ISSUE REPORT

A Healthier America 2013:

STRATEGIES TO MOVE FROM SICK CARE TO HEALTH CARE IN THE NEXT FOUR YEARS

Trust for America's Health

WWW.HEALTHYAMERICANS.ORG

JANUARY 2013

PREVENTING EPIDEMICS.
PROTECTING PEOPLE.

ACKNOWLEDGEMENTS

TRUST FOR AMERICA'S HEALTH IS A NON-PROFIT, NON-PARTISAN ORGANIZATION DEDICATED TO SAVING LIVES BY PROTECTING THE HEALTH OF EVERY COMMUNITY AND WORKING TO MAKE DISEASE PREVENTION A NATIONAL PRIORITY.

This report is supported by grants from the Robert Wood Johnson Foundation, W.K. Kellogg Foundation and The Kresge Foundation. TFAH thanks the foundations for their generous support. The opinions expressed in this report are those of the authors and do not necessarily reflect the views of the foundations.

TFAH BOARD OF DIRECTORS

Gail Christopher, DN*
President of the Board, TFAH
Vice President—Program Strategy
WK Kellogg Foundation

Cynthia M. Harris, PhD, DABT
Vice President of the Board, TFAH
Director and Professor
Institute of Public Health,
Florida A&M University

Theodore Spencer
Secretary of the Board, TFAH
Senior Advocate, Climate Center
Natural Resources Defense Council

Robert T. Harris, MD
Treasurer of the Board, TFAH
Former Chief Medical Officer and Senior Vice President for Healthcare
BlueCross BlueShield of North Carolina

David Fleming, MD*
Director of Public Health
Seattle King County, Washington

Arthur Garson, Jr., MD, MPH
Director, Center for Health Policy, University Professor, And Professor of Public Health Services
University of Virginia

John Gates, JD
Founder, Operator and Manager
Nashoba Brook Bakery

Alonzo Plough, MA, MPH, PhD*
Director, Emergency Preparedness and Response Program
Los Angeles County Department of Public Health

Eduardo Sanchez, MD, MPH
Chief Medical Officer
Blue Cross Blue Shield of Texas

Jane Silver, MPH*
President
Irene Diamond Fund

**TFAH Board Program Committee Member and served as expert reviewer of the Healthier America 2013 report. The opinions expressed in the report do not necessarily represent the views of these individuals or their organizations.*

REPORT AUTHORS

Jeffrey Levi, PhD.
Executive Director
Trust for America's Health and
Associate Professor in the Department of Health Policy
The George Washington University School of Public Health and Health Services

Laura M. Segal, MA
Director of Public Affairs
Trust for America's Health

Amanda Fuchs Miller, JD
President
Seventh Street Strategies

Albert Lang
Communications Manager
Trust for America's Health

CONTRIBUTORS

Richard Hamburg, MPA
Deputy Director
Trust for America's Health

Karen Hendricks, JD
Director of Policy Development
Trust for America's Health

Dara Alpert Lieberman, MPP
Senior Government Relations Manager
Trust for America's Health

Sue Pechilio Polis
Director of External Relations and Outreach
Trust for America's Health

Jack Rayburn
Government Relations Manager
Trust for America's Health

Rebecca Salay
Director of Government Relations
Trust for America's Health

Rebecca St. Laurent, JD
Health Policy Research Manager
Trust for America's Health

A Healthier America 2013:

STRATEGIES TO MOVE FROM SICK CARE TO HEALTH CARE IN THE NEXT FOUR YEARS

Every American should have the opportunity to be as healthy as he or she can be. Every community should be safe from threats to its health. And, all individuals and families should have a high level of services that protect and support their health, regardless of who they are or where they live.

But, right now, millions of Americans suffer from diseases that could have been prevented:

- Chronic diseases, such as type 2 diabetes and heart disease, are responsible for seven out of 10 deaths, 75 percent of the $2.5 trillion spent on U.S. medical care costs and billions of dollars in lost productivity each year.[1, 2]
- Infectious diseases, from the antibiotic-resistant Superbugs to Salmonella to the seasonal flu, disrupt lives and communities and result in more than $120 billion in direct costs and enormous indirect costs.[3]

While the numbers are shocking, they are not surprising. For decades, the health care system has been set up to treat people after they are sick rather than keeping them well in the first place. Our country has a sick care system, rather than a health care system.

In fact, today's children are on track to be the first generation in American history to live shorter, less healthy lives than their parents. Right now, more than half of Americans are living with one or more serious, chronic disease, ranging from type 2 diabetes to cancer. Those rates are expected to increase significantly over the next two decades, particularly due to the obesity epidemic.

America's health faces two possible futures. We can continue on the same track and resign millions of Americans to major health problems that could have been avoided, or we can invest in giving Americans the opportunity to be healthier while saving billions in health care costs and improving productivity.[4, 5]

Despite the fact that prevention is the most effective, common-sense way to improve health and reduce health care costs in the United States, there has never been a strong national focus on prevention to deliver the results the country needs to prosper and thrive.

Effective, affordable health care is essential for improving health, but what happens beyond the doctor's office also has a major impact on how healthy we are. There is increasing understanding of how important it is to combine good medical care with support in our daily lives.

Where we live, learn, work and play all make a difference - for better or worse. Nutritious school lunches, affordable healthy foods, safe places to live, convenient places to exercise, clean air and water and a range of other things contribute to how healthy we are. In fact, where you live can dramatically increase your chance of living a longer, healthier life, in some cases by as much as 13 years.[6]

Good health requires that we all take individual responsibility for ourselves and our families, but not everyone has the same opportunities to make healthy choices. Leadership across the country can help promote greater opportunities for all Americans to live healthy and productive lives.

Prevention – A Priority for 2013 and Beyond

The past several years have produced significant changes in the health care system. There has been universal acknowledgment that health care costs are unsustainable and that the focus has been too much on spending rather than on improving health.

Prevention must become a higher priority in America's health strategy in order to effectively contain costs and improve health.

- Keeping Americans healthier means fewer trips to the doctor's office, fewer tests, fewer prescription drugs, fewer sick days, fewer emergency room visits, fewer readmissions to hospitals and lower risk for a wide range of diseases.
- Public health professionals – who focus on improving the health of neighborhoods, workplaces and schools – are uniquely qualified to 1) diagnose the biggest, most expensive health problems in a community; 2) identify the most effective strategies to improve health and lower disease rates; and 3) partner with members of the community, health care providers, a range of government agencies and the private sector to deliver results.

In 2008, the Trust for America's Health (TFAH) issued the *Blueprint for a Healthier America: Modernizing the Federal Public Health System to Focus on Prevention and Preparedness*, which included a series of recommendations to make prevention a driving force in health care. Since then, a number of significant policy changes were enacted and have been providing new opportunities to help shift the paradigm from sick care to health care.

Some major prevention-related changes in the past four years have included:

1) A new focus on cost containment and improving health in the health care system;
2) A major expansion of the number of Americans and types of preventive services covered by insurance;
3) The creation of a National Prevention Strategy and Plan to find more ways across the federal government to support better health;
4) A new Prevention and Public Health Fund to provide $12.5 billion in mandatory appropriations over 10 years to local communities to improve health and reduce illness rates, which included Community Transformation Grants to allow local communities to tackle their most serious problems, including obesity and tobacco, using evidence-based prevention programs tied to strict performance measures; and
5) New community engagement and reporting requirements for nonprofit hospitals' community benefit programs.

In *A Healthier America 2013: Strategies to Move from Sick Care to Health Care in the Next Four Years*, TFAH provides the public, policymakers, public health officials and experts, partners from various sectors, and private and public organizations with an overview of the current status of a range of important public health policy areas, and identifies priority steps that should be taken to put prevention first in our health care system.

The report provides critical information to the broad and diverse groups involved in public health; encourages greater transparency and accountability of the system; and outlines high-impact recommendations to ensure the public health system meets today's needs and works across boundaries to meet its goals. Strategies must build on the progress that has been made and involve a wide range of partners to be successful. The two overall goals should be to:

- **Advance the nation's public health system.** This includes establishing a set of core capabilities; restructuring federal public health programs; and ensuring that public health departments at all levels receive adequate funding to focus on activities they are uniquely qualified to deliver.
- **Build partnerships within and outside of the health field.** Public health departments play a central role as chief health strategists for communities but cannot do all that is needed to improve their community's own health. To be effective in improving health in neighborhoods, workplaces and schools, strategies must involve a series of common-sense partnerships, including: 1) health care payers – both public and private insurers; 2) health care providers – through expanding health care models to include community prevention and working with hospitals to increase engagement in neighborhood prevention strategies; and 3) sectors beyond the health care system, such as education and transportation.

The *Healthier America 2013* report features a series of case studies from across the country that illustrate these strategies in action. These examples demonstrate how implementing the prevention initiatives and programs laid out in this report – through successful partnerships with health care payers, providers and other sectors – can provide a significant return on investment in terms of improved health and cost containment.

They demonstrate how effective, evidence-based programs are delivering results – preventing and controlling a range of chronic diseases, including some of the highest cost, most preventable conditions like type 2 diabetes and asthma.

In addition, this report highlights a series of 10 of TFAH's on-going public health priority initiatives: the obesity epidemic; preventing tobacco use and exposure; health and aging; addressing racial, ethnic and economic disparities; maternal and infant health; health and the environment; injury prevention; infectious disease prevention; public health emergency preparedness; and food safety.

This report is a resource for policymakers, the public health community, the health care system, a range of public and private partners and the public, as we begin to move prevention strategies forward and build on the progress the country has already achieved.

TABLE OF CONTENTS

SECTION I: HIGH-IMPACT PREVENTION POLICIES

A. Advance the Public Health System

1. Define "Foundational" Capabilities of Public Health Departments
2. Restructure Federal Public Health Programs
3. Ensure Sufficient and Stable Funding for Public Health Departments

B. Build Partnerships Within and Outside of the Health Care Field

1. Partner with Public and Private Payers
   a. Cover Preventive Services through Public and Private Payers
   b. Expand Medicaid and Private Insurer Coverage of Community Prevention
2. Partner with Health Care Providers
   a. Incorporate Prevention and Public Health in a Reforming Health Care System
   b. Partner with Nonprofit Hospitals to Maximize Community Benefit Programs' Impact on Prevention
3. Partner with Sectors Beyond the Health System
   a. Fully Maintain the Prevention and Public Health Fund
   b. Expand Community Transformation Grants to Benefit All Americans
   c. Implement the National Prevention Strategy
   d. Provide Wellness Programs to All American Workers

SECTION II: 10 TRUST FOR AMERICA'S HEALTH PRIORITY INITIATIVES

1. Reversing the Obesity Epidemic
2. Preventing Tobacco Use and Exposure
3. Encouraging Healthy Aging
4. Improving the Health of Low-Income and Minority Communities
5. Ensuring Healthy Women, Healthy Babies
6. Reducing Environmental Health Threats
7. Enhancing Injury Prevention
8. Preventing and Controlling Infectious Diseases
9. Prioritizing Health Emergencies and Bioterrorism Preparedness
10. Reforming Food Safety

no smoking
it is against the
law to smoke on
these premises

High-Priority Prevention Policies

SECTION 1

A. ADVANCE THE PUBLIC HEALTH SYSTEM

The public health system — composed of federal, state and local departments — must be modernized and maintained at a level that allows the field to focus on activities it is uniquely qualified to deliver in the most effective way. In order to do this, health departments at the federal, state and local levels must establish foundational capabilities to ensure consistent, basic levels of protection across the country; federal public health programs need to be restructured; and public health departments at all levels must receive adequate funding.

1. DEFINE "FOUNDATIONAL" CAPABILITIES OF PUBLIC HEALTH DEPARTMENTS

Current Status:

Public health departments around the country have the unique role and responsibility for improving health in schools, workplaces and neighborhoods, through identifying the top health problems and developing strategies for improvement.

As of 2012, however, the field of public health faces a new set of challenges and opportunities, including:

- Changes in the overall health system that emphasizes cost containment and improved health, and expansion of the number of individuals with insurance coverage for direct preventive services;
- Massive budget and workforce cuts at all levels of government;
- A growing focus on accountability, with higher expectations for demonstrating a return on investment in terms of cost and health improvement. This includes a movement toward accreditation to ensure that all health departments meet and can demonstrate a standardized set of core capabilities; and
- Adoption of new technologies, including electronic health records, which could allow public health to integrate and analyze data with the health system and other sectors to better identify health patterns, causes and cures for health problems, and "hot spot" areas with high rates of chronic diseases and costs.

Why Public Health Departments Matter:

- Where you live shouldn't determine how healthy you are, and public health departments serve as the unique and essential component of an integrated health system that looks out for the population as a whole, rather than focusing on the health outcomes of individuals alone.
- Public health is responsible for identifying the biggest, highest cost health problems and developing the most effective strategies for improving health.
- Public health departments bring together partners in states, counties, cities and communities around the country to assess community-specific needs, and to plan and implement activities designed to improve health outcomes and reduce health care expenditures.
- Public health plays an essential role in protecting Americans' health from threats ranging from bioterrorism to infectious disease outbreaks to extreme weather events.

Recommendations:

▲ **Strengthen the role of Health Departments as the chief health strategist in communities:** In response to the new challenges and opportunities confronting our nation in 2013, public health departments must assume greater accountability for the design and development of the overall strategic plan for improving health in communities. To do this, health departments must clearly establish their value and role in a reformed health system — especially in the identification, implementation, coordination and evaluation of cost-beneficial prevention programs and activities. Strengthening this role will also require a greater focus on efficient, effective practices for structure, organization, finance, and delivery of public health, including on-going public health services and systems research to identify new evidence-based practice and approaches.

- **Define, prioritize and fully fund a set of foundational capabilities for public health departments at all levels of government:** Public health departments need the tools and skills that are necessary to provide basic public protections while adapting to and effectively addressing changing health threats. The Institute of Medicine (IOM) and the Transforming Public Health project, funded by the Robert Wood Johnson Foundation (RWJF), identified some of these foundational capabilities as developing policy, using integrated data assets, communicating with the public and other audiences to disseminate information, mobilizing the community and forging partnerships, cultivating leadership skills, and demonstrating accountability and protecting the public in the event of an emergency or disaster.[7, 8] Ensuring these foundational capabilities should become a primary focus of federal, state and local funding, even if it means restructuring some categorical funding streams, and funding must be maintained at a level to guarantee these capabilities can be effectively maintained and delivered.

- **Prioritize accountability for achieving and maintaining foundational capabilities through accreditation and other mechanisms:** Accreditation, continuous quality improvement and transparency are important parts of ensuring these foundational capabilities are met and maintained. Specifically, achieving voluntary accreditation from the Public Health Accreditation Board (PHAB) is a process where governmental public health departments can begin to demonstrate core competencies and accountability. In the future, accreditation could also be used as an important mechanism for states and localities to more easily and efficiently demonstrate that they have met the capabilities required for federal funding opportunities.

- **Integrate with health care providers to contain costs and improve health:** Public health departments must adapt to work with new entities and financing mechanisms in the reformed health system, such as by working with Accountable Care Organizations (ACOs) or within new capitalized care structures and global health budgets, to help improve health beyond the doctor's office.

- **Partner with other sectors and members of the community to make healthier choices easier in our schools, workplaces and neighborhoods:** Public health officials must work with other sectors, such as education, transportation and housing, to capitalize on the many opportunities to promote health and wellness where Americans live, learn, work and play.

- **Develop a public health workforce to meet modern demands:** The future public health workforce should be more versatile and better equipped to handle various public health challenges or threats. This workforce should have policy development skills, management/administrative skills, technological skills, and communications skills needed to create the foundational capabilities that all health departments should have. Public health workers also must be able to draw from and work with other fields and overlapping disciplines such as education, transportation and the environment and receive continued re-training and professional development opportunities to meet evolving needs. In addition:

  - The public health workforce measures in the Affordable Care Act (ACA) must be fully funded and implemented;
  - Public health curricula and job re-training must include developing skills in Health Information Technology (HIT), policy and legal areas, and cross-sector management; and
  - Training programs for health workers, including community health workers and HIT professionals, and in other sectors where programs impact health must emphasize the need for multiple sectors to work in coordination.

- **Use modern technology to improve the ability to identify top health problems in a community and determine their causes and cures:** New data systems and electronic health records (EHRs) have the potential to revolutionize health tracking by making it possible to collect and analyze health data in real-time and allow interactive communication among providers, health departments and other sectors. Instead of continuing to have a series of siloed systems to track different diseases and other health problems, connecting different sources of data so they are interoperable and available in real-time could lead to breakthroughs in identifying health trends and patterns. In addition, public health must monitor a range of factors — from educational attainment to employment — that impact health outcomes even if they are not under the direct purview of public health.

- **Public health departments should only pay for direct services when they cannot be paid for by insurance:** Some public health departments provide direct services in their community along with other preventive programs. Since the ACA will expand the num-

ber of individuals with coverage and expand what services are covered by many insurance providers, public health departments should reassess their role in the direct provision of medical services (including the option of becoming a Federally Qualified Health Center), to ensure that they do not use their public health budgets to pay for services that could be billed to insurers or could be paid for through health center dollars.

DEFINING FOUNDATIONAL CAPABILITIES FOR PUBLIC HEALTH

In their April 2012 report, *For the Public's Health: Investing in a Healthier Future*, the IOM called for increased focus and prioritization among governmental public health agencies. They identified a set of "foundational capabilities" that included:[9]

- Information systems and resources;
- Health planning;
- Partnership development and community mobilization;
- Policy development analysis and decision support;
- Communication; and
- Public health research, evaluation and quality improvement.

Following the IOM report, a group of leading public health experts participated in the Transforming Public Health project, an initiative funded by RWJF to develop guidance for public health officials and policymakers to prioritize vital public health functions in a shifting political landscape.[10]

They summarized the foundational capabilities of public health as:

- Developing policy to effectively promote and improve health;
- Using integrated data sets for assessment, surveillance and evaluation to identify crucial health challenges, best practices and better health;
- Communicating with the public and other audiences to disseminate and receive information in an effective manner for health, including health promotion opportunities, access to care and prevention;
- Mobilizing the community and forging partnerships to leverage resources (funding and otherwise);
- Building new models that integrate clinical and population health;
- Cultivating leadership, organization, management and business skills needed to build and sustain an effective health department and workforce to effectively and efficiently promote and improve health;
- Demonstrating accountability for what governmental public health does directly and for those things that it oversees through accreditation, continuous quality improvement and transparency; and
- Protecting the public in the event of an emergency or disaster, as well as responding to day-to-day challenges or threats, with a cross-trained workforce.

The project also identified a set of additional important issues for public health departments to consider, which include:

- Maintaining a culture of continuous quality improvement;
- Improving coordination across all levels of government to foster synergy and efficiency;
- Building a better and cross-trained workforce that is more versatile and well equipped to handle a range of public health needs;
- Bolstering research, by capitalizing on improved technology to access and analyze data, to better demonstrate the value of public health and prevention services and programs; and
- Ensuring sufficient, stable and sustainable funding for public health, including leveraging resources from non-traditional sources that also have an interest in improving health, such as across government agencies and from the health care sector, private industry, non-profit fundraising and community development.

The project stressed that "prioritizing is the only way to take on new challenges in a time of declining resources." To be successful in the future, public health should focus on:[11]

- Ensuring what is being done is being done as well and as efficiently as possible;
- Coordinating across all levels of the governmental public health system and other government agencies and jurisdictions to maximize impact; and
- Cultivating and/or training a workforce that can deliver foundational capabilities when implementing programs.

PUBLIC HEALTH ACCREDITATION

The PHAB, created in 2007, has created a voluntary public health accreditation program for state and local public health departments.[12] This accreditation process is a major effort to improve and standardize core capabilities of health departments.

The PHAB administers the national public health department accreditation program for public health departments operated by Tribes, states, local jurisdictions and territories.[13] PHAB accreditations include domains (groups of standards that pertain to a broad group of public health services), standards (the required level of achievement that a health department is expected to meet), and measures (evaluation tools for meeting standards).

There are 12 domains. The first ten domains address the 10 Essential Public Health Services; domain 11 addresses management and administration; and domain 12 addresses governance.[14]

The 12 domains include:

Domain 1: Conduct and disseminate assessments focused on population health status and public health issues facing the community.

Domain 2: Investigate health problems and environmental public health hazards to protect the community.

Domain 3: Inform and educate about public health issues and function.

Domain 4: Engage with the community to identify and address health problems.

Domain 5: Develop public health policies and plans.

Domain 6: Enforce Public Health Laws.

Domain 7: Promote strategies to improve access to health care services.

Domain 8: Maintain a competent public health workforce.

Domain 9: Evaluate and continuously improve health department processes, programs and interventions.

Domain 10: Contribute to and apply the evidence base of public health.

Domain 11: Maintain administrative and management capacity.

Domain 12: Maintain capacity to engage the public health governing entity.

Standard 5.4 focuses specifically on preparedness and requires that public health departments maintain an all hazards emergency operations plan. In order to become accredited, a health department must:[15]

- Participate in the process for the development and maintenance of an All Hazards Emergency Operations Plan (EOP);
- Adopt and maintain a public health EOP; and
- Provide consultation and/or technical assistance to Tribal and local health departments in the state regarding evidence-based and/or promising practices/templates in EOP development and testing.

2. RESTRUCTURE FEDERAL PUBLIC HEALTH PROGRAMS

Current Status:

Federal health agencies are responsible for protecting the health of Americans. Key public health functions include setting national priorities and goals for the country's health and providing funding and other support to states and communities that carry out prevention programs and services aimed at improving health.

Based on budget and scale, delivery of health care services dominate the time and attention of the senior leadership at the U.S. Department of Health and Human Services (HHS) and dramatically overshadow public health. For example, more than 80 percent of the HHS budget is devoted to the Centers for Medicare and Medicaid Services (CMS). With only four percent of the HHS budget, the budget for the National Institutes of Health (NIH) is still more than the combined budget for the agencies focused on public health and prevention, including Center for Disease Control and Prevention (CDC), the Substance Abuse and Mental Health Services Administration (SAMHSA), the Health Resources and Services Administration (HRSA) and the U.S. Food and Drug Administration (FDA).[16] Currently, there is only one Deputy Secretary to manage all health care, biomedical and public health agencies and offices.

Many of the existing public health agencies have a broad range of responsibilities and functions, from funding and overseeing direct providers of health services to public health science and research. It has been decades since changes have been made to the way the federal government structures its health care roles and programs outside of Medicare and Medicaid. With the passage of the ACA and the increase in insurance coverage of direct prevention services, it is time to consider restructuring and realigning federal public health agencies.

Why Restructuring Matters:

- The current federal structure for handling public health issues is not coordinated and lacks clear, strong leadership. The Assistant Secretary of Health (ASH) does not have line or budget authority over public health programs across HHS.
- At CDC, programs are often siloed and based on diseases and conditions, such as type 2 diabetes and heart disease, rather than integrated and focused on the prevention strategies that can help improve health overall, such as promoting better nutrition and increased activity.
- Currently, there are more than 300 different health surveillance systems or networks supported by the federal government.[17]

Recommendations:

- **Improve efficiencies of programs at CDC through strategic realignments and integration:** CDC has undertaken a series of efforts to find ways to better coordinate and align interrelated health issues, activities and prevention strategies, but implementation of this approach and vision has only been carried out to a very limited extent. For instance, efforts to realign chronic disease programs at CDC based on the most effective prevention strategies rather than by categorical diseases have not been realized and the implementation of a vision for program collaboration and service integration (PSCI) for the National Center for HIV/AIDS, Viral Hepatitis, STD and TB Prevention has been limited.
- **Evaluate the possibility of increased integration and flexibility of CDC's grants to state and local health departments in exchange for increased accountability:** Currently, state and local health departments often have cumbersome and duplicative administrative requirements for multiple grants they receive from CDC. An evaluation should be conducted to determine how different CDC grants could be integrated, and whether more flexibility could be provided to grantees to cut down on red tape if state and local health departments meet certain accountability standards. CDC officially recommends increasing grant funding flexibility along with creating standard approaches and quality improvement measures to be defined in collaboration with State, Tribal, Local and Territorial (STLT) health departments.[18]
- **HRSA, SAMHSA and CDC should become payers of last resort for direct services:** All grantees of federal public health agencies that provide direct services that can be billed to a client's insurance (private insurance, Children's Health Insurance Program (CHIP), Medicare or Medicaid) should be required to do so. Only those services not covered by insurance — or services provided to those who remain uninsured — should be paid for with scarce discretionary dollars from the public health program budgets. Some health programs may need assistance in instituting reimbursement procedures.

- **Consolidate federally-supported public health surveillance systems:** New data systems and EHRs have the potential to revolutionize epidemiology by making it possible to collect and analyze health data in real-time and allow interactive communication among providers, health departments and other sectors. Instead of continuing to have a series of siloed systems to track different problems, connecting different sources of data so they are interoperable and available in real-time could lead to breakthroughs in identifying health trends and patterns, and identifying causes and health problems. The federal government should clarify and promote mechanisms for exchange of data between the private sector and public health departments in a way that is permissible under the law and maintains appropriate individual privacy protection.

- **Appoint an independent group of experts, such as by creating a committee at the IOM, National Academy for Public Administration, and/or think tank initiative, to evaluate possible ways to restructure public health agencies to improve and align functions and services.** This evaluation should consider all of the below options to determine which changes, if any, would create improvements and cost savings. The evaluation should include recommendations for the timing and coordination of the different possibilities, so any transitions would be carried out as effectively as possible.

Assess the need for an Undersecretary or Deputy Secretary for Health: There should be an evaluation of whether the creation of an Undersecretary or Deputy Secretary position to oversee a strategic approach to prevention, preparedness and public health would help increase coordination and accountability among agencies. This review should determine whether all Public Health Service agencies, the Assistant Secretary for Preparedness and Response (ASPR) and CMS should report to this official. This position is not meant to dis-empower agencies or add another bureaucratic layer, but to help coordinate and provide leadership. Further, the person in this position and the Secretary should have integrated budget and policy analysis staff to avoid duplication and multiple layers of review.

Evaluate if restructuring of agencies based on functions would be more efficient and effective: An evaluation should explore if restructuring based on alignment of functions would help agencies better fulfill their missions. Currently, a number of different agencies provide support for delivery of health services and also oversee public health research and programs. Aligning agencies based on functions and core competencies could potentially lead to increased efficiencies and improved capabilities. One high priority would be SAMSHA and HRSA, which have different, but very related responsibilities for direct service delivery. SAMHSA focuses on reducing the impact of substance abuse and mental illness in America's communities, while HRSA focuses on improving clinical and related supportive services for vulnerable populations, especially the poor, uninsured, mothers and children, and people living with HIV/AIDS. While they focus on different health problems, the two agencies have many overlapping functions and serve overlapping populations. In addition, philosophically the health care system is moving toward closer integration and equity between clinical and behavioral health care. An evaluation could examine if it would improve efficiencies and quality by merging the delivery services functions of the various public health agencies.

A similar assessment should be conducted regarding the public health science, practice research, and workforce development functions that cut across CDC, HRSA, SAMHSA and the Agency for Healthcare Research and Quality (AHRQ). An integrated approach to this work could help close the gap between prevention and health promotion and direct health care services within the department.

Determine the most effective structure for protecting food and drug safety: Many food safety advocates have long called for an independent, unified food safety agency to bring together the diverse regulatory activities related to food safety across HHS and the U.S. Department of Agriculture (USDA), in order to be able to singularly and effectively focus on carrying out an integrated, risk-based, prevention-focused strategy. As a first step, the food safety functions at the FDA should be unified and strengthened so that the agency can effectively carry out the improvements called for in the Food Safety Modernization Act. In addition, a government-wide assessment and plan with a specific timeline and sufficient resources to carry out recommendations should be developed to unify all regulatory food safety functions and to coordinate research and outbreak investigation activities to best inform regulation and policy development.

▲ **Define a modern role for the Surgeon General:** Historically, the Surgeon General has held a strong public-facing position as the nation's doctor to provide unbiased advice to the public. However, over time, the office has been severely diminished, both in stature and financing. Currently, the office primarily serves to oversee the Public Health Service Commissioned Corps, the National Prevention, Health Promotion, and Public Health Council and an Advisory Group on Prevention, Health Promotion, and Integrative and Public Health. A review committee should examine how to reinvigorate the role of the Surgeon General to ensure strong national leadership on the major health issues and epidemics facing the country.

3. ENSURE SUFFICIENT AND STABLE FUNDING FOR PUBLIC HEALTH DEPARTMENTS

Current Status:

Public health departments at all levels of government have been chronically underfunded for decades. Federal funds are distributed through a mixture of population-based formula grant programs, formulas based on disease rates, and a series of competitive grants which provide funding to some states but not others. In most cases, there is no officially defined mode of coordination for targeting or strategically focusing the funds.

According to a 2008 analysis by The New York Academy of Medicine (NYAM), there was a shortfall of $20 billion per year in spending on federal, state and local public health.[19]

At the federal level, the budget for CDC decreased from a high of $6.62 billion in 2005 to $6.32 billion in 2011 (adjusted for inflation). Between fiscal year (FY) 2010 through FY 2012, federal public health spending was reduced 8 percent — by $2.5 billion. In FY 2011, federal public health spending through CDC averaged only $20.28 per person. The amount of federal funding varied significantly from state to state, with a low of $14.20 in Ohio and a high of $51.98 in Alaska.

At the state level, 40 states decreased their public health budgets between FY 2009-10 and FY 2010-11; 30 states decreased budgets for a second year in a row; and 15 for three years in a row. In FY 2011, the median state funding for public health was $30.09 per capita, down from $33.71 in FY 2008.

At the local level, in July 2011, nearly half of local health departments reported reduced budgets, on top of the 44 percent that reported lower budgets in November 2010. More than half of local health departments expect further cuts to their budgets in the upcoming fiscal year.

Since 2008, state and local public health departments have lost a combined total of more than 45,700 jobs.[20, 21]

Why Federal Public Health Funding Matters:

- Federal, state and local public health departments' ability to carry out many core functions that most Americans take for granted — including basic infectious disease prevention and food and water safety programs — have been hampered due to limited funds.
- Chronic diseases are responsible for seven of 10 deaths among Americans each year and treatment for people with chronic conditions account for roughly 75 percent of the $2.5 trillion spent on annual U.S. medical care costs. In addition to the direct costs, indirect costs of chronic conditions, including productivity losses, compound the problem. The best way to avoid these costs is through prevention beyond the doctor's office — changing the behaviors that result in these chronic conditions.

Recommendations:

▲ **Increase funding for public health at the federal, state and local levels:** A number of independent evaluations have concluded that public health is severely underfunded in the United States. To carry out core capabilities as defined by the IOM and Transforming Public Health project, federal, state and local health departments must receive a sufficient level of funding, and some existing funding lines may need to be realigned. Even in tough budget times, funding must be increased to sufficient levels for current public health and prevention programs to be effective in improving health and lowering disease rates across the country, which, in turn, will help contain health care costs. The use of all federal public health funds, and the outcomes achieved from the use of funds, must be transparent and clearly communicated with the public. Accreditation can be an important tool to measure if states and localities are meeting foundational capabilities.

- **Ensure all Americans are protected by a minimum set of public health services:** Through the ACA, as a nation, we have established ensuring a minimum set of essential health benefits for all Americans with health care coverage. Since so much of what impacts health happens beyond the doctor's office where people live, learn, work and play, it is also important to make sure that all Americans are protected by a minimum set of public health services. An established set of minimal or baseline services could then be equated to costs to maintain those services on a per capita basis, which would help standardize and rationalize funding for public health.

- **Explore new funding models to guarantee sufficient levels of funding to support basic capabilities.**

- **Evaluate the possibility of a model of shared federal-state-local-tribal responsibility for delivering foundational capabilities and maintenance of programs and funding:** Currently, funding for governmental public health activities differs dramatically for every state, based on a combination of categorical federal funds and discretionary allocations from state and local governments, and there is no rational model for ensuring base-level support for public health. A 2008 analysis by NYAM found that approximately 60 percent of public health funding is federal and 40 percent is a blend of state and local funds, although the exact amounts are variable by state.[22] According to the Association of State and Territorial Health Officials (ASTHO), federal funds are the largest source of state health agency revenue (approximately 45 percent in FY 2009) — around 60 percent of which goes to local health departments and community-based organizations.[23] It is worth examining the potential of a funding system for public health that sets a basic standard that every state and locality must meet, such as demonstrating the ability to deliver the foundational capabilities, as verified through a process such as accreditation, while also providing flexibility based on the states' decisions, need and governmental structure.

  Medicaid provides one example for how the federal government and states can work together to set basic national eligibility and benefit standards. This model allows for flexibility in implementation as long as certain standards are met and provides special incentives for states that embrace new program elements by increasing the federal match. Such a system would have to 1) set standards for federal matches for state and local public health funding; 2) establish a maintenance of effort standard so that current levels of state and local public health funding — for every given state based on their existing funding structures — are set as a baseline as they are with Medicaid — and so states are not hit with new unfunded mandates; and 3) standardize federal match levels based on priorities, such as an 80-20 split for basic capacities; a 60-40 split for priority program areas; and a 50-50 split for other categorical efforts. New federal requirements would need to start with an initial 100 percent federal commitment that could be brought down into the existing splits over time. This system could be managed within CDC's existing structure or through a restructured federal public health system. Given the diversity of approaches to public health across the states, CDC would need to establish a system that assures that any agreement between the CDC and a state includes concurrence from the participating local health departments.

- **Examine a new model that increases flexibility for state and local health departments that demonstrate core capabilities:** One alternative option for stabilizing funding would be to assess the feasibility of moving away from CDC's existing model of funding, which includes a series of categorical grants, and move toward a combination of foundational capability grants with strict performance measures that would be the buildings blocks for categorical and disease specific grants. Currently, for instance, grants for epidemiological, laboratory and surveillance support are administered separately and are also divided from grants for diseases or conditions they are working to prevent or control. Grants stressing flexibility and accountability should be structured to help all states reach and maintain the foundational capabilities defined by the IOM report and Transforming Public Health project.

B. BUILD PARTNERSHIPS WITHIN AND OUTSIDE OF THE HEALTH CARE FIELD

Public health departments play a central role as chief health strategists for communities but they cannot improve their community's health on their own. To be effective in improving health in neighborhoods, workplaces and schools, strategies must involve a series of common-sense partnerships.

Effective partnerships take an integrative, innovative approach to solving problems in communities. They can help achieve benefits across different sectors and remove obstacles to problem-solving. These partnerships can help improve health while also providing benefits for the economy, housing, transportation, education and other sectors.

In the past year, TFAH consulted with a wide range of experts from public health, health care and other fields to identify common principles that have helped some communities build successful partnerships. The principles include:

- Identifying a common goal and an initial issue to focus on;
- Restructuring or realigning existing funding mechanisms, including across organizations and government agencies;
- Providing financial incentives such as a method for shared savings;
- Sharing access to data to identify problems and measure achievements; and
- Establishing a lead partner.

1. PARTNER WITH PUBLIC AND PRIVATE HEALTH CARE PAYERS

While both private insurers and public health care coverage traditionally focus on paying for health care services at the doctor's office and in hospitals, those health care services are generally insufficient or come too late. Research shows that it is critical to support preventive services at the doctor's office and also give individuals the opportunity to take care of themselves and their families outside the doctor's office. Our health care system must reimburse for those services in an equal manner.

a. Expand Coverage of Preventive Services by Public and Private Payers

Current Status:

Under the ACA, private insurers and self-funded employer insurance plans are required to cover a range of preventive services at no cost to the patient. The new preventive services fall under four broad categories: 1) evidence-based screenings and counseling, 2) routine immunizations, 3) preventive services for children and youth, and 4) preventive services for women.

- **Evidence-based screenings and counseling:** Services that receive an "A" or "B" rating from the United States Preventive Services Task Force (USPSTF) — an independent group of national experts that makes evidence-based recommendations about clinical preventive services including, but not limited to, screenings for obesity, cancer, HIV and cholesterol, and drug and tobacco cessation counseling.[24]
- **Routine immunizations:** Routine immunizations recommended by the CDC's Advisory Committee on Immunization Practices (ACIP).
- **Preventive services for children and youth:** A variety of preventive services specified by evidence-based guidelines, such as behavioral and developmental assessments and screening for autism and certain genetic diseases.
- **Preventive services for women:** Women's evidence-based preventive services as specified by HRSA, including annual well-woman visits, STI and HIV testing, and breastfeeding support. FDA-approved contraception methods prescribed by a physician are also covered, although certain plans are exempt from the requirement.[25]

The ACA also includes expanded prevention coverage for Medicare beneficiaries, starting in January 2011, including a new annual wellness visit and a personalized prevention plan, and the elimination of cost-sharing for most preventive services covered by Medicare.

States that choose to expand their Medicaid programs, beginning in 2014, will enroll most new beneficiaries in Medicaid expansion plans. These plans will likely have to cover the same preventive services as private insurers.

Beginning January 1, 2013, states' "traditional" Medicaid programs will have the opportunity to receive a one percent point increase in their federal matching rate if they cover the immunizations recommended by ACIP and the preventive services rated "A" or "B" by USPSTF, without charging cost-sharing for these services.

Why Expanding Coverage of Preventive Services Matters:

- According to the Partnership for Prevention, more than 100,000 lives could be saved annually by increasing the use of just five clinical preventive services.[26] However, close to half of the U.S. adult population does not use the commonly recommended clinical preventive services, and Healthy People 2020 reports low levels of use of important preventive services.[27] While the uninsured often have the lowest preventive services utilization rates, cost is a barrier even for those with health insurance.[28]
- According to Health Affairs, a greater use of 20 proven clinical preventive services would save more than two million lives annually and could result in savings of $3.7 billion annually.[29]
- A 2012 survey by the Kaiser Commission on Medicaid and the Uninsured found that many states require co-pays or cost-sharing from beneficiaries for many preventive services, and will continue to require these co-pays even after they are eliminated for beneficiaries covered by group private insurance coverage under the ACA. For instance, of the 48 state Medicaid programs that cover breast cancer screening mammography, 13 require a co-payment from the patient.[30]

Recommendations:

- **The government and private insurers should implement policies and programs to increase utilization of preventive services, particularly among communities with under usage.**
- **All insurers should eliminate co-pays for USPSTF A and B services. In particular, Medicare and state Medicaid programs should meet, at the minimum, the requirements set by the ACA for private insurers and self-insurers.**
- **The Medicare program should ensure that all beneficiaries are aware of the increased coverage and elimination of most co-pays for preventive services in order to help encourage increased use of these services.**
- **A mechanism must be created to review and reconcile inconsistencies in preventive services recommendations and benefit coverage, in order to ensure full coverage of the most effective preventive services across all payers and protect population health in addition to individual benefit.** All forms of insurance, including Medicare, Medicaid and private payers, should be required to cover all USPSTF's A and B level recommendations. In addition, there should be a way to reconcile differences in recommendations from the CDC and USPSTF. For instance, because CDC's recommendations are based on stopping the spread of disease as well as treating individuals and the USPSTF considers individual benefit of services, there were delays in coverage for effective HIV prevention services and continue to be delays in coverage of hepatitis prevention.

ADULTS: PREVENTIVE SERVICES COVERED UNDER THE ACA

- Abdominal Aortic Aneurysm Screening
- Alcohol Misuse Screening
- Aspirin Use
- Blood Pressure Screening
- Cholesterol Screening
- Colorectal Cancer Screening
- Depression Screening
- Type 2 Diabetes Screening
- Diet Counseling
- HIV Screening
- Immunization Vaccines
- Obesity Screening
- Sexually Transmitted Infection Prevention Counseling
- Tobacco Use Screening and Tobacco Cessation Interventions
- Syphilis Screening

WOMEN: PREVENTIVE SERVICES COVERED UNDER THE ACA

- Anemia Screening
- Bacteriuria Urinary Tract or Other Infection Screenings
- Breast Cancer Mammography Screenings
- Breast Cancer Chemoprevention Counseling
- Cervical Cancer Screening
- Chlamydia Infection Screening
- Contraception
- Domestic and Interpersonal Violence Screening and Counseling
- Folic Acid Supplements
- Gestational Diabetes Screening
- Gonorrhea Screening
- Hepatitis B Screening
- HIV Screening and Counseling
- HPV DNA Test
- Osteoporosis Screening
- Rh Incompatibility Screening
- Tobacco Use Screening and Interventions
- Sexually Transmitted Infections Counseling
- Syphilis Screening
- Well-woman Visits

CHILDREN: PREVENTIVE SERVICES COVERED UNDER THE ACA

- Alcohol and Drug Use Assessments
- Autism Screening
- Behavior Assessments
- Blood Pressure Screening
- Cervical Dysplasia Screening
- Congential Hypthyroidism Screening
- Depression Screening
- Development Screening
- Dyslipidemia Screening
- Flouride Chemoprevention Supplements
- Gonorrhea Prevention Medication
- Hearing Screening
- Height, Weight and Body Index Measurements
- Hematocrit and Hemoglobin Screening
- Hemoglobinopathies or Sickle Cell Screening
- HIV Screening
- Immunization Vaccines
- Iron Supplements
- Lead Screening
- Medical History
- Obesity Screening and Counseling
- Oral Health Risk Assessment
- Phenylketonuria Screening
- Sexually Transmitted Infection Prevention and Screening
- Tuberculin Testing
- Vision Screening

MEDICARE BENEFICIARES: PREVENTIVE SERVICES COVERED UNDER THE ACA

- Abdominal Aortic Aneurysm Screening
- Alcohol Misuse Screening and Counseling
- Bone Mass Measurement
- Cardiovascular Disease (Behavioral Therapy)
- Cardiovascular Screenings
- Colorectal Cancer Screenings
- Depression Screening
- Diabetes Screening
- Diabetes Self-Management Training
- Flu Shots
- Glaucoma Tests
- Hepatitis B Shots
- HIV Screening
- Mammogram Screening
- Medical Nutrition Therapy Services
- Obesity Screening and Counseling
- Pap Test and Pelvic Exam (and Breast Exam)
- Pneumococcal Shot
- Preventive Visits
- Prostrate Cancer Screenings
- Sexually Transmitted Infections Screening and Counseling
- Tobacco Use Cessation Counseling

b. Expand Medicaid and Private Insurer Coverage of Community Prevention Programs

Current Status:

Public and private insurers have traditionally focused on reimbursing activities that happen directly within health-care settings. However, there is growing evidence that Americans cannot achieve health goals without support to follow advice from their doctor in their daily lives — in neighborhoods, workplaces and schools. Examples of community-based prevention programs include diabetes prevention initiatives that help promote physical activity and good nutrition and smoking cessation support groups. A number of public and private insurers have started to cover evidence-based prevention programs in communities, but currently these efforts are limited and have been constrained by legacy systems that focus on individual beneficiaries and fee-for-service models. For instance, current authority enables states to support prevention, health education and counseling when these services are delivered by Medicaid-participating providers directly to Medicaid beneficiaries in the traditional Medicaid program, regardless of where the services are delivered. However, states are more constrained in their ability to offer services that have not traditionally been covered, such as counselors at the YMCA or community health workers.

Why Expanding Medicaid and Private Insurer Coverage of Community Prevention Programs Matters:

- Two-thirds of Americans are overweight or obese and around 20 percent of adults smoke. Chronic conditions, many of which are related to obesity, lack of physical activity and tobacco, are among the biggest drivers of both public and private health care costs. Limiting support to care provided in health care settings has proven unsuccessful in reducing these disease rates.
- Within Medicaid, 78 percent of program spending on non-institutionalized beneficiaries is spent on the 40 percent of individuals who have chronic health conditions.[31]
- Currently, Medicaid reimbursement cannot be provided for a program if that program helps a community or group that has both Medicaid beneficiaries and those not eligible for Medicaid as members.
- Many states do not currently support or authorize using Medicaid funds for community-based prevention programs. While some states have supported community-based prevention initiatives through managed care arrangements or disease management programs under existing authority, the scope and use of this authority has not been emphasized or made clear to all states.

Recommendations:

▲ **Expand Medicaid coverage of community prevention programs.**

Clarify states' ability to reimburse a broader array of health providers and pay for additional covered services. The Medicaid program should formally recognize, in direct communication with the states, the importance of community-based providers, services and programs in preventing disease and delaying progression of chronic diseases. First, they should allow services from different practitioners — including nutritionists and health educators — to be covered. Under the regulation for optional preventive services, the phrase "physician or other licensed practitioners" should include any practitioner who has gone through a state-approved certification program. Second, they should clarify that states are allowed to pay for group health education classes as part of their care.

- Examples of community prevention programs that states should be explicitly permitted to fund through their Medicaid programs: Establish group wellness programs through a community-based organization, such as a YMCA or a community center, that includes exercise classes, wellness classes and individualized coaching on lifestyle behavior changes; develop a workplace wellness initiative targeting small businesses with low-wage workers — some of whom will be Medicaid beneficiaries, while others will not qualify for coverage under current program rules; create a partnership between a children's hospital and a youth-serving organization to develop an education and coaching program for parents of premature infants, regardless of insurance status; develop a public health department-led community prevention and coaching initiative on healthy eating, exercise, parenting and other aspects of wellness that targets low-income neighborhoods, where many, but not all, residents would be Medicaid beneficiaries; and allow a community-based asthma management initiative to purchase items (such as heap filters and high-powered vacuum cleaners) and services that are not traditionally covered by Medicaid, but are needed to manage a child's indoor environment, or allowing the family to purchase these items and services themselves.[32]

Expand states' ability to reimburse additional entities. CMS should clarify that states may reimburse community-based organizations, public health departments and other entities (such as schools) for community-based prevention, health education and counseling activities.

Identify and disseminate community prevention best practices by Medicaid programs. CMS should document and provide information to every state about the best practices, implementation tools, and health and cost saving outcomes of community prevention activities currently supported by Medicaid programs.

▲ **Use new Medicaid health homes to improve coordination of health and other services for low-income Americans.** The Affordable Care Act's Medicaid health homes provision offers states a new opportunity to provide a point of coordinated care of not only health care and public health services but also a range of other support services, such as housing and food assistance, to lower-income and vulnerable Americans. The Medicaid health home option allows states to incentivize providers to offer a range of care management and coordination services for Medicaid beneficiaries with two chronic conditions, or with one chronic condition and at risk of another. When states begin the ACA Medicaid expansion in 2014, another 11 million low-income beneficiaries will be potentially eligible for these Medicaid health home services. Public health departments can partner with a range of government and community groups to ensure improved delivery of the range of services available to help individuals enrolled in Medicaid health homes. Many of these supportive services can make a big difference in both improving quality outcomes and reducing cost.

▲ **Expand private insurance coverage of community prevention programs.** Private insurers must also increase support for community-based prevention programs so their beneficiaries and the larger community they serve have the opportunity to take part in effective, evidence-based programs to support them where they live, learn, work and play.

HOW IT'S WORKING

Public Partners:

- **The National Diabetes Prevention Program (DPP) is a 16-week lifestyle improvement program for individuals at high-risk for diabetes.** This program engages individuals in group education with a trained lifestyle coach, focusing on improved eating habits, increased physical activity, and other behavior modifications. UnitedHealth Group began partnering with the YMCA in 2010 to replicate this program in additional settings, working with pharmacist-led education and behavioral intervention initiatives within the pharmacy setting at Walgreens. Some states help support DPP via public-private partnerships with Medicaid.

- **The Asthma Network of West Michigan provides intensive home-based case management to low-income children and adults with moderate to severe asthma, which includes support from state Medicaid.** This program encompasses 12 months of home visits by trained professionals, which cover environmental assessments, patient and caregiver education on asthma management and trigger avoidance. The Network estimates that the case management program generates net per child savings of $800 per year.[33] The Network also sponsors a week-long Asthma Camp that educates children in asthma management techniques in addition to engaging them in regular summer camp activities.

Private Partners:

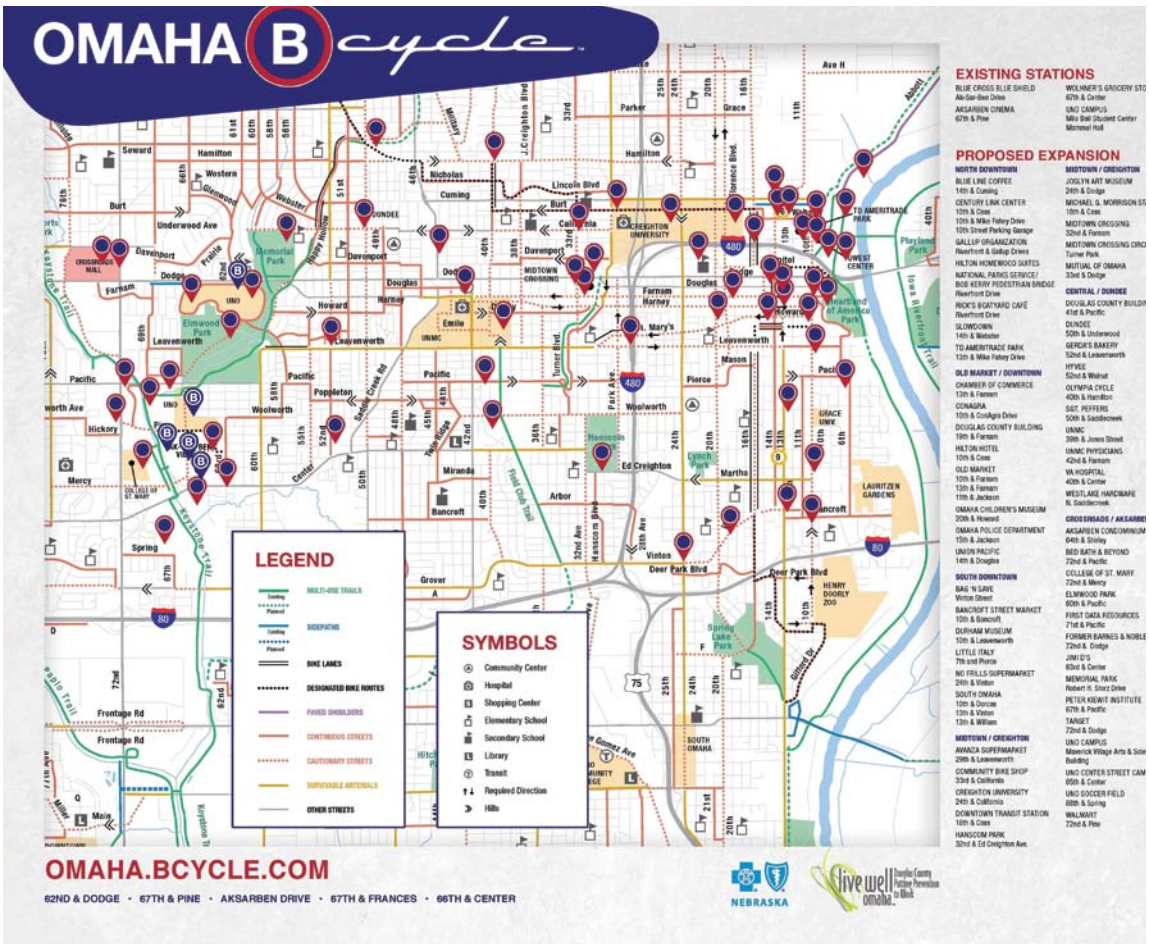
- **Blue Cross and Blue Shield (BCBS) companies are using their resources, including hundreds of employee volunteers, to promote wellness and the prevention of disease through programs tailored to meet the needs of rural, urban, and targeted ethnic and cultural communities.** They have partnered with the First Lady's Partnership for a Healthier America to sponsor 40 new Play Streets — roads closed to traffic and open to the community to encourage physical activity. They also partnered with community organizations to launch Healthy Kids, Healthy Families, focusing on nutrition education, physical activity, managing and preventing disease, and supporting safe environments with the goal of improving the health and wellness of at least one million children over three years across its health plans in Illinois, New Mexico, Oklahoma and Texas. In Iowa, they support the Blue Zones Project, targeting Iowa communities to implement systematic environmental changes that optimize the healthy choices in places where people live, work and play. In North Carolina, they launched Nourishing North Carolina, a statewide community gardening program that makes locally grown, healthy food more accessible to communities across the state.

In Nebraska, they partnered with community organizations to launch Omaha B-cycle, the first large-scale municipal bike sharing system in Omaha. And, they are working to address healthcare disparities in low-income and ethnically diverse communities by funding 12 safety net health care center programs in Maryland, Virginia and D.C. that provide health care services for low-income, medically underserved communities.

- **Kaiser Permanente funds community health initiatives (CHI) that take a preventive approach to health care through targeted grantmaking and convening and partnering with community organizations.** Their CHIs focus on policies and programs that promote healthy eating and active living — HEAL — where people live, work and play. Their approach is to assess a community's health, make investments in their needs, and track outcomes, with a minimum of a seven year to 10 year investment to ensure behavior and health changes.

Opportunities for Prevention Savings in Medicare and Medicaid

	Number of beneficiaries, 2012	Total spending, 2012	Percent of federal budget, 2012	Percent of state budgets, average, 2012	Medical spending linked with obesity, 2008	Medical spending linked with tobacco use, 2004
Medicare	50 million	$591 billion	15%	N/A	8.5% of expenditures	$27.4 billion
Medicaid	56 million	$459 billion (40% is spent on low-income Medicare beneficiaries)	8%	24%	11.8% of expenditures	$30.9 billion (federal share: $17.6 billion state share: $13.3 billion state)



Seattle and King County: Building an Integrated Health, Human Services and Community-based Prevention System

By Janna Wilson, Senior External Relations Officer, Public Health — Seattle & King County

Nationally and in Seattle and King County, health care reform is accelerating the work to better deliver both clinical services and population-based prevention, and there is much talk about the integration of public health and the health care delivery system. As we do this, however, we need to concurrently build out the third leg of this stool—the integration of human services—to more effectively tackle the underlying causes of poor health.

In King County, some 79,000 additional people are expected to enter the Medicaid program in 2014, and another 117,000 people with low and moderate incomes will be eligible for tax credits and cost sharing assistance to encourage coverage under plans sold in the Exchange marketplace, Washington Healthplanfinder. While they are a varied group, their profile includes those who are expected to experience challenging social circumstances such as unemployment, housing problems, abusive relationships, substance abuse, or food instability — circumstances which in turn affect their health.

Today, many of these uninsured low-income adults in King County connect with health and human service systems on an intermittent basis. They engage during times of need and crisis, and then may "drop out" when the issues stabilize — too often only to find that those issues resurface later because the underlying conditions were not addressed. With health care reform, low-income residents are expected to have health care coverage that allows for on-going attachment to a "medical home," replacing what had been intermittent contact with a more stable, on-going connection. We're working to leverage this system change into a platform for providing more efficient, stable connections to human services. As local government — and a major funder of these services — we're in a good position to make a difference.

As part of our pathway to accomplish this, we convened and continue to work with the King County Health Reform Planning Team, a group of representatives from across the health, behavioral health and human services fields, that emerged following the 2011 kick-off dialogue. They work with us to identify tactics that will drive more linkage and coordination between human services and the health care systems.

We recently worked with our King County Executive and the King County Council on successful legislation that calls for the development of "a plan for an accountable and integrated system of health, human services and community-based prevention in King County… in collaboration with the departments of public health and community and human services, and a community stakeholder panel informed by local and national expertise." The plan must include recommendations on investment strategies and financing options, a positive sign that local elected officials are engaged and recognize the larger benefits to our community's well-being that could be realized.

Our efforts extend as well into the depths of the Medicaid program, where we are actively influencing Medicaid transformations being rolled out at the state level. When Washington State began its design of a managed care demonstration to integrate care for people dually eligible for Medicaid and Medicare—our poorest, most vulnerable residents with extensive human service needs and involvement—county human service leaders advocated for a state legislative provision that assured the demonstration could only go forward in a geographic area with county government approved terms and conditions of participation. Because we share responsibility for the well-being of this population, the alignment between the state, the managed care organizations and local entities was important to us.

Seattle and King County CONTINUED

In our County, we've chosen to place ourselves right in the middle of this complex project. Quite simply, for the demonstration project to achieve its goals, local human services expertise and relationships must be involved. In the latter half of 2012, King County's Department of Community and Human Services, Public Health-Seattle & King County, and our Area Agency on Aging worked with state Medicaid program staff to design the terms of our county's participation in the demonstration, with one of the critical provisions being a commitment to work together in an implementation team to share information, monitor impacts and make course corrections.

We are also engaged with state Medicaid program partners and managed care plans in shaping the design and standards for "health home" services, a provision under section 2703 of the Affordable Care Act that provides enhanced federal match levels for care management of Medicaid beneficiaries with chronic health conditions. Linkage to social services and health promotion are among the required services, and we believe it's here at the local level where we can best arrange for a systematic approach to making these connections, and negotiate with the payers who stand to benefit financially from the benefits of those services.

Like many states, Washington is increasingly turning to managed care in the Medicaid program to advance integration as well as better manage costs. As managed care works to serve its growing volume of members with more complex social issues, our health department is already initiating contracts with them in our relevant areas of expertise, such as case management of children with highly complex health issues, and a post-hospital recuperation program for homeless adults.

Through these activities, we are intersecting with the health care system and payers around what's most on their minds today — controlling costs while improving health—to shape their roles in supporting that critical third leg of the stool, a robust and much-needed integration with human services.

Building community and political will for an integrated system of health, human services, and community-based prevention in King County, Washington

In 2011, at a community center in a suburb south of Seattle, over 120 representatives from the region's medical, behavioral health, public health, human services and local government systems kicked off a dialogue about how to use the opportunities of health care reform to build a healthier King County. The gathering was co-convened by Public Health-Seattle & King County and our fellow county agency the Department of Community and Human Services, with the support of the King County Executive.

As the group settled, a manager of an affordable housing agency whispered to organizers, "I'm here but I'm not sure why —what do I have to do with health care reform?" We talked through the many ways that her program supported people's health: first and foremost, they helped people get and stay in housing. They reminded tenants about appointments. They hosted job fairs and healthy cooking classes. And they were going smoke-free. "Your tenants are the health care systems' patients," we explained, "and you are doing far more to impact health and health care costs than you realize. You have ***everything*** *to do with health care reform." She stayed.*

The Blue Cross and Blue Shield Association: Creating a Healthier America, One Community at a Time

Dr. Allan Korn, Senior Vice President and Chief Medical Officer (Ret), Blue Cross and Blue Shield Association

The Blue Cross and Blue Shield System is made up of the Blue Cross and Blue Shield Association (BCBSA) and 38 independent Blue Cross and Blue Shield (BCBS) companies that provide health insurance coverage to more than 100 million people--one in three Americans. For more than eight decades, The Blues® have viewed their responsibility and commitment to the communities that they serve as reaching far beyond insurance coverage.

As community leaders with a presence in every zip code, Blue Cross and Blue Shield companies are positioned to offer an array of programs and services that address both the national and local health concerns of American families. Because Blue Cross and Blue Shield companies are locally operated, they have an ability to create programs that meet each community's specific needs. Yet this nationwide network also enables the Blues to take the best of what works at the local level and replicate or adapt it to work in other communities across the country.

Blue Cross and Blue Shield companies are using their resources, including hundreds of employee volunteers, to promote wellness and the prevention of disease, with many of these programs focused on increasing physical activity and promoting healthier nutrition choices. These activities can help reduce obesity, which leads to heart disease, diabetes and other chronic illnesses that take a terrible toll on patients and their families and lead to higher healthcare costs for everyone.

Programs are tailored to meet the needs of rural and urban communities, as well as the particular needs of diverse ethnic and cultural communities where access to care and prevention information often is lacking. Successful programs are expanded statewide and in some cases, nationwide. They are already showing concrete results:

Individual Cities

In 2011, Blue Cross and Blue Shield of Nebraska partnered with Live Well Omaha, a long-term collaborative partner for improving the overall health of area residents and positioning Omaha as a thriving community, and Community Bike Project Omaha, which works to improve access to bicycles for everyone. Together they launched Omaha B-cycle, the first large-scale municipal bike sharing system in Omaha. The goal of Omaha B-cycle is to provide a cost-effective, environmentally friendly, and healthy way for riders to make quick trips or enjoy the city's riding trails. B-cycle riders also help keep pounds of pollutants out of the air, conserve fuel, and burn calories.

To use B-cycle, participants select a bike, swipe a membership card or credit card, ride the bike and then return it to one of the five stations located throughout the city. Since its start, 850+ members burned an estimated 606,972 calories during an impressive 2,389 trips on B-cycle bikes.

Diverse Racial and Ethnic Communities

Blue Cross and Blue Shield companies are working to address healthcare disparities in low-income and ethnically diverse communities by tailoring approaches for the local communities they serve.

In Western Pennsylvania, Highmark Inc. became the first Blue Cross and Blue Shield company to receive a Distinction in Multicultural Health Care by the National Committee for Quality Assurance (NCQA). The award specifically recognizes Highmark's commercial HMO and Medicare Advantage HMO products offered under the Keystone Health Plan West subsidiary. Clinical interventions targeting minority patients have improved hypertension medication adherence, blood pressure control, colorectal cancer screening rates and diabetes care.

The Blue Cross and Blue Shield Association CONTINUED

Statewide Initiatives

North Carolina

Blue Cross and Blue Shield of North Carolina's Nourishing North Carolina is a statewide community gardening program that makes locally grown, healthy food more accessible to communities across the state. The program, which began in 2011, provides resources to create or enhance community gardens in each of North Carolina's 100 counties. This innovative program involves collaboration between the community, the local public school system, health department and parks and recreation departments. Community residents and elementary school students volunteer weekly to maintain the garden, sharing both in the work and rewards that come from home grown food. Gardens located in food deserts or areas that will be providing fresh produce to underserved/at-risk-populations are given higher consideration over other applicants. A food desert is any area where healthy, affordable food is difficult to obtain.

Last year, Nourishing North Carolina supported 25 community gardens across 19 counties. More than two tons of produce from these gardens was donated to food shelter and rescue organizations. To date, Nourishing North Carolina supports a total of 55 community gardens across 41 counties. In addition, the gardens have also offered hundreds of hours of physical activity to community volunteers. Blue Cross and Blue Shield of North Carolina also established its own community garden, maintained by employees, on its office campus. All of the garden's produce is donated to a local organization that provides food to the needy.

Iowa

Iowa ranks as the 16th healthiest state in the nation and in August 2011, Iowa Governor Terry Branstad issued a statewide challenge to make Iowa the Healthiest State in the nation by 2016 as measured by the Gallup Healthways Well-Being Index®.

Wellmark Blue Cross and Blue Shield of Iowa is playing a major role toward achieving this goal through their support of the Blue Zones Project™. "Blue Zones" is a phrase coined by Dan Buettner, National Geographic author and researcher, and refers to areas in the world where people are not only living longer, but are also living healthier and happier. The research has been used to develop tools and programs that are being applied through a community-by-community movement to improve the well-being of all Iowans. By encouraging systematic environmental change that optimizes the places where we live, work and play, the healthy choice will become the easy choice.

Four Iowa communities — Mason City, Waterloo, Cedar Falls and Spencer — were selected as the initial demonstration sites in May of 2012. Six additional Iowa communities with populations of more than 10,000 will be announced in January 2013, for a total of 10 Blue Zones Project demonstration sites of this size. Additional demonstration sites with populations of less than 10,000 citizens will be selected and the first round of those will be announced in October 2012.

Multi-State Initiatives

Last year, Health Care Service Corporation (HCSC) launched the Healthy Kids, Healthy Families initiative with the goal of improving the health and wellness of at least one million children over three years across its health plans at Blue Cross and Blue Shield of Illinois, Blue Cross and Blue Shield of New Mexico, Blue Cross and Blue Shield of Oklahoma and Blue Cross and Blue Shield of Texas. Healthy Kids, Healthy Families focuses its efforts in four areas: nutrition education, physical activity, managing and preventing disease, and supporting safe environments.

Key 2011 partners included: OrganWise Guys, a school-based program that encourages children to take charge of their health; KaBOOM!, which builds safe, new playgrounds to encourage physical activity; and the Care Van program, which provides preventive care to the uninsured and medically underserved. In 2011, the Healthy Kids, Healthy Families initiative provided funding in 49 schools, helping to improve nutrition education for approximately 24,500 students. It also helped build nine new playgrounds that served more than 23,000 children and provided more than 145,000 immunizations to kids in need.

National Programming

In addition to the Blues'® projects in local communities, BCBSA also has national programming and sponsorships that encourage healthier living for all Americans. For example, BCBSA recently joined with the First Lady's Partnership for a Healthier America (PHA) to sponsor 40 new Play Streets — roads closed to traffic and open to the community to encourage physical activity. Cities and towns across the U.S. are invited to apply for funding that will create at least four Play Streets per locality. Ten cities are to be chosen based on their on-going commitment to increasing physical activity among kids; health education and programming; sustainability of the program concept; and community development. They will receive funds and support from PHA and BCBSA for the events in their city or town.

Cities that already have begun participating have seen an immediate impact. In New York City, 64 percent of the kids using Play Streets reported that, if not for the local Play Street, they would have been engaged in a sedentary activity. Seventy-one percent reported that they walked to their Play Street, an added benefit. The same survey also underscored the promise that Play Streets holds for local economic development: Area businesses reported that foot traffic around the Play Streets increased greatly.

BCBSA is committed to maintaining and expanding these initiatives and others like them to help people live healthier lives. This effort will also help transform our nation's healthcare system from one that focuses on treating chronic, preventable disease at great expense to one that helps prevent illnesses and thus helps to curb costs.

For more information on how BCBSA and the Blue Cross and Blue Shield companies, please visit www.BCBS.com.

Total Health: Public Health and Health Care in Action

By Tyler Norris, vice president, Total Health Partnerships, Kaiser Permanente

The burden of preventable chronic disease is placing significant strain on the physical and fiscal health of our nation. Nothing less than the long term well-being of the country is at stake. It is therefore incumbent on the health care sector to not only deliver the best patient outcomes at the lowest possible cost, but also to reduce demand on the healthcare system overall, and contribute to the health of our population by embracing prevention as a central element of providing value.

In everything we do at Kaiser Permanente, our aim is to measurably improve the health of our members and the communities we serve. As an integrated health care system serving more than nine million members in nine states and the District of Columbia, primary community prevention is a top priority.

The National Committee for Quality Assurance recently published its annual 2012 report ranking health plans in three categories: Medicare, Medicaid and Private (Commercial). For the second year in a row, Kaiser Permanente's three largest regions, totaling nearly seven million members, had the top three Medicare health plans in the nation. Our success demonstrates the dedication of our physicians and care teams working collaboratively to create a better, safer patient experience. But it also reflects our commitment to work with local, state, and national partners to prevent disease, improve population health status, and address the underlying determinants of health and drivers of disparities. We are committed to helping our members, our workforce, their families, and our communities achieve Total Health through the services we provide, and by promoting clinical, educational, environmental, and social actions that improve the health of all people.

Total Health

To accomplish our aim of making lives better, we bring four primary resources to bear:

1. **Clinical Quality:** We have 17,000 physicians. In addition to providing high quality care, our physicians are responsible for making primary prevention in the clinical environment a major component of care. Further, they bring a valuable medical voice to local, state and national initiatives working on priorities such as increasing regular physical activity, and providing access to healthy affordable foods.
2. **Behavior Change:** We work closely with our members and corporate customers to employ strategies that help people eat more nutritious foods, be more physically active, quit tobacco, and use alcohol only in moderation. These are the four primary risk factors that lead to the big-four killers: cardio-vascular disease, diabetes, some cancers, and chronic respiratory disease. These are the primary chronic diseases which are the leading driver of the spiraling demand for, and cost of health care in our nation.
3. **Healthy Environments:** When we talk about environments, we include built, food and beverage environments, as well as social, cultural and natural environments. To support the guidance we provide to patients in the clinical setting, it is vital to help support healthy behavior choices where people live, learn, work, pray and play. We work collaboratively with our community partners to ensure that the healthier choices are the easier choices.
4. **Community Engagement and Grantmaking:** In addition to providing extensive charity care and coverage to low income/high need residents of the communities we serve, we are also investing in over 40 long-term community health initiatives that employ evidence-informed best practices derived from decades of learning. We do this via targeted grantmaking, convening, and partnering with trusted community organizations such as community health centers, schools and after school programs, farmers markets, YMCA's, and faith based programs.

MAZON: Healthy food in hard times

Kaiser Permanente is proud to partner with MAZON: A Jewish Response to Hunger, in Healthy Options, Healthy Meals, *a groundbreaking national initiative to make healthy and nutritious food more accessible for low-income families. Feeding America food banks in the eight Kaiser Permanente regions were invited to participate in this two-and-a-half year initiative, which aims to strengthen their capacity to achieve their healthy food goals, wherever they may be along the healthy eating continuum. Healthy Options, Healthy Meals is designed to be collaborative not prescriptive; together, MAZON and participating food bank partners will co-create a process for change and help shape how the food bank community conducts this type of work. MAZON will provide a framework for approaching this important work, as well as technical resources and a peer-to-peer network. MAZON will also provide individualized support, assisting each food bank in customizing a plan that is tailored to its needs and strategic goals on its path to becoming a stronger change agent and community resource for healthy eating.*

Farmers Market

Each year, more than 30,000 people attend Green Market – a Farmers market held every Saturday from May through October in Piedmont Park, Atlanta, Georgia – which offers a variety of organic fruits, vegetables, fresh cut flowers, baked goods and more. In addition to the marketplace, the event offers healthy cooking demonstrations and fitness classes to encourage everyone to get healthy and stay healthy.

Obesity Prevention and Treatment: *Exercise as a Vital Sign*

There is no equivocating: obesity is driving multiple chronic conditions that are seriously damaging the health status of our nation, while concurrently driving up medical care costs.

Underlying obesity is the epidemic of physical inactivity which places inactive individuals at risk of disease at every weight.

As an integrated delivery system, Kaiser Permanente is applying its full array of resources to prevent our members from becoming obese and/or developing chronic conditions such as type-2 diabetes and hypertension. In the clinical environment, we now we routinely ask patients about their physical activity. We call this Exercise as a Vital Sign. For many years, our doctors have asked patients whether they smoke, and then guided users of tobacco products to the means to quit. Now, we ask how active you are, and then provide an array of means to support recommended physical activity. Physical inactivity, even in people who appear to be fit or skinny, is a significant predictor of long-term chronic disease. If people say they aren't physically active, or get less than the recommended 30 minutes of moderate to vigorous physical activity a day, five days a week our doctors make recommendations, increasingly linking to our community partners, to encourage activity. For example, a pre-diabetic patient might be referred to a YMCA Diabetes Prevention Program or the programmatic offerings of a faith-based partnership or community recreation center.

We have to go beyond saying "you need to walk more, or be more physically active." So, our physicians write walking prescriptions for patients. In turn, we are beginning to connect patients with safe, convenient, affordable community resources that support walking and physical activity.

There is no simpler, more powerful, more enjoyable thing we can do for our health than taking a brisk walk 30 minutes a day, five days a week! The health benefits for body, mind, and spirit are proven and well documented. Walk with your family and friends. Walk the kids to school. Have a walking meeting. Walk the dog!

In short, we may offer the highest quality health care in the nation, but, if our members leave the doctor's office, and go back into their daily lives and community settings where there are inadequate supports to healthier lifestyles — we miss the opportunity to optimize our individual and collective health potential. At a time when health care costs are rising we all need to do what we can to improve prevention and keep people out of the care delivery system to start with.

Going Into Our Communities

Many health-related organizations and foundations provide funding for community efforts. We're a bit different in our grantmaking and community partnership work — as we are not a philanthropy, rather a not for profit integrated health system, with a long-term stake in the communities we serve and the health of the nation. We regularly engage in community benefit activity by assessing community health needs, making investments in priority areas, and tracking outcomes over time. Our employees and members are with us for the long term, and our facilities and investments are rooted in place. In short, we're not going anywhere. So we don't simply make short-term grants and then move on. As a nonprofit mission-driven organization, we invest in our communities over the long term, to encourage and support changes that go beyond what we can do in our clinical settings alone.

Food Oasis in Oregon

The Village Gardens project unites three neighborhoods — St. John's Woods, New Columbia, and Tamarack — with people working together to create an oasis of food security. Community gardens are staffed and tended to by nearly 100 families representing 18 different nationalities. Future goals are to serve the 10,000 people living within a half-mile radius, and to be a model that others can use to create a healthier, more sustainable force in their community. Kaiser Permanente is one of several key partners working collaboratively to fund and support the vision of the Village Gardens community.

Consequently, when engaging in community partnerships, we typically engage for a minimum of seven to ten years. To affect measurable population level behavior and health changes, you can't make a grant, and then expect lasting change in just two to three years. We take a longer view, focusing on community assets and environments, and help build the long-term capacity of community partners. The latter is vital so that communities build the collective efficacy that is requisite to effecting measurable impact, at scale, with sufficient reach and intensity, over time. The stronger community bonds and assets we help forge, the better our clinical offerings can integrate with community supports in a way that assures total health and well-being.

We also practice what we preach and apply the "power of the white coat." Our physicians often volunteer with community partnerships. Over the years, they have stepped up to educate on the health benefits of Safe Routes to School, Complete Streets, and the importance of neighborhood safety and affordable access to healthy foods.

Every Body Walk!

Walking is central to everything we do at Kaiser Permanente. Every Body Walk!, a national public health campaign, powered by Kaiser Permanente, aims to get adult Americans walking 30 minutes a day, five days a week (60 minutes for children). The online walking hub at everybodywalk.org contains all that's needed to begin a walking routine — maps, tips, medical advice, partner resources, inspiring videos, and a free mobile application.

We know that walking can cut the rate of diabetes and heart disease and even Alzheimer's. It's fun, easy and free and has amazing health benefits. That's why our doctors are advocating the benefits of walking and getting out to walk with their patients.

Community Health Initiatives

Our Community Health Initiatives take a preventive approach to health care, focusing on policies and programs that promote healthy eating and active living where we live, learn, work, and play. Community health improves in an environment that promotes health and well-being and the creation of that environment is accomplished through providing the best medicine combined with education and vital public health activities that support an informed and empowered population.

Educational Theatre

Kaiser Permanente created Educational Theatre Programs (ETPs) to inspire children, teens and adults to make informed decisions about their health, to build stronger, healthier neighborhoods, and to improve public health by using the arts, creative education and youth advocacy.

Our ETPs are presented free of charge to schools and community organizations and performed in school and community settings. Over the past 25 years, the Program has reached 15 million children.

Kaiser Permanente's ETPs use live theatre, music, comedy, and drama to inspire children, teens, and adults to make healthier choices and better decisions about their well-being. ETP's live, interactive performances enable students to identify and emotionally engage with characters onstage, as well as learn information in a dynamic way. ETP productions are offered free of charge to eligible schools and community groups.

National Partnerships:

Nationally, Kaiser Permanente engages in a wide array of partnerships including:

- The Convergence Partnership supports healthy policy change at all levels, promoting and supporting partnerships among organizations and entities in multiple fields. www.convergencepartnership.org
- The Weight of the Nation™ documentary series and public health campaign presents a unique opportunity to spotlight the severity of the obesity epidemic, to showcase strategies that work and, most importantly, to catalyze action to end obesity. http://theweightofthenation.hbo.com/ and www.kp.org/weightofthenation
- The Community Commons is an interactive GIS mapping, networking, and learning utility for the healthy, sustainable, and livable communities' movement. www.communitycommons.org
- CHNA.org is a free web-based platform designed to assist critical access hospitals, non-profit organizations, state and local health departments, financial institutions, and other organizations seeking to better understand the needs and assets of their communities — to make measurable improvements in community health and well-being.www.chna.org

Everywhere Kaiser Permanente operates, our mission remains the same: to provide high-quality affordable health care and to improve the health of our members and the communities we serve. This means making the communities safer, healthier places to live, learn, work and play. We do this via:

- Providing access to affordable high quality care and coverage;
- Helping public hospitals and community clinics improve the care they deliver and expand their treatment capacity;
- Supporting research, education and training;
- Promoting health through better diet, physical activity, and vibrant neighborhoods; and
- Leveraging the power of the white coat to promote prevention and ensure people who want to can get and remain healthy.

A nations' health is it also its wealth. To assure a strong 3rd American Century, it is incumbent on providers, payers, purchasers, employers, labor, government agencies, community organizations and residents of all types to do their part. Health is not simply a private good — it is a strategic asset for the well-being and security of our nation. With wise private and public sector investments in prevention and public health, we can concurrently improve our nation's health, while lowering the preventable demand-driven costs of care over time. This is good for people, good for our communities, and good for our nation.

Live Well Colorado

Back in 2005, Kaiser Permanente Colorado introduced our Thriving Communities initiative. This effort sought to mobilize and partner with Colorado communities to develop programs, environmental strategies, and policies that will work best in their respective neighborhoods to promote healthy eating and active living. Eleven community organizations were provided funding and resources through the Thriving Communities initiative to collaborate with local health organizations, businesses, neighborhood associations, faith-based organizations, local government, and parks and recreation departments in assessing needs and developing plans towards reaching their goals. Each of the 11 communities developed unique programs aimed at improving healthy eating and increasing active living. The activities ranged from teaching nutrition through growing and maintaining gardens to improving local roads and infrastructure for better walking accessibility. Kaiser Permanente Colorado continued to develop partnerships to support the Thriving Communities initiative, including working with the Colorado Department of Public Health and Environment, The Colorado Health Foundation, Governor Bill Ritter, and Lt. Gov. Barbara O'Brien. Through these partnerships, Thriving Communities evolved into the statewide initiative now called LiveWell Colorado.

Today, LiveWell Colorado *provides support to 17 community organizations serving about 750,000 people in 11 Colorado counties (Adams, Alamosa, Broomfield, Denver, Eagle, El Paso, Jefferson, La Plata, Larimer, Prowers, and Summit). Its goal: to initiate policy, environmental, and lifestyle changes that remove barriers and encourage healthy behaviors among all Coloradans.*

Kaiser Permanente at a Glance:

- 9 million members
- 9 states and the District of Columbia served
- 17,000 physicians
- 35 million office visits
- 170,000 employees
- $1.8 billion in community investment in 2011

2. PARTNER WITH HEALTH CARE PROVIDERS

Health care reform provides a new opportunity for making prevention a higher priority in order to improve health and contain costs. If health care providers integrate prevention strategies into their health care system models and regular activities, we can move from a sick care to a health care system. Health care providers should look at creating new models with a focus on prevention and incorporating prevention into their previously mandated activities.

a. Incorporate Prevention and Public Health in a Reforming Health Care System

Current Status:

Traditionally, medical care services and public health programs have operated separately. As health care providers are reforming the way they do business, following implementation of the ACA, they are looking at new approaches to coordinate public health and medical care. For example, public and private health systems around the country are developing new models that move away from disjointed fee-for-service care and are instead focusing on improving health outcomes and containing costs.

One new approach to providing health care is through the use of ACOs.[38, 39] ACOs are groups of health care providers that prioritize coordinated care and quality goals to help achieve improved overall health for their patients while reducing health care costs. Under ACOs, health care providers meet certain standards of care, and can share in any savings that result from improved care and cost reduction. Many private ACOs have emerged around the country over the past several years.

Another model that a number of public and private health care providers are exploring is "global payments" or "global budgets," which set a fixed fee for a system's health care spending, based on a flat fee for each patient in a given insurance pool. Providers are then held accountable for the management of the total cost of care for their patient population. Many experts believe that an approach combining global payments with incentives to improve quality of care can lead to better value in terms of health and cost outcomes.[40] Global budgets incentivize cost containment and may improve the overall health of the community served, and, like ACOs, shift away from disjointed fee-for-service care.

Why Prioritizing Prevention and Public Health in Reforming Health Care Models Matters:

- Disjointed fee-for-service approaches and siloed systems have dis-incentivized coordinated care, and have been ineffective at reducing disease rates, improving health outcomes or controlling costs. New approaches, such as ACOs and global payment models, focus on improving the overall health of an insurance pool and offer strong incentives to providers to deliver the most effective care strategies possible, and to maximize effectiveness, they can take an integrated approach to include community-based prevention and public health to provide support for patients to be able to follow doctor's advice in their daily lives.
- Investing in prevention offers stronger potential for returns for reformed systems using health outcomes and cost savings as measures. For instance, under a global budget system, the overall health of a community directly impacts the bottom line of that system. Incentivizing payment for evidence-based prevention programs can reduce rates of disease, prevent the development of complications from diseases and reduce the number of a patient's doctors' visits.

Recommendations:

New health system approaches, including ACOs and global health budgeting, must incorporate community prevention and public health to be successful in reaching goals to improve health and lower costs. As health systems are developing reforms, they should be encouraged to incorporate community-based prevention and public health into their systems. Investing in prevention as part of these overall models can help providers more easily and effectively reach their goals of healthier communities and lower health care costs. Incentives and mandates should be explored to encourage this integration, including developing models for sharing savings achieved through prevention. Integrating prevention and public health with the larger health care system can be implemented in a variety of ways, including through coordination with health care providers and existing public health programs and departments.

ACOs should expand to an Accountable Care Community (ACC) model. The creation of ACOs has inspired a new model, ACCs, which expands on the idea of the ACO to coordinate care inside and outside the doctor's office.

ACCs work across a range of sectors, including employers, housing, transportation, education and Chambers of Commerce, and work together with health care providers and public health officials to find ways to improve health while also achieving other critical goals. ACCs are based on the recognition that different sectors interact with public health. For example, being healthy is important to being productive at work; stable and safe housing impacts community members' health; and a quality education helps improve health and economic prospects. As with the ACOs, a comprehensive approach works to improve the overall health of individuals and can result in health care savings. The range of organizations involved can then benefit from these shared cost savings, and everyone benefits by having a healthy and more productive community. ACC models leverage the resources and capabilities of all of the partners and share the cost savings achieved by lower health care costs.

If global budgets are adopted, they should invest in community-based prevention programs. States and organizations with global budgets have a strong incentive to identify and invest in strategies to improve the health of the community they serve. To be as strategic as possible, global budgets should include investments in community-based prevention. Including community prevention directly in global health models can help improve health and bring down overall costs, which, in turn, would provide more resources to reinvest in the health care system.

HOW IT'S WORKING:

- **The Accountable Care Community in Akron, Ohio — a Community Transformation Grant (CTG) recipient — reduced the average cost per month of care for individuals with type 2 diabetes by more than 10 percent per month over 18 months with an estimated program savings of $3,185 per person per year. This initiative led to a decrease in diabetes-related emergency department visits (from nine to six visits for people in the higher glycated hemoglobin ranges, and from six to three visits for people in the lower glycated hemoglobin ranges).** In 2011, the nonprofit organization Austen BioInnovation Institute (ABIA) in Akron brought together a wide range of 70 different groups to launch the first-of-its-kind ACC to coordinate health care inside and outside of the doctor's office for patients with type 2 diabetes. The initiative received a CTG from CDC of $500,000 per year for five years for capacity building.

- **The Vermont Medicaid Global Budget is one example of a program that is making "upstream" investments in prevention.** By providing increased support for community-based prevention programs to improve overall health of the community, global health budgets can improve the health of their entire insurance pool. For instance, providing increased access to healthy foods and safe places to exercise gives everyone in the community the ability to more easily make healthy choices in their daily lives. These programs benefit everyone in the community and provide much needed support to people who are managing chronic conditions, such as by providing diabetics with support for their on-going self-care, including opportunities for physical activity and good nutrition. This can pay dividends in reduced need for higher cost clinical care and emergency room visits and can limit the escalation of disease complications. Also, providing pre-diabetics access to evidence-based community programs can keep patients from developing full blown diabetes and keep their health care costs down.

AKRON, OHIO — THE FIRST ACCOUNTABLE CARE COMMUNITY IN ACTION[41]

Looking for ways to improve the vitality — particularly the economic vitality — of the community, leaders in Akron, Ohio identified health issues — particularly high rates of chronic disease and related health care costs — as a major concern.

The nonprofit ABIA brought together a wide range of 70 different groups to launch the first-of-its-kind Accountable Care Community in 2011.

The ACC is focused on improving the health of the community and incentivizing the health care system to reward improved health while delivering cost effective care. Success is measured by factors including the improved health of the whole community, cost effectiveness and cost savings in the health care system, improved patient experience for those using the health care system and job creation in Akron.

The effort began by zeroing in one of the most widespread, high cost preventable health problems in their community: type 2 diabetes.

Approximately 11 percent of adults in Akron have diabetes, and 2.1 percent more are considered pre-diabetic and are at risk for developing full blown diabetes.[42] If current trends continue, one-third of the Akron population could have diabetes by 2050. Of the individuals with type 2 diabetes involved in Akron's ACC, around 38 percent have private health insurance, 31 percent have public health insurance (Medicare or Medicaid) and 31 percent have no health insurance. People with diabetes have 2.3 times higher average medical costs per year than non-diabetics.[43]

Effective approaches to prevent and control diabetes require a comprehensive approach.

Strong, regular medical care, including coverage for care, is important. But, daily self-management is also essential for individuals with diabetes. And, maintaining a healthy diet and levels of physical activity are also necessary to help those with diabetes improve their health and prevent others from developing diabetes in the first place.

There is recognition that health care must focus on improving the overall health of individuals, which requires thinking about their direct care but also how to coordinate maintaining health outside the doctor's office. Managing health in daily life requires having information about nutrition and activity and proper self-management education for those who are living with health conditions. In addition, it is important to make healthy choices easier in people's daily lives. This includes easier access to affordable healthy food, safe and convenient places for physical activity, mental and emotional support, and encouragement and incentives from employers, family, community- and faith-organizations and others.

The ACC built a collaboration to leverage the resources and ideas of a wide range of organizations, including the major hospitals and health care providers, employers, the Chamber of Commerce, universities, housing groups, transportation groups, economic developers and planners, a range of faith-based organizations and many others. Some of the activities and initiatives, in addition to those directly related to education and care for disease, have included community gardens, fresh food preparation, fit-minute exercise, among others.

Akron has worked on the following initiatives: (1) expansion of the concept of "public lands for public health" with the Cuyahoga Valley National Park — including extending public transportation such as bus lines to make the park more accessible to more members of the community; (2) a regional health impact assessment of the Akron Marathon; (3) partnerships with the faith-based community for health education and screening for individuals who are underserved including refugees and Native-Americans; and (4) work with the Akron Metropolitan Transportation System to better understand how to design or redesign systems transportation and the built environment to provide increased opportunities access safe places for physical activity and healthy, affordable food options.

The initiative also received a CTG from CDC to help support their activities. CTGs are awarded to communities that are taking integrated, evidence-based approaches to preventing disease. ABIA received a $500,000 per year for five years capacity-building grant in 2011.[44]

The three major community health systems, the Akron Children's Health System, Akron General Health System, and Summa Health System and many private provider groups in Akron participate in the ACC. Combined, around 80 percent of all of the county's population are represented through participating hospitals, providers and social service agencies. The initiative recognizes that knowledge and information management is essential to understanding and analyzing health and cost patterns. They have developed systems for confidential sharing of patient data using an integrated data platform, which allows for the consistent and com-

parable analysis of data to be able to track health trends and cost savings. Participating hospitals and providers receive a share of the health care cost savings achieved by the program, and other funds are reinvested in the ACC or other community efforts.

In just 18 months, the initiative is already seeing positive results:[45]

- **The average cost per month of care for individuals with diabetes was reduced by more than 10 percent per month; and**
- **After one year of involvement, consistent reductions in costs are in excess of 25 percent.**

Other key highlight outcomes include:[46]

- Estimate program savings of $3,185 per person per year;
- More than half of participants lost weight (115 pounds), decreased decreased body mass index (BMI) (almost 23 points), and reduced waist size (more than 25 inches);
- Lowered cost per person per contact hour with health care providers ($25 vs. $37.50 for other leading diabetes prevention programs);
- Better management leading to decrease in glycated hemoglobin (A1C) (a measure of diabetes) and LCL cholesterol (often known as "bad" cholesterol) levels;
- No amputations because of diabetes;
- Decline in emergency department visits because of diabetes: a drop from nine to six emergency room visits for people in the higher glycated hemoglobin ranges (HbA1c>8%); and a drop from six to three visits for people in the lower glycated hemoglobin ranges (HbA1c<8%); and
- Increase in reported exercise and flexibility.

The ACC has been successful in improving quality of care, lowering the cost of treatment, delaying the progression of disease, expanding the population receiving comprehensive care, reducing the overall burden of disease in the community, and increasing productivity. The initiative is planning to expand to focus on additional health problems, such as asthma.

Akron is a healthier place with lower health care costs because of the ACC, and it is more attractive to businesses and other groups because of its more vibrant and productive workforce.

ABIA developed the ACC model so it could be replicated in other communities around the country, and has had more than 200 requests for more information or consultation from other communities.

AUSTEN BIOINNOVATION INSTITUTE IN AKRON

ABIA is a unique biomedical innovation institute, founded in 2008 by Akron Children's Hospital, Akron General Health System, Northeast Ohio Medical University, Summa Health System, The University of Akron and the John S. and James L. Knight Foundation. The City of Akron and the County of Summit are key participants in the initiative.

"As we think about the Accountable Care Community, we have the opportunity to impact quality of life, and also the economic vitality of our community, not only for us but also serving as a national model and transporting to other parts of the United States."

– Janine E. Janosky, Ph.D., vice president, head, Center for Community Health Improvement, ABIA

AKRON — SOME VITAL STATISTICS FROM COUNTY HEALTH RANKINGS AND ROADMAPS (2012) FROM RWJF AND THE UNIVERSITY OF WISCONSIN POPULATION HEALTH INSTITUTE[47]

Health Facts

- 11 percent of adults have diabetes
- 30.4 percent of adults are obese and an additional 37.3 percent are overweight*
- 21 percent of adults smoke

Health Care Facts

- 14 percent of adults have not had health care insurance
- $9,749 average health care costs per adult per year

Community Facts

- 540,000 approximate Summit County, Ohio (Akron) population
- 24.8 percent of adults are physically inactive
- 77.7 percent consume less than the recommended five servings of fruits and vegetables a day*
- 57 percent of restaurants in the county are fast food restaurants
- 86 percent of working adults commute alone to their jobs
- 19 percent of adults have inadequate social support

Economic Facts

- 9.9 percent of adults are unemployed
- 22 percent of children live in poverty
- $45,768 is the median household income
- 34 percent of residents pay 30 percent of more of their income on housing

**Source: ABIA White Paper*[48]

Transforming Health by Developing an Accountable Care Community

By Janine Janosky, Vice President, Head, Center for Community Health Improvement, Austen BioInnovation Institute in Akron

The Austen BioInnovation Institute in Akron (ABIA) is a collaboration of Akron Children's Hospital, Akron General Health System, Northeastern Ohio Medical University, Summa Health System, The University of Akron and The John S. and James L. Knight Foundation. Not surprisingly, this partnership mirrors the Akron and Summit county communities, as healthcare and education are the region's largest economic sectors.

Our region is also home to a vital community, with an extensive park system that includes biking, hiking and running trails, cross-country skiing, lakes and much more.

However, in the Akron Metropolitan Statistical Area (MSA), which encompasses Summit County, 10.8 percent of the population has been diagnosed with diabetes, with an additional 2.1 percent reporting pre-diabetes or borderline diabetes as a diagnosis. This compares to a rate of 10.1 percent for the state of Ohio and 8.3 percent for the United States.

With regard to diabetes-related risk factors in the Akron MSA, 24.8 percent of the population reports no physical activity in the past month; and 77.7 percent of adults consume less than the recommended five servings of fruits and vegetables per day. In addition, 37.3 percent of adults are overweight, and 30.4 percent are obese.

Clearly, The Akron MSA represents an at-risk community that would benefit from health interventions.

In response to the region's and nation's need for a collaborative and shared approach to community health, about 18 months ago, ABIA's Center for Community Health Improvement began the effort to usher in a new health culture in the Akron region by developing an Accountable Care Community (ACC), a new health model which aims to foster collaborations borne of shared responsibility among various sectors to transform health in Northeast Ohio.

The ACC is a collaborative, integrated, and measurable strategy that focuses on health promotion and disease prevention, access to quality services, and healthcare delivery. As such, the ACC is not dependent upon healthcare systems adopting specific public or private payer initiatives. Rather, it builds on initiatives to encompass not only the area's medical care providers, but also the public health system and community stakeholders whose work, taken together, spans the spectrum of the determinants of health. In addition, the ACC focuses on health outcomes of the entire population of a defined geographic region, i.e., Summit County, OH instead of silos of populations of health consumers selected by a health insurance entity or provider participant.

Other communities around the U.S have implemented smaller initiatives around community-based approach to care with promising results. Some examples include the Sagadahoc (Maine) Health Improvement Project, the Community Care of North Carolina Program and the Aligning Forces for Quality (AF4Q). These examples of integrated, community-based health improvement efforts have both informed and accelerated the ACC initiative to impact.

When we developed the ACC, it was important to fundamentally change health and health care delivery from silos to a more integrated and coordinated system that utilizes existing resources in the community, for example: concepts such as patient-centered medical home, care coordination, shared accountability, collective impact, and value-based payment.

Specifically, the ACC model is structured around the following components:

(1) Development of integrated medical and public health models that deliver clinical care in tandem with health promotion and disease prevention efforts;

(2) Utilization of interprofessional teams including, but not limited to, medicine, pharmacy, public health, nursing, social work, mental health, and nutrition to align care management and improve patient access and care coordination;

(3) Collaboration among health systems and public health, to enhance communication and planning efforts;

(4) Development of a robust health information technology infrastructure, to enable access to comprehensive, timely patient health information that facilitates the delivery of appropriate care and execution of effective care transitions across the continuum of providers;

(5) Implementation of an integrated and fully mineable surveillance and data warehouse functionality, to monitor and report systematically and longitudinally on the health status of the community, measuring change over time and assessing the impact of various intervention strategies;

(6) Development of a dissemination infrastructure to rapidly share best practices;

(7) Design and execution of a robust ACC implementation platform and impact measurement tool; and

(8) Policy analysis and advocacy to facilitate ACC success and sustainability.

Significant progress has been made within the initial 18 months of designing, developing, and implementing the ACC. After analyzing and evaluating the needs to improve population health, we identified diabetes as the initial priority. We focused on the spectrum of health promotion and diabetes prevention, diabetes self-management, secondary and tertiary prevention of diabetes complications, and the care and services of individuals currently living with diabetes.

ABIA was positioned as the hub for the development and execution of the ACC including series of targeted, multi-party interventions.

The first project encompassed a cohort of individuals with diabetes who were linked to care and services within the ACC. Available to each of the individuals, based upon their needs, was augmented medical care, programs and initiatives for self-management, and secondary and tertiary prevention. These included diverse interventions such as education for self-care, nutrition, physical activity, mindfulness for social and emotional wellness, among many others.

After we linked these individuals with community resources, we found beneficial health outcomes and cost of care outcomes, showing improvements in biometrics e.g., reduction in weight and/or waist measurement, decline in blood sugar and increase in self-reported fitness levels. In addition, we have found an approximate 10 percent cost savings in the utilization of care for these individuals.

The second project focused on a diabetes self-management program that was an educational and experiential program in a small group setting with participants drawn from diverse practice sites.

For this cohort, studied microscopically, over a six month period, we found that those individuals born before 1965 (baby boomers and older) were the most successful at decreasing their BMI, and lost an average of 2.166 points of BMI. For all individuals, overall, they showed a decrease in their Hemoglobin A1c (HbA1c) percentage by approximately 0.45, with no differences by age, generation, race, and limitations. This decrease showed their diabetes is better controlled and also led to an estimated savings of $3,185 per person, per year in medical costs. In addition, from the decrease in body weight, medical care costs, and losses from work, the cost of absenteeism decreased by $580 per person, year.

As a group, the number of emergency department visits was also lower during this period when compared to the six months prior. We have compared our findings to national findings, and the cost of our programs and our improved health and cost savings are well ahead of the norm. The analysis not only demonstrated the biometric successes of the program, but also reduced costs and improved overall individual community health. These data show that through an ACC positive outcomes along the Triple Aim (improving the individual experience of care, improving the health of populations, and reducing per capita costs of care for populations, according to Health Affairs) can be achieved.

As we move forward, with the support of the ABIA partners and an expanding network of community stakeholders, the ACC will enable Akron and Summit County, Ohio to become a guiding force for better health across all portions of our society.

In February, 2012, we released an ACC White Paper (available at http://www.abiakron.org/Data/Sites/1/pdf/accwhitepaper12012v5final.pdf), which has received more than 50,000 hits to the website, with over 15,000 downloads, and approximately 200 direct contacts. These direct contacts are inquires referencing working with health systems, universities, public health entities, local governments, and so forth to develop and implement an ACC in their communities. Quite simply, our ACC model of shared responsibility can be implemented and adapted for other communities throughout the nation.

INNOVATIVE MODELS FOR PUBLIC HEALTH: EXAMPLES OF GLOBAL BUDGETS IN ACTION

Blue Cross Blue Shield of Massachusetts Global Payment Plan

In 2009, BCBS of Massachusetts began a modified global payment plan, establishing a fixed cost for the care of patients during a specified time frame and included bonus incentives for achieving quality goals. According to a 2012 study in Health Affairs, health spending for patients covered by this program was 1.9 percent lower in the first year and 3.3 percent lower in the second year than for patients covered via fee-for-service programs, and the 4,800 doctors in the global payment program also scored higher on measures of quality care.[49] The study found many doctors took cost-cutting steps such as switching to less-expensive lab companies or extending their office hours to cut down on their patients' emergency room needs.

In August 2012, Massachusetts passed a law aimed at controlling health care costs, which included replacing traditional fee-for-service payments for providers with alternative models, such as global budgeting.[50] Some policymakers in the state project the law could lead to $200 billion in health care savings over the next 15 years.

The global payment approach is bolstered by community-focused prevention and public health programs, which supported the BCBS beneficiaries and other Massachusetts residents. In 2012, the state was also the first in the nation to pass its own Prevention Fund to help reduce obesity, tobacco use and other high-impact health problems in the state.

Oregon Medicaid Global Budget Approved 2012

In 2012, Oregon received a waiver from CMS for a risk-adjusted global budget for the state's Medicaid program as part of instituting Coordinated Care Organizations (CCOs) throughout the state.[53] Their approach is grounded in the idea that "better health = lower costs."[54]

Currently, 16 percent of Oregonians receive support from Medicaid and/or the CHIP services and 11 percent of the state's overall budget goes toward Medicaid/CHIP.

The new approach will focus on coordinated care, including increased recognition of the need to support health improvement both inside and outside the doctor's office. The global resources will help allow for increased support for proven community prevention efforts to help improve the overall health of the community, which in turn helps bring down overall costs.

Recent Advances in Global Budgeting

Some recent advances have made global budgets easier to implement than they have been in the past for small, medium-sized and large provider networks, including:

- Electronic health records help give providers increased, accessible information about their patients to deliver better coordinated care and track the population health outcomes of their patients and their communities;
- Integrated management systems give providers increased information about the range of potential services and programs that can help their patients, including how to connect them with services and programs that can provide support to manage their health concerns in their daily lives;
- Integrated billing systems help with the administration of global budgets and linking payment to care; and
- Risk adjustment strategies have been developed so the health status of the patient pool is factored into the payment levels, which mitigates against denying coverage or exclusion of less healthy patients.

Improving the health of the community — or insurance pool — is one key to the success of global health budgets.

Vermont Global Budget

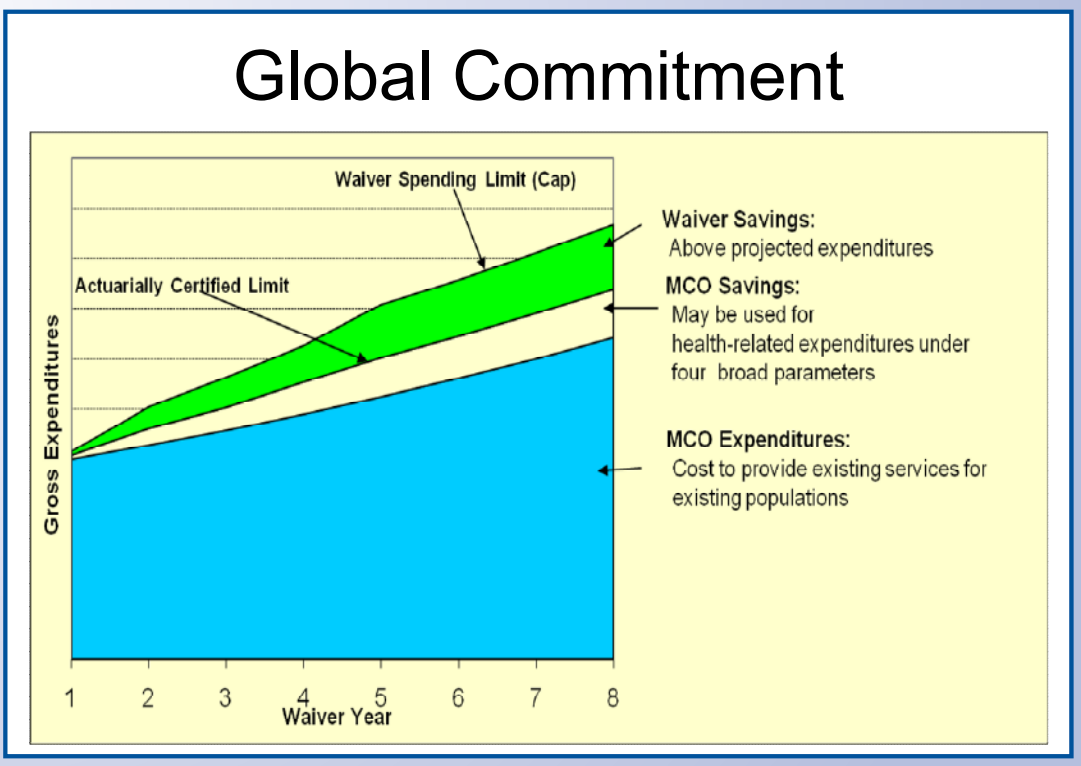
In FY 2006, Vermont began a five-year "Global Commitment to Health" demonstration agreement (which has been extended until the end of 2013) with the federal government to test the impact of a federal funding cap on Medicaid spending to give the state increased flexibility to manage Medicaid health services.[51] The state pursued this approach to help improve cost containment and expand coverage to the uninsured — approximately one in four Vermonters receives some form of Medicaid assistance. Vermont has been receiving monthly payments to cover the needs of all Medicaid beneficiaries.

The state has a longer-term goal of having a set global health budget for all Vermonters, including those covered by public and private insurance. Currently, Green Mountain Care serves as a hub for low- or no-cost insurance options in the state.

Independent actuaries determined the global budget pool for the state, and if the state was able to control spending under the agreed upon cap, it could keep the difference, but if it exceeded the agreed upon cap, the state would absorb the difference.

The state was able to keep spending significantly below the agreed upon amount, and also invested some of these funds to help improve the health of the population, which in turn helps limit their health care needs, further reducing costs.[52]

The Global Commitment to Health program has helped provide support for public health approaches to improve the health status and quality of life beyond the doctor's office. Some programs of community investments include: school health services, a strategic blueprint for health in the state, Vermont Information Technology Leaders (VITL), tobacco cessation program support, community mental health services, non-traditional programs like respite services, and increases support for the Women, Infant, & Children (WIC) program.



b. PARTNER WITH NONPROFIT HOSPITALS TO MAXIMIZE COMMUNITY BENEFIT PROGRAMS' IMPACT ON PREVENTION

Current Status:

In order for a nonprofit hospital to be exempt from federal income tax, they are required to provide community benefit. This is currently interpreted to mean providing community benefit programs — to support the health and public good of the community they serve. As of a review in 2009, a majority of community benefit funds were used to help pay for care for the uninsured or underinsured — supporting charity care, uncompensated care, means-tested payer discounted care and Medicare shortfalls represented approximately 72 percent of hospitals' community benefit activities, while community health improvement and community building activities only represented approximately five percent of community benefit activities.[55]

More than half of the hospitals in the United States — 2,900 — operate as nonprofits, and the value of their combined tax exemption is estimated to be as high as $21 billion annually.[56] Nonprofit hospitals were estimated to receive a yearly total of $12.6 billion in tax benefits at the federal, state and local levels in 2002, which would be $16.2 billion in 2012 dollars.[57]

Since the passage of the ACA, every nonprofit hospital is now required to report that, either during the tax year beginning after March 23, 2012 or during one of the two immediately preceding tax years, it has conducted a community health needs assessment (CHNA) and adopted an implementation strategy to address the identified needs of the community it serves. Guidance issued by the Internal Revenue Service (IRS) in 2011 addresses these new requirements.[58]

Assessment: Every hospital must conduct or access a CHNA on a triennial basis, designed to help hospitals understand the needs of the community it serves. The CHNA report must include 1) a definition of the community the hospital serves; 2) a description of the needs identified and the process for prioritizing needs; 3) a description of the existing health care facilities and other resources within the community available to meet the community health needs identified through the CHNA; 4) a description of the process, methods, sources and dates of the data used to conduct the assessment; and 5) a description of the consultation process and a list of community organizations and members and experts consulted, including public health experts, to conduct the assessment. Hospitals may base their CHNAs on information collected by other organizations, such as government agencies or not-for-profit groups, and may conduct CHNAs in collaboration with others.

Each hospital is required to adopt an implementation strategy — a written plan that addresses each of the community health needs identified in the CHNA. The plan should identify the needs the hospital plans to address and those it does not along with the reason why. The strategy should also describe any collaborative efforts the hospital participates in to address certain needs. Hospitals must attach a copy of the most recently adopted implementation strategy to its IRS Form 990.

Transparency: The CHNA must be made "widely available to the public" and the U.S. Secretary of the Treasury is directed to undertake a triennial review of the community benefit activities of each hospital receiving tax-exempt status.

The instructions for the 2011 IRS Form 990, Schedule H expanded the kinds of activities hospitals can participate in to satisfy their community benefit requirement — including community building activities, such as programs that support physical activity and nutrition programs in communities, as long as they meet all of the criteria of community health improvement programs.[59]

Why the New Community Benefit Requirements Matter:

- The new requirements provide an opportunity for nonprofit hospitals across the country to re-evaluate and reconsider their current approach to community benefit programming, and assess how increased attention to community health improvement and prevention can help improve the health of their patients and lower health care costs. The requirements:
  - Provide new opportunities for nonprofit hospitals to partner with state and local health departments, local employers and businesses and community groups to increase their understanding of the needs of the community;
  - Encourage the development and implementation of effective, coordinated and non-redundant initiatives to improve community health; and
  - Foster policy and system changes that can help coordinate the activities of the broader health care delivery system and create healthier places for Americans to live and work.

Recommendations:

▲ **The IRS should take steps to ensure that nonprofit hospitals maximize the advantages of the community benefit requirement.**

Expand the scope of hospitals' use of community benefit dollars: The IRS should make clear to hospitals that any evidence-based activities that fall within the four strategic directions of the National Prevention Strategy — 1) clinical and community preventive services; 2) healthy and safe community environments; 3) empowered people; and 4) elimination of health disparities — will give the hospital community benefit credit.

Encourage hospitals to participate in multisector collaboration throughout the process: For instance, hospitals can collaborate with other hospital organizations within their geographic region, public health agencies, community-based health care and social service organizations, private businesses, philanthropy and other government agencies and programs when developing and executing their CHNA implementation strategies.

Ensure transparency of hospitals' community benefit activities: Just as their assessment plans are required to be made more transparent, hospitals' implementation strategies should be made "widely available." Similar requirements should be implemented, including requiring them to be included on the hospitals' website and subjecting them to strict transparency requirements, including being able to be viewed, downloaded, printed and accessible without a fee.

▲ **Nonprofit hospitals should use the new rules to evaluate and re-assess how they spend their community benefit resources.**

Hospitals should direct community benefit funds to evidence-based community prevention programs to improve health and lower costs: Nonprofit hospitals should increase their support for programs outside of the hospital that target the specific health needs of their communities, particularly high-impact, high-cost problems such as those that lead to high rates of emergency room and readmission visits. Funding community prevention programs outside of the hospital will lead to a healthier population and, therefore, fewer people being admitted to the hospital for uncompensated care, lowering long-term health care costs.

Hospitals can strengthen their commitment to, and the public's awareness of, their mission: As hospitals are required to make information about their community benefit efforts publicly available, they should ensure that they are providing programs that will be recognized by their communities, their employees and their families as supporting the hospital's mission.

HOW IT'S WORKING:

■ **Boston Children's Community Asthma Initiative (CAI) has led to a return of $1.46 to insurers/society for every $1 invested; an 80 percent reduction in the percentage of patients with one or more asthma-related hospital admission; and a 60 percent reduction in the percentage of patients with asthma-related emergency department visits in FY 2011.** Boston Children's Hospital implemented the CAI — a nurse and community health worker model — to provide additional support to improve the health of children with moderate to severe asthma in targeted Boston neighborhoods. CAI began serving asthma patients from targeted neighborhoods who visited the ER or who were hospitalized. The initiative provides a home environmental assessment and asthma management and medication education, while working with the family and child's health care providers to remove barriers to improve asthma control. A nurse also partners with community organizations, day care centers and schools to provide asthma education out in the community for parents and caregivers.

Boston Children's Hospital's Approach to Community Health: Using programs to achieve systemic change

By M. Laurie Cammisa, vice president for child advocacy and Elizabeth R. Woods, MD, MPH, director of the Community Asthma Initiative

Boston Children's Hospital does not have a community "benefits" mission. It does, however, have a community "health" mission that takes the hospital's community partnerships and activities beyond compliance with state and federal regulations for community benefits and creates health and social impact by addressing the most pressing health needs facing the children of Boston and beyond.

An innovative approach

In the early 1990s, the Attorney General for the Commonwealth of Massachusetts (MA AG) released new guidelines that called for hospitals to rethink their roles in meeting the health needs of their local communities. The processes of assessment and planning that were outlined in the MA AG's guidelines were recently mandated for all tax-exempt hospitals in the federal 2010 Affordable Care Act and in guidance from the Internal Revenue Service (IRS). While the regulations specify the actions that nonprofit hospitals throughout the country must take to achieve compliance, they also leave room to explore the ways in which hospitals can contribute to a changing health landscape.

At Boston Children's, what started as a response to regulatory requirements has evolved and matured into an innovative approach to advancing the hospital's community mission. This process began with the hospital's decision in 1994 to make community the fourth part of its mission in addition to clinical care, research and teaching.

The goal of the hospital's community mission today is two-fold: (1) partner with key community-based organizations to focus our collective resources in addressing the most pressing health needs of children and families in the local community, and (2) provide services through program models that not only benefit children locally but will also lead to systemic change. The hospitals seeks to accomplish these goals with an emphasis on promoting innovation to achieve social and health impact locally and contribute to systemic change throughout the health care system.

Since the very beginning, conversations and input from community residents and stakeholders have formed the backbone of Boston Children's approach to identifying and understanding which local and health-related issues are most important for families today. The hospital's formal needs assessment, conducted every three years, includes a review of best practice literature, an analysis of health data, and an assessment of current community needs and strengths. It also involves focus groups with community residents and interviews with key stakeholders. In its last formal needs assessment in 2009, Boston Children's interviewed 29 stakeholders, held focus groups with 91 community residents, and conducted these activities in two languages.

Ultimately, the community needs assessment enables Boston Children's to focus on how the hospital's clinical expertise and resources can most effectively address the most pressing needs of children and families, as well as reduce gaps in current services and programs.

One of the major challenges faced by any hospital in fulfilling its community mission is how to leverage limited resources to meet an almost limitless amount of need. Over time, Boston Children's determined that it could provide the greatest impact if it focused its efforts on a select few health issues in which it could work to produce measureable results. The hospital chose to focus its strategy on those issues that fall at the intersection of identified community needs, existing hospital expertise and available community partnerships. Based on this principal, the hospital's priority focus areas are the health issues of asthma, obesity, child development and mental health.

Central to the hospital's efforts to carry out its community mission is its collection of programs and partnerships referred to as the Portfolio to Achieve Health and Social Impact. This portfolio consists of four programs that seek to bring innovation to some of Boston's most pressing health issues: asthma, child development, mental health and obesity. It also includes three strategic partnerships with key organizations in the city of Boston — the Boston Public Schools, the Boston Public Health Commission and community health centers — to strengthen the infrastructure for child health throughout Boston. The hospital manages and measures these programs and partnerships with the goal of demonstrating new models to improve child health throughout the city, state and beyond.

The hospital manages this Portfolio with a triple focus.

One focus is to guarantee that the hospital's investment of resources (human and financial) is targeted to programs that address local needs, alleviate health disparities, partner and engage with our community and provide services through models that lead to systemic change.

Another is to ensure that, by employing a uniform set of standards and criteria, these programs measure value and social impact — things like improving health outcomes and quality of life, proving cost-effectiveness and building community capacity.

A third is to align with the hospital's overall need to excel in a changing health care environment. The hospital fits our focus areas and interventions into a continuum of care model that looks for ways to prevent short- and long-term illness and eliminate or avoid medical costs. By doing so, the community health programs are setting the stage for a number of key elements of national health care reform, including reductions in medical costs, the patient-centered medical home and population heath management.

One program in the Portfolio, the Community Asthma Initiative (CAI), provides an illustration of this innovation—addressing a health need, delivering services locally and then measuring health and social outcomes to initiate changes that will affect the broader community.

Community mission in action: The Community Asthma Initiative

Boston Children's had been tackling the issue of asthma for years through clinical services and community-based efforts to help educate families and caregivers on how to best manage the disease. Asthma is the most common admitting diagnosis for children, not only at Boston Children's but across the nation in pediatric settings. Analysis of admission rates revealed that 70 percent of patients with asthma-related hospitalizations at Boston Children's came from the neighborhoods immediately surrounding the hospital. In those communities, Black and Latino children had four to five times the admission rate of white children.

Results from Boston Children's 2003 community needs assessment confirmed what the hospital and other providers and experts already knew first-hand. Asthma was taking a toll on families in Boston

neighborhoods. More needed to be done to better manage this condition in order to prevent its damaging consequences—poor health status, loss of work for parents and caregivers and missed school days for children, not to mention additional stress and poor quality of life for the whole family.

Drawing on lessons learned in the clinical setting and earlier community-based intervention efforts, the hospital implemented the CAI in 2005 to provide more intensive support to improve the health of children with moderate to severe asthma in the Boston neighborhoods of Jamaica Plain, Roxbury and Dorchester. CAI began serving patients from the targeted neighborhoods who visited the emergency department or who were hospitalized because of an asthma exacerbation, as those children were most likely to have poorly controlled asthma. The program was not meant to replace the role of primary care providers, but rather be an additional partner and support in helping a family to manage their child's every day asthma care and connect patients more closely with their Medical Home.

CAI, which is a nurse and community health worker model, establishes a close relationship with the participating families and provides case management services depending on a child's unique medical and social needs. The initiative provides a home environmental assessment and asthma management and medication education, while working with the family and child's health care providers to remove barriers to improved asthma control. The CAI staff truly partners with the families—answering questions, listening to concerns, reinforcing the child's Asthma Action Plan, which outlines medications to give when the child is well, when symptoms develop and in case of emergency. They also provide education, materials and supplies to reduce home environmental triggers including High-Efficiency Particulate Air (HEPA) vacuums, which remove 99.97 percent of particles that are at least 0.3 micrometers, to every family.

In addition to working with families in the home, a nurse provides asthma education out in the community for parents and caregivers by partnering with community organizations, day care centers and schools. Through education and support, the nurse helps families understand that children with asthma can stay physically active with proper control of their symptoms.

After only one year, CAI was able to show that the model could improve health and quality of life outcomes, and it has sustained those results each subsequent year. Participating children in CAI experienced fewer asthma-related hospitalizations, emergency department visits and missed school days. Parents and caregivers also reported fewer missed work days. Equally important, the model proved to be cost-effective. In the March 2012 Journal Pediatrics, CAI reported its program costs as $2,529 per child for the first year of services. Because of the reduced hospital visits and admissions, CAI was able to save $1,621 per child in year one and $2,206 per child in year two. Essentially, for every $1 spent on the program, $1.46 is returned to society/insurers. Factoring in the savings due to the reductions in occupational or school absenteeism, CAI is helping to return $1.73 to society.

Community Asthma Initiative By the Numbers in FY11

- *CAI has reached 908 families since the program was established.*
- *Conducted 39 educational workshops for 683 parents and providers in the community.*
- *76 percent of the families participating in the program have received home visits.*
- *80 percent reduction in the percent of patients with any (one or more) asthma-related hospital admission.*
- *60 percent reduction in the percent of patients with any asthma–related emergency department visits.*
- *41 percent reduction in the percent of patients with any missed school days.*
- *46 percent reduction in the percent of parents/caregivers with any missed work days.*
- *For every $1 spent on the program, $1.46 is returned to society/insurers and $1.73 to society.*

Changing asthma care beyond Boston

From the program's inception, Boston Children's formed partnerships with asthma advocacy and community organizations to not only address the issue but show that this type of intervention could reduce hospitalizations and emergency room admissions, saving money for the community and insurers.

As the program began to demonstrate success, Boston Children's looked for ways to expand CAI's reach to benefit more children than it could through its own direct services. Thus in 2007, the hospital's Office of Government Relations partnered with the Asthma Regional Council (a coalition of federal and state health, environment, education and housing agencies) to develop a white paper for cost-effective asthma interventions. Based on experiences and outcomes from CAI, "Investing in Best Practices for Asthma: A Business Case" was written and disseminated urging payers to provide children with access to asthma services such as CAI. This sparked further work with other key partners, the Boston Healthy Homes and Schools Collaborative (BHHSC) and the Massachusetts Asthma Advocacy Partnership (MAAP), to use the business case to advocate for policy changes that would help ensure that all children in Massachusetts could benefit from enhanced asthma care.

After three years of advocacy, the efforts were successful in persuading the legislature to earmark $3M in the FY11 Medicaid budget to fund and evaluate a demonstration project that would provide case management services for children with poorly controlled asthma. Medicaid then set up an Asthma Bundled Payment Advisory Committee to develop the plan with Boston Children's and other advocacy partners serving on the committee. Recently, the Medicaid office approved funding for the proposed pilot program and plans to issue a request for proposals to select six pediatric practices to participate.

The impact of CAI is now poised to reach children and families beyond Massachusetts. CAI is providing technical assistance to the American Academy of Pediatrics which is preparing to replicate the model in Alabama. Ohio is also investigating the approach and plans to implement a similar type of intervention.

CAI represents what Boston Children's hopes to accomplish with its community mission, providing services locally in partnership with others to address health needs, while also validating that community-based models can be cost-effective solutions for public health problems. Through all of its community efforts, Boston Children's aims to show how a hospital can go beyond compliance with its community benefit investments, using its community mission as a way to unite other providers, community organizations, advocates, policymakers and families to initiate long-lasting and significant changes for the greater good.

For more on Boston Children's unique approach to its community mission and the Portfolio for Health and Social Impact, visit www.BostonChildrens.org/community.

A Menu Approach to Public Health: Empowering People to Take Responsibility for their Health Choices

By Tracy Neary, Director of Mission Outreach and Community Benefit, St. Vincent Healthcare

For nearly twenty years, St. Vincent Healthcare, a care site operated by the Sisters of Charity of Leavenworth Health System (SCL Health System), the Billings Health Clinic and RiverStone Health, our local health department, have been working together to address complex community wide health issues by adopting intervention strategies identified through a recurring CHNA.

A significant early collaboration came in 1994 when the CHNA showed access to prescription medications was a major issue for our community. We created a medication assistance program (MAP) that helped patients who couldn't afford prescriptions obtain them. Last year, MAP advocates, funded in part by St. Vincent Healthcare, assisted approximately 1,200 people with accessing medication worth more than four million dollars. What began as a single access point has expanded to a dozen locations across our community.

The initial collaboration, which began in the early 1990s, between the three organizations became more formal with a Memorandum of Understanding in 2001 to create "The Alliance". Chief executives of our two competing hospitals and the public health department committed organizational expertise in planning, communication, advocacy, community benefit and clinical services to help lead community efforts to improve health.

Through a CHNA, we found there was a significant need for mental health services, as hospital emergency departments were being inundated with people who didn't really need medical care but were admitted because of a mental health crisis. Knowing that emergency rooms are not typically the best place for mental health interventions, we created a joint partnership with the two hospitals to build the Community Crisis Center (CCC), the first licensed out-patient crisis management program in Montana.

Now, the CCC is staffed 24 hours per day, seven days per week with a combination of registered nurses, licensed mental health therapists, and mental health technicians. During an outpatient visit, clients are stabilized and assessed to facilitate the development of a crisis management plan.

The CCC has successfully reduced inappropriate utilization of local emergency departments, decreased the number of short-term inpatient hospital admissions, and has been a driving force in reducing the inmate population at the Yellowstone County Detention Facility.

Additionally, the CCC offers crisis intervention training to law enforcement officers in the region. Officers learn how to recognize mental health distress and de-escalate individuals rather than interacting with people in a way that escalates anxiety. Law enforcement officers credit the training with helping them more effectively respond to situations involving individuals with mental health disorders, especially those in suicidal situations.

One of our crisis intervention program officers, off duty at the time, was driving across a bridge and a man was on it threatening suicide. The officer was able to talk the person down without anyone getting hurt. This is one example of how a community program has a wide-reaching public health benefit. Instead of the individual hurting

himself and/or others, no one was hurt and the appropriate part of our community's medical system (the mental health portion versus an emergency department) was involved.

In 2005, RiverStone Health underwent an assessment of the public health system's performance in the 10 Essential Public Health Services established by CDC. The assessment was conducted using the National Public Health Performance Standards Program (NPHPSP), also established by the CDC. A key outcome of that assessment was an understanding of the need to perform a community health assessment and develop a community plan. The Alliance then sponsored the 2006 CHNA where childhood and adult obesity, heart disease, diabetes, nutritional intake, unintentional injury, and chronic depression were identified areas of weakness. Physical activity, nutrition, and well-being were selected as the areas of improvement because of their inter-connectedness and their collective benefit on our community's health. The results moved us to thinking about longer term population health improvements through policy, system and environmental change strategies. We began by creating an operational work plan, "The PITCH."

The Plan to Improve the Community's Health (PITCH) focuses on physical activity, nutrition, and well-being. PITCH is intended to increase awareness and knowledge of, as well as access to, healthier lifestyles in Yellowstone County. This plan was developed with a broad variety of community stakeholders who participate in achieving the identified goals as part of a broad coalition. With the support of the Robert Wood Johnson Foundation, one of the most impactful early Health Impact Assessments (HIA) we completed was with our city/county master growth plan. Results of the HIA led to the adoption of a new health section within the plan in 2008, which set the foundation for later success in adopting a complete streets policy for Billings. This accomplishment was supported in large part by our work with Action Communities for Health, Innovation, and EnVironmental ChangE (ACHIEVE).

As one of the ten original participants in the Healthy Weight Collaborative, a project of the National Initiative for Children's Healthcare Quality (NICHQ) and HRSA, we partnered with primary care providers to better document body mass index (BMI) in medical records and, if a BMI was too high, offer a patient-directed healthy weight plan. The efforts have created new collaboration between providers and community organizations.

The partnership has also launched an effort into the worksite by developing physical activity and nutrition guidelines. We found that it is important to create a menu approach of evidenced-based practices that have been shown to increase physical activity (i.e., promoting use of stairwells, on-site exercise classes, etc.). The menu option allows businesses to pick and choose which policies are appropriate in their environment and also empowers employers.

A similar project, the "Healthy By Design" (HBD) endorsement, was developed as a way of promoting events in Billings that are designed with health in mind. This endorsement is done through an application process and each application is reviewed and evaluated by a team of experts. There are five criteria: safety; nutrition; physical activity; prevention and wellness; and environmental stewardship.

As we look to the future and our interconnected health system, we see a community that is Healthy By Design with active people working to improve their own health and the health of those around them. It is a dream we plan to realize by continuing our work to identify unmet health needs and leading efforts to coordinate a community based response. We recognize the critical importance of key stakeholders in economic development, private business, city government, education, strategic planners in addition to traditional health partners. Our website, www.healthybydesginyellowstone.org includes our CHNA, work plans, accomplishments and a variety of tools we have developed to achieve our vision.

It Takes a Community to Prevent Prescription Drug Abuse

By Laura Fitzpatrick, Drug Free Program Manager and Advocacy Liaison, Muskegon Community Health Project

Founded in 1997, the Muskegon Community Health Project (MCHP), the local community benefit office of Mercy Health Partners hospital, is nationally known for their health access initiatives which are steeped in community collaborative groups. Muskegon's collaborative has 65 members from 38 local organizations including those from public health, education, law enforcement, court officials, substance abuse agencies, and health care, student organizations, and a variety of community based organizations.

At the outset, MCHP focused on tobacco and alcohol, forming the Tobacco Reduction Coalition and the Muskegon Alcohol Liability Initiative, an alcohol prevention law enforcement taskforce under the Coalition for a Drug Free Muskegon County.

The coalition began by sponsoring smoke-free restaurant and workplace initiatives, which ultimately paved the way for a smoke-free Michigan. They also worked on policy, student education efforts, and enhanced law enforcement efforts for both alcohol and tobacco, resulting in substantial declines in student use. Both community-led and supported initiatives steered many youths away from tobacco and alcohol use and abuse and helped them remain happy and healthy.

After several years focusing on alcohol and tobacco, our community turned its attention to prescription drug abuse prevention. The Coalition for A Drug Free Muskegon County, which was originally funded in 2005 from the Substance Abuse and Mental Health Association's (SAMSHA) Drug Free Communities (DFC) program, conducted a youth survey in 2009 that found that 17.4 percent of youth were trying medications that were not prescribed to them due to easy access. In addition, our law enforcement members reported an increase in residential break-ins especially by those seeking prescription drugs.

At the same time, other groups started looking at "take-back" programs that allow people to get rid of unneeded and unwanted drugs safely with no questions asked. Take-back programs are supported nationally by the ONDCP as excellent opportunities to reduce access to controlled substances. In addition, Lakeshore Health Network, the local physician member service organization, began investigating ways to provide education to physician offices on how to monitor prescription drug use and abuse.

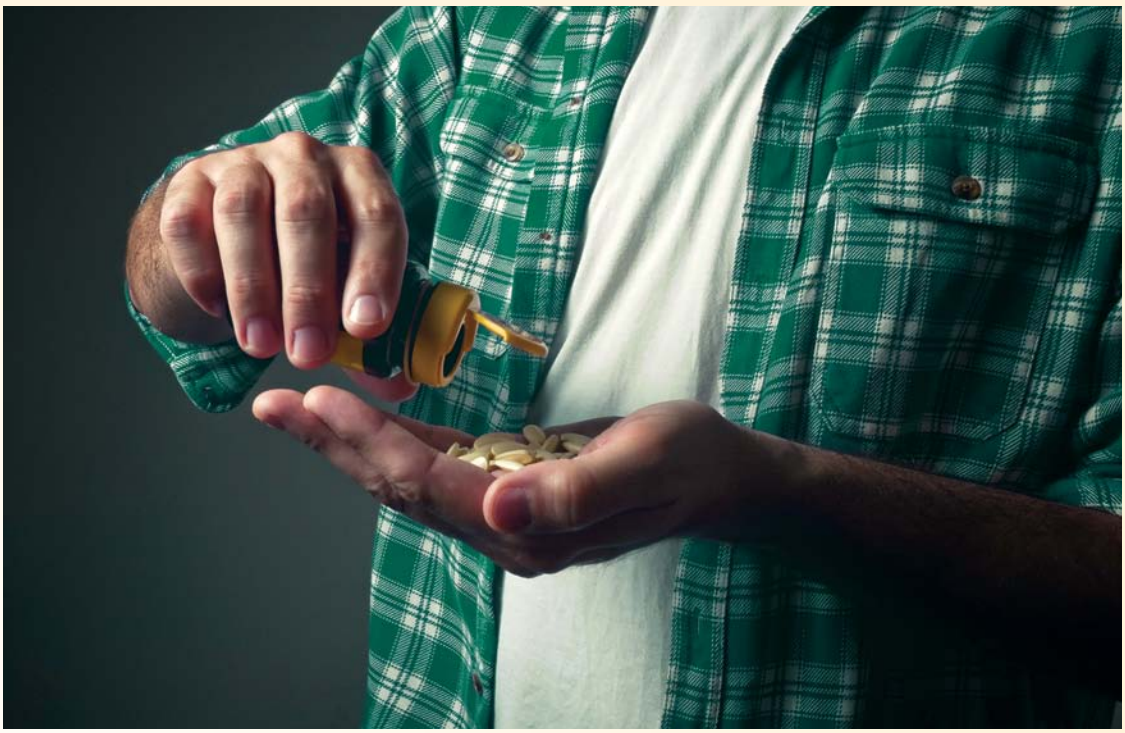
As multiple community organizations and resources were focused on take-back programs and prescription drug abuse, we quickly recognized an opportunity to serve multiple purposes with a single process. In September 2009, the Muskegon Area Medication Disposal Project (MAMDP) met for the first time, establishing the

Many communities throughout the country take advantage of federal prevention funding that comes in the form of community building and collaborative organizing through the Office of National Drug Control Policy's (ONDCP) Drug Free Communities Support Program. The premise of the DFC program is simple – that communities around the country must be organized and equipped to collaboratively deal with their individual substance abuse problems in a comprehensive and coordinated manner.

DFC is a collaborative initiative, sponsored by ONDCP, in partnership with SAMHSA, which works to achieve two goals:

- *Establish and strengthen collaboration among communities, public and private non-profit agencies, and Federal, State, local, and tribal governments to support the efforts of community coalitions working to prevent and reduce substance use among youth.*
- *Reduce substance use among youth and, over time, reduce substance abuse among adults by addressing the factors in a community that increase the risk of substance abuse and promoting the factors that minimize the risk of substance abuse.*

DFC grantees are required to work toward these two goals as the primary focus of their Federally-funded effort and they use a variety of ways to achieve local change in their respective communities. While the program offers direction and guidance to its grantees, it is up to the community on how they will achieve the change.



need to address this issue. The solution was to create several opportunities for our community to dispense with their drugs safely and securely.

MAMDP held our inaugural event in February of 2010 at a local fire station. We were overwhelmed by the public's response: 150 participants dropped off 500 pounds on the first day. Since then, we have hosted 11 events at multiple fire stations, established permanent drop sites throughout the county and collected over three tons of medications.

Of the 7,300 pounds of materials collected in the past two years, 30 percent was over the counter medications, approximately 18 percent comprised cardiovascular medications, 10 percent were diabetic medications and 10 percent, or 810 pounds, were controlled or unknown substances. We also collected 475 pounds of sharps or used needles.

In addition to collecting, we took the process one step further by counting and classifying everything we collected to help inform and then change consumer, systems and local practices when it came to prescribing drugs. We wanted to reduce the source of medications, which would reduce the ability to abuse these prescriptions. We also conducted participant surveys of those dropping the medications off to inform media messaging and better serve the community.

In 2011, the Muskegon Area Medication Disposal Project established permanent multiple collection sites at area pharmacies and law enforcement agencies which now provide a more sustained approach. The future local project continues to build upon its successes and strives to keep educating the community and connecting with local resources.

"The numbers tell a compelling story that you have a hard time disputing", says Joe Graftema, PharmD, Mercy Health Partners Inpatient Pharmacy Manager and a long time MAMDP leader who coordinates the substance counting and classifying at the one day events. "We've been able to inform physicians, hospital leaders, pharmacists and health plan managers who can and have changed their practices or policies."

At a recent physicians education seminar put together by the project partner Lakeshore Health Network, the MAMDP members were encouraged by the physician response.

"We were impressed at the engagement and interest that the doctors had in changing their prescribing behaviors based upon the information from our disposal project" said MAMDP Chair Carrie Uthe. "They were so surprised about the amount of waste that unused medications were creating and the other safety and environmental issues."

For more information go to www.MCHP.org

3. PARTNER WITH SECTORS BEYOND THE HEALTH SYSTEM

Putting common-sense measures to improve health into place requires partnerships that reach outside of the traditional health care arena. Healthy neighborhoods, healthy schools and healthy workplaces must be accessible to all Americans. Integrating prevention strategies into our country's and our communities' education, transportation and other policy arenas is critical to ensuring healthy choices are available.

a. FULLY MAINTAIN THE PREVENTION AND PUBLIC HEALTH FUND

Current Status:

The ACA for the first time in the nation's history creates a dedicated fund for prevention. The Prevention and Public Health Fund is the nation's largest single investment in prevention and takes an innovative approach by supporting cross-sector and public-private partnerships and collaborations to improve outcomes. The Prevention Fund provides more than $12.5 billion in mandatory appropriations over 10 years to improve public health and prevent chronic illnesses, including obesity and related diseases, through increased screenings, counseling and care and community-based prevention programs. Prevention Fund dollars also provide investments to expand and offer additional training for the public health workforce. Since 2010, more than $2 billion has been distributed from the Fund.

The Fund supports services and programs that allow health to be improved in communities, schools, workplaces and homes through encouraging healthier lifestyles and eliminating obstacles to healthy life choices. The Fund:

- Supports community-driven prevention efforts targeted at reducing tobacco use, increasing physical activity, improving nutrition, expanding mental health and injury prevention programs, and improving prevention activities;
- Provides financial support directly to states and communities, and gives them flexibility to address their most pressing health challenges; and
- Invests in programs that are proven, effective prevention efforts. Oversight and evaluation is a key component of every Fund-sponsored program, and strict performance measures ensure accountability before federal dollars are spent.

In 2012, Congress enacted legislation that cut more than $5 billion from the Fund to partially offset the cost of extending certain tax cuts and unemployment insurance, as well as the Medicare "doc fix," which maintains a high reimbursement rate to doctors who accept Medicare patients. Several additional attempts have been made to eliminate the Fund entirely or repurpose its priorities to cover funding shortfalls in other programs.

Why The Prevention Fund Matters:

- The Fund is being used for programs at the local, state and federal level to reduce the rate of obesity and tobacco use by five percent within five years. Obesity and tobacco are two of the leading drivers of chronic diseases and related health care costs. For instance, reducing obesity by lowering the average BMIs of Americans by five percent could spare millions of Americans from diseases including type 2 diabetes, heart disease and cancer, and could save $29.8 billion in health care costs in five years, $158.1 billion in 10 years and $611.7 billion in 20 years. Nearly every state that reduced BMIs by five percent could save between 6.5 percent and 7.9 percent in health care costs.[60]
- The Fund enables state and local health officials to respond to emergencies that put citizens' lives and health at stake — including natural disasters, terrorist attacks, infectious disease outbreaks, and unsafe food, air and water.
- The Fund creates job opportunities by providing training and financial assistance for workers, and invests in up-to-date equipment and technology needed to protect communities from disease outbreaks and other health threats.

Recommendations:

- ▲ **Ensure full funding of the Prevention and Public Health Fund.** Funding for the Prevention and Public Health Fund must be restored to original funding levels. In addition, consistent with the intent of the Fund, it should be used to supplement existing health program funds, rather than supplant them or justify cuts to other health programs.

b. EXPAND COMMUNITY TRANSFORMATION GRANTS TO BENEFIT ALL AMERICANS

Current Status:

CTGs, a component of the Prevention and Public Health Fund created by the ACA, are targeted at addressing the leading causes of chronic diseases to improve the health of Americans and reduce health care costs over the long term. They are administered and supported by CDC.

Awardees can use the grants to target the causes of chronic diseases — by supporting tobacco-free living, active living and healthy eating, and clinical and community preventive services to prevent and control high blood pressure and high cholesterol; or developing programs that focus on disease prevention and health promotion, including social and emotional wellness and healthy and safe physical environments.

CTGs are required to base their efforts on proven, evidence-based approaches and must meet measurable, achievable outcomes to receive federal dollars. They are developed by community members working together at the local level, not federal policymakers who may not understand the specific community's needs.

CTGs are expected to improve the health of 130 million people — more than four out of 10 Americans. In 2011, $103 million was awarded to 61 communities in 36 states, serving approximately 120 million Americans. In 2012, $70 million was awarded to 40 communities, directly impacting about 9.2 million Americans. Twenty percent of all programs are in rural or frontier areas.[61]

Why CTGs Matter:

- CTGs allow communities to work with partners from a range of sectors to design specific interventions that meet the most pressing needs of their populations.
- CTGs invest in proven, effective community-based interventions, and focus on addressing the leading causes of chronic disease, such as tobacco use, obesity, poor nutrition and health disparities.
- Within five years, CTG grantees are expected to reduce the following by five percent: death and disability due to tobacco use; the rate of obesity (through nutrition and physical activity interventions); and death and disability due to heart disease and stroke.[62]

Recommendations:

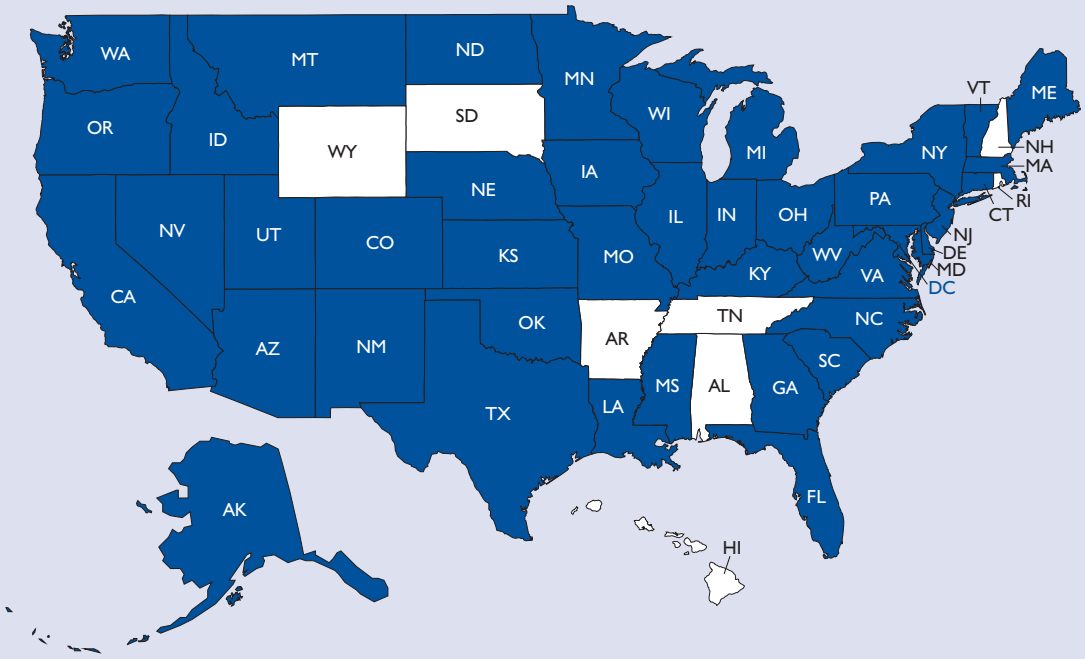
▲ **Increase the number of Community Transformation Grants so that all Americans benefit.** Because of limited funding, only 40 percent of Americans benefit from the long-term benefits and cost savings generated in communities that receive these grants. Congress should double the current investment to expand the number of CTGs awarded, so that the program can be scaled up to address communities all across the country.

HOW IT'S WORKING:

- **West Virginia utilized CTGs to help local health departments in every county address the top challenges facing their community and develop solutions.** The West Virginia Department of Health used CTG support to help local health departments in every county in the state implement targeted initiatives including: safe places in communities to work and play, Farm-to-School Initiatives to improve nutrition in school settings, Child and Day Care Center Nutrition Programs to educate and empower children to choose healthy lifestyles through physical activity and healthy food choices, and community coordinated care systems that link and build referral networks between the clinical system and community-based lifestyle programs so people can manage their health.
- **Oklahoma is using a CTG to work with a range of sectors to make healthier choices easier in the state.** Nearly 70 percent of Oklahoma County's premature deaths are largely preventable, arising from an unhealthy lifestyle, poor diet or the use of tobacco, alcohol or other substances. In addition, the county spends about $920 million every year to treat chronic disease.[63] In September 2011, Oklahoma City was awarded a $3.5 million CTG. Using a portion of those funds, along with additional outside resources, the Oklahoma City-County Health Department (OCCHD) created the "My Heart, My Health, My Family" program to provide prevention programs and services, specifically focused on cardiovascular disease. The program includes lesson plans on healthy living (e.g. portion control and the benefits of substituting water for sugar sweetened beverages) and participants receive access to free regular clinical checkups four times a year and free medication. The CTG money will also support other obesity-specific initiatives, including a campaign to reduce consumption of sugary beverages, expanded walking and biking trails, a push to help schools offer healthy menu options and a physical education coordinator for city schools.[64]

Community Transformation Grants (CTGs)

In 2011, CDC awarded $103 to 61 state and local government agencies, tribes and territories and nonprofit organization in 36 states and nearly $4 million to six national networks of community-based organizations. In 2012, approximate $70 million was awarded to 40 smaller communities (areas with more than 500,000 people in neighborhoods, school districts, villages, towns, cities and counties).



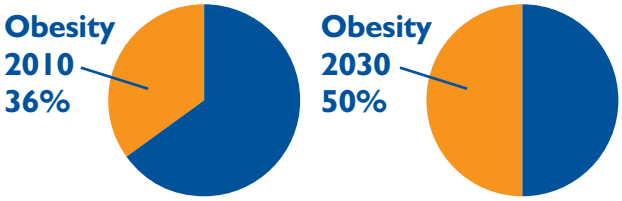
State	Type of Award and Year
Alaska	■ Southeast Alaska Regional Health Consortium (Implementation 2011) ■ Yukon-Kuskokwim Health Corporation (Capacity-Building 2011)
Arizona	■ Tohono O'odham Community Action (Small Community 2012)
California	■ Public Health Institute (Implementation 2011) ■ San Francisco Department of Public Health (Implementation 2011) ■ County of San Diego Health and Human Services Agency (Implementation 2011) ■ Los Angeles County Department of Public Health (Implementation 2011) ■ County of Kern, Public Health Services Department (Capacity-Building 2011) ■ Fresno County Department of Public Health (Capacity-Building 2011) ■ Sierra Health Foundation (Capacity-Building 2011) ■ Stanislaus County Health Services Agency (Capacity-Building 2011) ■ Ventura County Public Health (Capacity-Building 2011) ■ Toiyabe Indian Health Project (Capacity-Building 2011) ■ Community Health Councils, Inc. (Small Community 2012) ■ County of Sonoma (Small Community 2012) ■ St. Helena Hospital Clear Lake (Small Community 2012) ■ County of Santa Clara (Small Community 2012)
Connecticut	■ Connecticut Department of Public Health (Capacity-Building 2011)
Colorado	■ Denver Health and Hospital Authority (Implementation 2011)
Delaware	■ Nemours/Alfred I. duPont Hospital for Children (Small Community 2012)
District of Columbia	■ District of Columbia Department of Health (Small Community 2012)
Florida	■ Broward Regional Health Planning Committee (Implementation 2011) ■ School Board of Miami-Dade County (Small Community 2012)

Community Transformation Grants (CTGs)	
State	**Type of Award and Year**
Georgia	■ Cobb Public Health (Capacity-Building 2011) ■ Tanner Medical Center, Inc. (Small Community 2012)
Idaho	■ Benewah Medical Center (Small Community 2012)
Illinois	■ Illinois Department of Public Health (Implementation 2011) ■ Chicago Public Schools, District 229 (Small Community 2012) ■ Quality Quest for Health of Illinois, Inc. (Small Community 2012)
Indiana	■ Welborn Baptist Foundation, Inc. (Small Community 2012)
Iowa	■ Iowa Department of Public Health (Implementation 2011)
Kansas	■ YMCA of Wichita (Small Community 2012)
Kentucky	■ Louisville Metro Department of Public Health and Wellness (Implementation 2011) ■ Unlawful Narcotics Investigation Treatment Education, Inc (Unite) (Capacity-Building 2011) ■ Microclinic International (Small Community 2012)
Louisiana	■ Louisiana Department of Health and Human Services (Capacity-Building 2011) ■ Linking the Parish, Inc. (Small Community 2012)
Maine	■ Maine Department of Health and Human Services/Maine CDC (Implementation 2011) ■ MaineGeneral Medical Center (Small Community 2012) ■ Maine Development Foundation (Small Community 2012) ■ MaineHealth (Small Community 2012) ■ Healthy Acadia (Small Community 2012)
Maryland	■ Maryland Department of Health and Mental Hygiene (Implementation 2011) ■ Institute for Public Health Innovation (Small Community 2012) ■ Prince George's County (Small Community 2012)
Massachusetts	■ Massachusetts Department of Public Health (Implementation 2011) ■ Massachusetts Department of Public Health Middlesex County (Implementation 2011) ■ Pioneer Valley Planning Commission (Small Community 2012) ■ YMCA Southcoast (Small Community 2012)
Michigan	■ Sault Ste. Marie Tribe of Chippewa Indians (Implementation 2011) ■ Spectrum Health Hospitals (Capacity-Building 2011) ■ Central Michigan District Health Department (Small Community 2012)
Minnesota	■ Minnesota Department of Health (Implementation 2011) ■ Hennepin County Human Services and Public Health Department (Implementation 2011) ■ Minneapolis Heart Institute Foundation (Small Community 2012)
Mississippi	■ My Brother's Keeper, Inc. (Capacity-Building 2011)
Missouri	■ Mid-America Regional County Community Services Corporation (Implementation 2011) ■ Ozarks Regional YMCA (Small Community 2012)
Montana	■ Montana Department of Public Health and Human Services (Implementation 2011)
Nebraska	■ Douglas County Health Department (Implementation 2011)
Nevada	■ Clark County School District (Small Community 2012)
New Jersey	■ New Jersey Prevention Network (Capacity-Building 2011)
New Mexico	■ New Mexico Department of Health (Implementation 2011) ■ Bernalillo County Office of Environmental Health (Capacity-Building 2011)
New York	■ The Fund for Public Health in New York (Implementation 2011) ■ University of Rochester Medical Center (Implementation 2011) ■ Health Research, Inc./New York State Department of Health (Small Community 2012)
North Carolina	■ North Carolina Division of Public Health (Implementation 2011)
North Dakota	■ North Dakota Department of Health (Capacity-Building 2011)

Community Transformation Grants (CTGs)	
State	**Type of Award and Year**
Ohio	■ Austen BioInnovation Institute (Capacity-Building 2011) ■ Public Health – Dayton and Montgomery County (Capacity-Building 2011) ■ The Lima Family YMCA (Small Community 2012)
Oklahoma	■ Oklahoma City-County Health Department (Implementation 2011) ■ Little Dixie Community Action Agency, Inc. (Small Community 2012) ■ Indian Nation Council of Governments Area Agency on Aging (Small Community 2012) ■ Cherokee Nation (Small Community 2012)
Oregon	■ Northeast Oregon Network (Small Community 2012) ■ City of Beaverton (Small Community 2012)
Pennsylvania	■ Philadelphia Department of Public Health (Implementation 2011) ■ Lancaster General Health (Capacity-Building 2011)
South Carolina	■ South Carolina Department of Health and Environmental Control (Implementation 2011) ■ YMCA of Greenville (Small Community 2012)
Texas	■ Texas Department of State Health Services (Implementation 2011) ■ City of Austin Health and Human Services Department (Implementation 2011) ■ Houston Department of Health and Human Services (Capacity-Building 2011) ■ Project Vida (Small Community 2012)
Utah	■ Utah Department of Health (Capacity-Building 2011)
Vermont	■ Vermont Department of Health (Implementation 2011)
Virginia	■ Fairfax County Department of Neighborhood and Community Services (Capacity-Building 2011)
Washington	■ Washington State Department of Health (Implementation 2011) ■ Tacoma-Pierce County Health Department (Implementation 2011) ■ Confederated Tribes of The Chehalis Reservation (Capacity-Building 2011) ■ Sophie Trettevick Indian Health Center (Capacity-Building 2011) ■ Seattle Children's Hospital (Small Community 2012) ■ Inland Northwest Health Services (Small Community 2012)
West Virginia	■ West Virginia Bureau of Public Health (Implementation 2011) ■ West Virginia University Research Corporation (Small Community 2012)
Wisconsin	■ University of Health Services, University of Wisconsin Madison (Implementation 2011) ■ Great Lakes Inter-Tribal Council, Inc. (Capacity-Building 2011)
Territories	■ Ulkerreuil A Klengar (Capacity-Building 2011)
National Networks	■ American Lung Association (2011) ■ American Public Health Association (2011) ■ Asian Pacific Partners for Empowerment, Advocacy and Leadership (2011) ■ Community Anti-Drug Coalitions of America (2011) ■ National REACH Coalition (2011) ■ YMCA of the USA (2011)

HALF OF AMERICANS COULD BE OBESE BY 2030

An analysis conducted by the National Heart Forum, based on a peer-reviewed model published last year in The Lancet, estimates that that 50 percent of Americans are on track to be obese in the next 20 years.[65] Obesity could even top 60 percent in 13 states. Right now, 36 percent of Americans are obese.



Obesity-Related Diseases, 2012		Rise in Obesity-Related Diseases, 2030	
Type 2 diabetes	25 million Americans	Type 2 diabetes	6 million new cases
Coronary heart disease and Stroke	27.8 million Americans	Coronary heart disease and stroke	5 million new cases
Obesity-Related Cancer	One in three cancer deaths is related to obesity, poor nutrition or physical inactivity – approximately 190,650 per year	Obesity-Related Cancer	400,000 new cases

Obesity-Related Health Care Costs, 2012	Rise in Obesity-Related Health Care Costs, 2030
$147 billion	Between $195 Billion and $213 Billion

Community Transformation Grants: Reducing Obesity by 5 Percent

CTGs are a key investment of the Prevention Fund. A performance measure of CTGs is to reduce the rate of obesity by 5 percent using evidence-based nutrition and physical activity programs that have proven results. CTGs will benefit more than one in three Americans, approximately 145 million people.

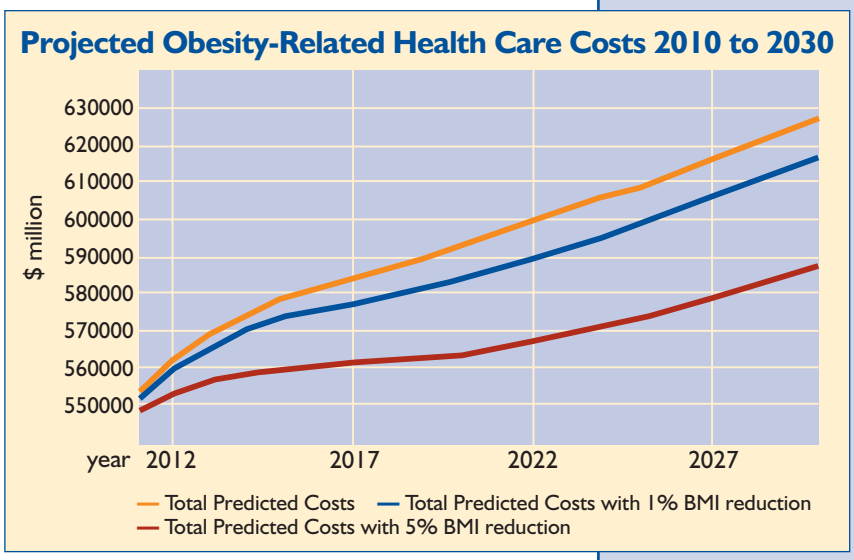
Impact of Reducing Obesity

A 2012 analysis by the National Heart Forum found that reducing obesity, specifically by reducing BMI by 5 percent in states by 2030, millions of Americans could be spared from diseases and billions could be saved in health care spending.[66]

If BMIs were lowered by 5 percent by 2030, the number of Americans who could be spared from developing major obesity-related diseases could range from:

- Type 2 diabetes: 14,389 in Alaska to 796,430 in California;
- Coronary heart disease and stroke: 11,889 in Alaska to 656,970 in California; and
- Obesity-related cancer: 809 in Alaska to 52,769 in California.

And, nearly every state by could save between 6.5 percent and 7.9 percent in obesity-related health care costs.



Local Health Officials: Chief Health Strategists Transforming Communities

By Rahul Gupta, Health Officer and Executive Director, Kanawha-Charleston Health Department

Just like the rest of the country, West Virginia and Kanawha County has been battling the obesity epidemic for decades. Across the state, there have been a myriad of physical activity, nutrition and other initiatives focused on helping people get to and remain at a healthy weight.

However, when these obesity prevention programs came in, there was a huge problem with sustainability so after a few years a program would lose funding and disappear. Quickly, residents saw these programs as fads or simply flashes in the pan. A lot of communities around the state felt kind of used, they were put into a program and researched and when the grant was up, the program was gone and, with it, the support, incentives and staffing. There was nothing built into the infrastructure of the community so there was no capacity left to sustain the process. Clearly, as obesity rates and chronic conditions like diabetes continue to increase, this incremental, start and stop approach has failed.

Realizing this early on, our community created an independent Health Coalition in Kanawha County that included the local hospitals, K-12 education systems, higher education, business and other people who had a stake and roots in our community. While health and wellbeing is a personal responsibility, it is the local, state and national government's job to provide easy outlets for citizens to reach their goals. The founding idea of the coalition was that if there are challenges facing the community, they will be brought to the coalition and they will be solved and resources will be dedicated by partner agencies.

As the coalition's benefits to the community became apparent, it was obvious that the state needed more of these county-level coalitions across West Virginia.

Transforming Communities

When the CTG program was launched in May, 2011, we saw this as an opportunity to obtain the kind of resources and support that could stand up programs and capacity which would then remain in place after grant dollars disappeared.

The CTGs made it even easier to bring stakeholders and institutions to a common table to talk about health. At the outset, we had over 100 organizations interested in being part of transforming the state and local communities.

As we learned our lesson from past grants and programs, we weren't going to let everyone get their piece of the CTG pie and go home in a silo. We wanted to ensure that each community worked with each other as well as across the traditional silos, so efforts were complimentary, not duplicative.

It became evident that the best conduit for the grant money and ideas to flow was through Local Health Departments (LHDs). Our plan was to position the LHDs from all 55 counties as wellness or healthy living hubs for their communities. They would work with the local and state Departments of Education, West Virginia's Universities and the Osteopathic School to ensure plans would work and were research driven and connected to clinical settings.

While it might not seem like a huge shift, this was a culture change in how resources and grants were distributed across the state. Instead of each LHD getting their money and going home, it was clear the funding was to build capacity, i.e., the resources and ability to do things — sort of how it's better to teach a man to fish than simply give him a fish. LHDs were also the natural lead because they were trusted voices in the community and, quite simply, they weren't going anywhere. Every day, in each community across West Virginia (and across the nation, for that matter) local health employees serve to carry out and accomplish the basic public health needs of their jurisdictions. As a result, our communities are safer, healthier and protected from deadly diseases.

Once we had the framework in place, we went back to communities to understand their needs. Every three years, our county coalition conducts a needs assessment, which includes telephone surveys, focus groups, and key informant surveys. A community forum, which is open to the public, is held to prioritize the top three health concerns in the county. Once identified, work groups are formed to address these health concerns over the next three years within the county after which the process recommences with a new needs as-

sessment. Examples of health concerns that our community has asked to address in the past have included high rates of tobacco use including second hand smoke, poor nutritional standard, lack of physical activity and prevalence of substance abuse.

While we haven't been able to create a statewide Comprehensive Clean Indoor Air Regulation (CIAR), that hasn't stopped LHDs like Kanawha-Charleston Health Department (KCHD) from creating their own ordinances and enforcing them — it's great to enact a policy, but the enforcement has to be just as good.

In Kanawha County, our Sanitarians conduct close to 5,000 inspections annually to ensure our CIAR ordinance is enforced and we have a near 100 percent compliance rate. To build support in our community for the ordinance, we took not only a policy approach (discussing the medical benefits of clean air), but also a social/media approach, business approach (showing that it would not hurt bars or restaurants but actually could increase business), and a science and research approach (we demonstrated a 37 percent reduction in heart attack related hospital admission rate in presence of CIAR over eight years — published in CDC's Preventing Chronic Diseases, July 2011 issue). Every facet of our community became advocates for clean air for different reasons — a one-time tobacco-reliant community transformed into one with clean air.

Meanwhile, at a state level, we continue to work toward enacting a statewide comprehensive law. While it has happened incrementally, the capacity and know-how is there across the state. In fact, our local ordinance has been utilized by the state's Division of Personnel to implement a state employee policy against second hand smoke. Consequently, the state government, without legislation, has adopted a comprehensive clean indoor air regulation for all state employees, which reaches and benefits thousands of West Virginians.

In addition, in doing our needs assessment, it became clear that people simply didn't have access to safe places to work out and play. There was a huge barrier on the environmental side in our community: there were no sidewalks and the areas with the largest populations had no options for physical activity. We needed to connect those who wanted to work out with safe places to do so.

In Kanawha County, we built a Physical Activity Sites Google Map (http://www.kchdwv.org/Home/Health-Promotion.aspx). It includes a Google map of all physical activity opportunities in the County as well as tools such as walk score, Everytrail and Gmaps pedometer which can be used on mobile devices. The map empowers people to seek out nearby physical activity outlets. We hope to replicate this model in other counties across the state through CTG.

In addition, we're looking to improve nutrition and physical activity in school and after-school settings, by, most notably:

- Farm-to-School Initiatives: We have developed blueprints and guides for county Food Service Directors and farmers, giving them the capacity and knowledge to stand up their own sustainable programs.
- Child and Day Care Center Nutrition Programs: We implemented the "Be Choosy, Be Healthy" program, which educates and empowers children to choose healthy lifestyles. We have also expanded the "I am Moving, I am Learning" curriculum, which increases physical activity and promotes healthy food choices.

Lastly, our state is supporting the development of community coordinated care systems that link and build referral networks between the clinical system and community-based lifestyle programs that can help people overcome disease and disability and manage their health. We've linked clinicians with programs like Dining with Diabetes, Patient Centered Medical Home pilot initiatives, the National Diabetes Program and Chronic Disease Self-Management Program.

We want programs to be complimentary to clinical practice. If a physician is seeing 30 patients a day that need diabetes/weight loss resources, we need to provide these clinicians with the capacity and information to direct their patients to a referral network outside the doctor's office. This approach is both time and cost effective and has the potential for healthier outcomes for patients.

West Virginia has worked long and hard to reverse the obesity epidemic. We've learned what doesn't work and we're beginning to transform our state, community by community. It's become clear that we need to provide people with the resources to create their own programs and that positioning LHDs as chief health strategists will ensure capacity is maintained and programs continue if grant funding disappears. By ensuring that education, health, commerce and other key stakeholders are responsible for setting and enforcing policy, the entire community truly has a stake in the health and wellbeing of everyone.

Providing a Holistic, Community-based Approach to Substance Abuse

By Karen Kelly, UNITE President/CEO

Prescription drug abuse is inflicting a devastating toll on families and communities across southern and eastern Kentucky, a region of Appalachia already shackled by economic and environmental obstacles.

Our commonwealth ranks as the fourth most medicated state in the nation; Kentuckians are abusing prescription painkillers at an alarming rate of about one in 15 residents. And with addiction comes death — nearly 1,000 lives (82 per month) in 2011, more than from motor vehicle crashes.

The prescription drug problem proliferated largely unchecked until early 2003, when a series of articles was published exposing the addiction and corruption associated with abuse across southern and eastern Kentucky — a problem chiefly associated with the painkiller OxyContin. Reacting to this disturbing news, Kentucky Fifth District Congressman Harold "Hal" Rogers formed Operation UNITE (Unlawful Narcotics Investigations, Treatment and Education) to provide a holistic, community-based approach to address these problems.

UNITE works to rid communities of illegal drug use and misuse of prescription drugs through undercover narcotics investigations, coordinating treatment for substance abusers, providing support to families and friends of substance abusers, and educating the public about the danger of using drugs. Involving broad-based community representation, UNITE's volunteer community coalitions are empowered to educate and activate individuals to no longer accept or tolerate the drug culture.

While grassroots initiatives target the most pressing local needs, UNITE provides regional support through a multi-faceted, synergistic offering of programs. These include: treatment vouchers for low-income residents, creating more than 30 Drug Court programs (an intensive alternative to incarceration for non-violent drug offenders), funding residential treatment beds, offering drug-free workplace and community education trainings, creating nearly 100 in-school anti-drug UNITE Clubs, funding a 30-member AmeriCorps program at three dozen elementary schools, and hosting a week-long summer camp for at-risk middle school youth, among others.

In 2007, UNITE was one of 12 organizations invited to participate in a White House Roundtable with President George W. Bush to discuss the growing prescription drug abuse issue. UNITE's ability to form partnerships and elicit proactive involvement of communities was touted as a model for the nation.

Addressing the Issues

About 59 percent of the Kentucky Cabinet for Health and Family Services' cases of children killed or nearly killed because of abuse or neglect in 2009-10 involved suspected substance abuse by parents or caregivers. Nationally, it is estimated that 75 percent or more of abuse and neglect cases involve substance abuse.

Fueling an addiction becomes the primary focus of parents and caregivers, resulting in diversion of limited resources to drugs instead of food, clothing and other needs of their children. In addition, the impaired state of an addict can lead to harmful decisions.

Anecdotal evidence suggests that 75-80 percent of all crime is related in some way to substance abuse. In addition, Kentucky's medical providers are overwhelmed with drug-related incidents, while the workers' compensation industry loses millions of dollars annually to fraud. This menace hurts the economic climate and sours a community's quality of life.

Just as the disease of addiction impacts more than the addict, prevention involves more than simply stopping the flow of illegal drugs and diversion of prescription and over-the-counter medications. Sure we must incarcerate the criminal element, but transforming society requires generational changes in attitude, providing nurturing environments for those seeking to rebuild their lives, along with instilling opportunity and hope.

UNITE's approach has sought to tackle the underlying contributing causes of substance abuse and tap into the time and talents of concerned community members.

UNITE is currently in the capacity-building phase of a HHS CTG to support public health efforts intended to reduce chronic diseases, promote healthier lifestyles, reduce health disparities, and control health care spending. This program will serve 119 of the state's 120 counties.

This fall, under the leadership of UNITE's Medical Advisory Council with funding from an Appalachian Regional Commission grant, a series of five symposiums are planned to educate doctors and dispensers about the dangers of prescription drug abuse and how to use the state's Kentucky All Schedule Prescription Electronic Reporting (KASPER) system.

In order to tap the time and talent of community volunteers, UNITE has created a series of ready-to-use educational kits that trained individuals can present. Each kit includes promotional materials, a PowerPoint presentation, and step-by-step implementation guide.

Accidental Dealer

A national study conducted by the National Center on Addiction and Substance Abuse at Columbia University™ in 2011 found 46 percent of all high school students currently use addictive substances, and one in three meets the medical criteria for addiction. According to the Substance Abuse and Mental Health Services Administration, an estimated 70 percent of teens obtain these drugs from family members or friends — often without their consent.

This kit educates individuals on the importance of tracking and securing your medications in the home. UNITE recently partnered with Kentucky Employers' Mutual Insurance (KEMI) — the state's largest provider of workers' compensation insurance — to provide medication lockboxes to residents.

One-Step Misery: Kentucky Meth Epidemic

With the number of methamphetamine incidents at record levels across the state, more and more innocent people are being impacted — not only emergency responders and health care workers, but on work sites, in our neighborhoods and in our schools.

The number of meth lab incidents has spiraled out of control, increasing 400 percent from 2007 to 2011, ranking Kentucky fourth in the nation. This campaign — spearheaded by Appalachia HIDTA (High Intensity Drug Trafficking Area), UNITE, the Kentucky State Police and the Kentucky Narcotic Officers' Association — explains the problem and why people should be concerned.

It also focuses on a possible solution: require a prescription for cold and allergy medications containing pseudoephedrine — the only required ingredient of meth for which there is no substitute.

Addicted: A Dose of Reality

This hard-hitting program is designed to give parents and caregivers the truth about the dangers and availability of drugs. The three-part presentation combines parenting techniques, the science of addiction, and the ins and outs of trendy drugs relevant to their community.

Combining video testimonies from recovering addicts and parents of addicts, authentic information about drug addiction is packed into the presentation.

Life With a Record

Currently in production, this kit will detail the consequences of having a drug-related conviction on your record.

National Rx Drug Abuse Summit

Kentucky is not alone in facing the prescription drug problem, now categorized as an "epidemic" by CDC. Prescription drug abuse continues to be a significant and growing problem that cuts across geographical regions, age groups, social class, economic standing, occupation and ethnic background.

Guided by a National Advisory Board, UNITE coordinated the 2012 National Rx Drug Abuse Summit featuring thought-provoking presentations by 100 experts and leaders in five educational tracks: health care, advocacy and prevention, human resources, treatment and law enforcement. More than 700 stakeholders — representing 45 states, the District of Columbia and three other countries — participated in the Summit, which included a forum with members of the Congressional Caucus on Prescription Drug Abuse.

This discussion on prescription drug abuse issues will continue with a second National Rx Drug Abuse Summit, to be held at the Omni Orlando Resort at ChampionsGate in Florida on April 2-4, 2013.

For more information about Operation UNITE visit their website at www.operationunite.org. To learn about the Summit visit www.nationalrxdrugabusesummit.org.

In 2003, Fifth District Congressman Harold "Hal" Rogers (R-Somerset) worked to create Operation UNITE, a regional anti-drug initiative empowering citizens groups and community leaders in 29 southern and eastern Kentucky counties. UNITE, which stands for Unlawful Narcotics Investigations, Treatment & Education, seeks to fight the drug epidemic by expanding drug awareness and education programs to keep people from using drugs; coordinating drug treatment and outreach programs for those who are already addicted; and operating regional undercover law enforcement task forces for interdiction and prosecution of those dealing drugs. For more information contact Karen Kelly toll-free at 1-866-678-6483.

Achieving Positive Results for Children: Nemours' Role as an Integrator

By Debbie I. Chang, MPH, Vice President, Policy and Prevention, Nemours & Mary Kate Mouser, Executive Director, Nemours Health and Prevention Services

Nemours, a children's health system operating in the Delaware Valley (Delaware, New Jersey and Pennsylvania) and Florida, offers pediatric clinical care, research, education, advocacy and community-based prevention programs in the communities we serve.

In 2004, with childhood obesity rates continuing to climb and associated health outcomes increasing among the children and families we serve, we expanded our mission beyond providing clinical care to include health promotion and disease prevention. We embraced a model of integrated care and prevention that would improve quality, address rising health care costs and improve the health of the population of children in Delaware. Our goal was to prevent obesity, type 2 diabetes and other chronic conditions, not just for our patients, but for all children in Delaware. We began our efforts in the state of Delaware, with a focus on reaching children and families in the places where they live, learn and play. To execute on this strategy, we created a new operating division — Nemours Health and Prevention Services (NHPS).

As we looked at the mounting problems related to childhood obesity (in 2006, 17.6 percent of children ages 2-17 were overweight and 19 percent were obese)i and consulted with key stakeholders, it became clear that a multi-pronged approach with a focus on quality medical care combined with community-based prevention strategies offered the greatest likelihood of success. Under the umbrella of the "Campaign to Make Delaware's Kids the Healthiest in the Nation," Nemours worked with partners from multiple sectors — schools, child care, primary care practices and community-based organizations — to positively influence children's behavior and help instill healthy habits early in children's lives.

Throughout the course of this work, Nemours assumed the role of an "integrator", an entity working at a population level to promote prevention and improve health and well being. We sought to spread and sustain what works, through a combination of approaches, including both policy and practice change. Nemours served as the engine that brought this successful community initiative together by forging strong relationships with multi-sector partners to reach a shared goal, assessing available community resources, identifying gaps, creating continuous feedback loops with the community and leveraging financial resources to support the work, all critical roles that an integrator serves.[ii]

For example, Nemours, working closely with the Delaware Department of Education, assisted school districts in examining existing wellness policies, strengthening and revising these policies when needed and possible and implementing them at the school level. This effort emphasized two key strategies:

1. Focusing on district wellness policies to reach individual schools, taking advantage of the federal law requiring all districts participating in the National School Lunch Program to create local wellness policies; and
2. Supporting the Department of Education in implementing fitness measurements and physical activity pilot programs in individual schools to demonstrate how physical activity can be folded into the school day and the benefits of doing so.

As part of our work with the education sector, we also forged strong partnerships in the early learning community—a group that is often overlooked, despite being a setting where a significant number of young children spend the majority of their day. Nemours identified this gap and then worked to address it through developing a comprehensive approach including promoting policy changes in state licensing regulations to improve the quality of nutritional and physical activity standards in licensed and family child care that would impact 54,000 children in Delaware. A strong partnership with the state Child and Adult Care Food Program was instrumental in this work. We worked in partnership with early care and education training systems to support providers in implementing these standards, including offering technical assistance in structured learning sessions for child care providers that focused on healthy eating and physical activity.

From a public messaging perspective, a key area of focus for an integrator, we engaged community partners and supplemented our work through our '5-2-1-Almost None' prescription for a healthy lifestyle. This effort encourages children and families to adopt a daily prescription to eat at least five servings of fruits and vegetables, engage in no more than two hours of recreational time in front of a screen, participate in at least one hour of physical activity and consume almost no sugar-sweetened beverages. Nemours engaged multiple partners in different settings such as public parks in pursuit of a shared goal of promoting healthy eating and physical activity. For example, Nemours worked with the Delaware Parks and Recreation Department to offer healthier food options in park vending machines, helped communities institute community walk days and spread the 5-2-1-Almost None message to schools, child care centers, youth-serving and community-based organizations, and various levels of government throughout the state.

Another important role of an integrator is to facilitate the leveraging of financial resources. In 2011 Nemours hosted the first Outdoor Summit for Sussex County, which brought

together county and state officials, school district leaders and community leaders to strategize about how best to promote the need for their members and constituents to get 30 minutes of outdoor physical activity daily. Building from this work to convene and engage partners, that same year, the State of Delaware appropriated more than $7 million to improve Delaware's walking and biking trails, with an additional $13.25 million appropriated in 2012.

As a children's health system with a wealth of clinical resources at our disposal, Nemours leveraged data contained in our electronic health record system to establish a childhood obesity quality improvement initiative that not only alerts a doctor when a patient's Body Mass Index (BMI) is above the healthy weight range but also outlines appropriate follow-up and counseling for families. From 2007-2008, a significant first step was that the number of our providers noting BMI during a well care visit for children almost doubled.

As a complex problem linked to deeply-rooted societal patterns, childhood obesity is difficult to fight. Reversing the trends will take many years. However, Delaware is progressingiii: between 2006 and 2008-09, the overweight/ obesity rate for children ages 12-17 decreased from 41.4% in 2006 to 35.2% in 2008-09 and the overweight/obesity rate in Sussex County decreased from 40.2% in 2006 to 38.5% in 2008-09.iv And data from a new, statewide survey to be released in 2013 shows promising indicators, including positive trends in parental awareness of messaging, child behavior and other key areas of intervention. Delaware's demographics are comparable to those of many other states; progress in fighting childhood obesity here will provide the nation with important information in this long term battle.

Our obesity prevention work continues today, with an emphasis on applying the model we used with great success in Delaware to other states where preventable chronic diseases are taking a toll on the nation's children. This focus on spread and sustainability underpins our work as integrator. In 2012 Nemours and our partners, including the National Initiative for Children's Healthcare Quality, Child Care Aware of America, American Academy of Pediatrics and others, will implement evidence-based, practice-tested learning collaboratives in collaboration with local early care and education providers in Arizona, Florida, Indiana, Kansas, Missouri and New Jersey. Our goal is to help these providers adopt nutrition, breastfeeding support, physical activity and screen time policies and practices to improve the health of children under their care.

Nemours' commitment to building sustainable partnerships with a proven impact on population health left us well positioned to build on our childhood obesity prevention work by expanding to other health issues, most notably asthma. This expanded work is enabling us to further enhance and build on our role as an integrator, impacting the children and families we serve.

In Delaware, 11 percent of children have asthma, the sixth highest rate in the country. In addition, children under four are twice as likely to be hospitalized with asthma as any other age group and are four times as likely to have asthma-related hospitalizations as adults. To address this issue, Nemours created the 'Optimizing Health Outcomes for Children with Asthma in Delaware' project, with the goal of reducing asthma-related emergency department visits by 50 percent and asthma-related hospitalizations by 50 percent for all children in Delaware by 2015.

To achieve this, we are combining a pediatric primary care medical home model with a population health approach strategy to create healthier environments for children throughout the state. In addition to investing private funds, Nemours has leveraged federal funds from the Centers for Medicare and Medicaid Innovation to support our work as integrator. We are piloting our approach at three primary care sites, with an enhanced family-centered medical home model that brings subspecialty asthma care into the primary care setting. Through this approach, our patients will receive well-coordinated care from an interdisciplinary team of physicians, nurses, care coordinators, licensed mental health professional and community health workers (CHW). The CHWs will serve as patient navigators, who help individuals coordinate, access and manage multiple services and supports by connecting our patients with appropriate community-based services and providing case management of their non-medical needs. The CHWs will coordinate their work with community health liaisons, who partner with neighborhood leaders to develop infrastructure in schools, child care, housing and other systems to reduce asthma triggers and promote a healthier environment. This will enable a continuous feedback loop, whereby the insights gleaned from the navigator will inform the work of the integrator, with a goal of catalyzing population level change in the community.

At Nemours, our mission to improve the lives of children doesn't stop at the doors to our hospitals and clinics. Our commitment to helping children grow up healthy and reach their full potential drives us to consider all the ways we can help develop the next generation of kids in all the communities we serve. We see ourselves as shared guardians of children's health and leverage our more than seven decades of experience to mobilize and integrate communities in pursuit of an integrated approach to improved quality of care for kids, lower costs for the health care system, and ultimately better population health.

NOTES

i Nemours Health and Prevention Services. Delaware Survey of Children's Health. Newark, Delaware 2009.

ii Nemours. "Integrator Role and Functions in Population Health Improvement Initiatives." May 2, 2012. http://www.improvingpopulationhealth.org/Integrator%20role%20and%20functions_FINAL.pdf

iii Chang, Debbie I., Gertel-Rosenberg, Allison, Drayton, Vonna L., Schmidt, Shana and Angalet, Gwendoline B. "A Statewide Strategy to Battle Child Obesity in Delaware." Health Affairs. March/April 2010 — Volume 29, Number 3.

iii Nemours Health and Prevention Services. Delaware Survey of Children's Health. Newark, Delaware 2009.

c. IMPLEMENT THE NATIONAL PREVENTION STRATEGY

Current Status:

The ACA established a National Prevention, Health Promotion, and Public Health Council and an Advisory Group on Prevention, Health Promotion, and Integrative and Public Health, designed to provide coordination and leadership among 17 executive departments and agencies at the Federal level on prevention, wellness and health promotion practices through the public health system.

The Council, chaired by the Surgeon General, was created by Executive Order in June 2010.

The role of the council is to ensure federal health and prevention efforts are coordinated, aligned and championed; and to encourage partnerships to benefit all Americans among all levels of government, the private sector, philanthropic organizations, educational organizations community and faith-based organizations. The role of the Advisory Group is to offer recommendations to the members of the Council and advise them on effective, evidence-based prevention and health-promotion activities.

In June 2011, the Council released the National Prevention Strategy — a guide for the country to achieve, in the most effective way, improved health and well-being. The Strategy identified four Strategic Directions: 1) create, sustain and recognize communities that promote health and wellness through prevention; 2) ensure prevention-focused health care and community prevention efforts are available, integrated, and mutually reinforcing; 3) support people in making healthy choices; and 4) eliminate health disparities to improve the quality of life for all Americans. It also specified seven evidence-based priorities: 1) tobacco free living; 2) preventing drug abuse and excessive alcohol abuse; 3) healthy eating; 4) active living; 5) injury and violence free living; 6) reproductive and sexual health; and 7) mental and emotional well-being.

In June 2012, the Council released the National Prevention Council Action Plan, which builds from the vision, goal, recommendations, and actions of the landmark National Prevention Strategy. The Action Plan identifies commitments shared across all 17 departments and unique department actions being taken to further each of the Strategic Directions and Priorities of the National Prevention Strategy. The Council identified three shared commitments across the federal government: 1) identifying opportunities to consider prevention and health; 2) increasing tobacco-free environments; and 3) increasing access to healthy and affordable food.

Why The National Prevention Strategy Matters:

- Numerous factors outside the health care system — including housing, education, transportation, the availability of quality affordable food, and conditions in the workplace and the environment — often play a large role in public health so working across agencies to identify and develop reforms can have a major impact in improving the health of all Americans.
- If every federal agency focuses increased attention on prevention and health promotion, benefits will flow to the public's health and will help each agency fulfill its mission.

Recommendations:

- ▲ **Fully implement the National Prevention Strategy recommendations:** Each agency should implement the policy recommendations and actions identified as part of the National Prevention Strategy and National Prevention Council Action Plan. On-going leadership is needed to ensure effective implementation, and agency leaders must continue to work together to meet the goals they laid out.
- ▲ **Facilitate partnerships to meet agencies' goals:** The federal government should encourage partnerships among federal, state, tribal, local and territorial governments; business, industry and other private sector partners; health care systems, insurers and clinicians; early learning centers, schools, colleges and universities; community, nonprofit and faith-based organizations; and individuals to improve health through prevention.

HOW IT'S WORKING:

- **The U.S. Department of Housing and Urban Development (HUD) and HHS are working together to provide the approximately 2.1 million people who live in public housing with a healthy and safe living environment, including the option to live smoke-free.** Since 2009, HUD has strongly encouraged Public Housing Authorities to adopt smoke-free policies and, by 2011, at least 230 had adopted smoke-free policies for all or some of their buildings. HUD is working with HHS, the American Academy of Pediatrics and the American Lung Association to release a collection of resources for property owners, housing managers, landlords, resident organizations, and residents to help them create smoke-free environments. HUD and HHS are also collaborating with other partners to increase residents' access to proven tobacco cessation services.

- **North Carolina created the Healthy Environments Collaborative (HEC) — an interagency partnership between four state agencies (the state's departments of Health and Human Services, Transportation, Environment and Natural Resources, and Commerce) — whose mission is to integrate and align departmental efforts to improve the health of North Carolina's people, economy and environment.** The collaborative identified three key areas where all four departments could work together — data, comprehensive planning and research. In addition, the agencies are working together on initiatives to promote health in communities across the state. For example, all four agencies are working together to increase the number of communities across the state that include health considerations in their comprehensive plans. The agencies are also working together on the development of a Statewide Bicycle and Pedestrian Plan — the first of its kind in the nation.

RWJF AND THE FEDERAL RESERVE PARTNER FOR HEALTHY COMMUNITIES

Over the past two years, RWJF and various Federal Reserve Banks hosted multiple national and regional conferences and symposiums to forge partnerships and convene stakeholders to discuss health and community and economic development. These meetings joined leaders from community and economic development organizations, government, financial institutions, foundations, nonprofits and private-sector organizations to develop a community development plan in order to improve the health of neighborhoods, schools and workplaces.[67]

These forums have explored how a range of sectors have been overlapping and partnering in recent years with increasing knowledge that where people live, work, learn and play have a huge impact on overall health and well-being.

The Federal Reserve Bank of San Francisco and the Low Income Investment Fund published a book, *Investing in What Works for America's Communities*, based on issues raised during their symposium highlighting ways to build strong communities and promote health in places where people live, work and play, including policy, finance and education. In her essay featured in the book, Risa Lavizzo-Mourey, President and CEO of RWJF, highlights the importance of health inequalities and vulnerable populations. She focused on the need to address poverty and poor health together, rather than working to solve the problems in isolation.[68]

HEALTH IMPACT ASSESSMENTS (HIAS)

Health impact assessments (HIAs) can help policy makers evaluate the effects that new laws, regulations, projects and programs may have on health. This tool can help determine opportunities to adapt policies so they can meet their objectives while also helping to improve health while also avoiding unintended negative health consequences. For instance, factoring health into community development can help identify increased opportunities for safe, convenient recreation spaces and encourage walking, biking and other physical activity.

Health impact assessment:

- Looks at health from a broad perspective that considers social, economic and environmental influences;
- Brings community members, business interests and other stakeholders together, which can help build consensus;
- Acknowledges the trade-offs of choices under consideration and offers decision makers comprehensive information and practical recommendations to maximize health gains and minimize adverse effects;
- Puts health concerns in the context of other important factors when making a decision; and
- Considers whether certain impacts may affect vulnerable groups of people in different ways.[69]

Breaking the Link Between Unhealthy Housing and Unhealthy Children

By Ruth Ann Norton, Executive Director, Green & Healthy Homes Initiative™

American taxpayers lose hundreds of millions of dollars annually in medical bills, energy costs and lost wages due to inefficient and unhealthy housing and nearly six million households live with moderate to severe physical housing problems. These hazards increase the risk for illnesses and injuries including asthma, falls, respiratory problems and lead poisoning. Children and seniors in low-income housing are hardest hit by home-based environmental health hazards.

Extensive research by CDC, HUD, NIH, and others confirm that home-based environmental health hazards that trigger asthma episodes and cause home injury cannot be fixed in the doctor's office but must be remedied by taking the traditional health care system to the new frontier of prescriptive housing intervention services.

Currently severe home-triggered asthma attacks, which result in emergency room and hospital visits, are largely the domain of hospitals, which are somewhat powerless to actually stop these attacks from occurring. The hospitals treat the patient and then send him/her back to the same place that triggered the episode. It's a revolving cycle, during which millions of dollars are spent and few are spared from preventable negative health outcomes in the future.

Besides the physical health toll an unhealthy home can have on its inhabitants, the monetary costs are enormous. Total annual costs for housing related childhood environmental diseases are estimated to be $54.9 billion.[70] In addition, improving energy-efficiency provides financial relief to low-income families by cutting utility costs, better enabling them to meet basic needs, pay for much needed medications and invest in healthy housing maintenance. Families eligible for federal home energy assistance spend 20 percent of their income on energy bills — six times more than the national average.

Siloed and fragmented programs across all levels of government and the community undermine the ability of families, and the programs designed to serve them, to adequately address the high costs of unhealthy and energy inefficient housing. Without a coordinated assessment, intervention and investment strategy, residents with multiple housing deficiencies have to fill out countless applications and needlessly endure multiple home assessments. Far too often this scattered approach has left hundreds of thousands of homes unable to receive energy efficiency investments due to health and safety issues. These barriers leave the families most in need to be the least likely to receive necessary improvements and upgrades.

The Green & Healthy Homes Initiative™ (GHHI) was founded to address these glaring and costly gaps. GHHI, a national program designed to break the link between unhealthy housing and unhealthy children, utilizes a single stream education, assessment and intervention model to revolutionize health care service delivery, health-based housing intervention strategies, housing standards and intervention decision-making in the U.S.

Currently, GHHI is engaged at the ground level in 16 cities nationwide. In each site, GHHI works with local governments, nonprofits, and private sector entities to implement an integrated health, housing and energy efficiency platform that better aligns the multiple programs currently available to low-income residents. GHHI produces measureable results that demonstrate better service delivery and health outcomes for Medicaid and Medicare children and families and reduce long term costs for health care providers and CMS. In short, people get healthier and health care costs go down.

In Baltimore, one of our sites, we recently worked with the O'Bannon family. Dorothy O'Bannon and her two daughters, aged 4 and 13, lived in the home her family had owned for 40 years. Both girls were diagnosed with asthma, with the youngest daughter having been to the emergency room or hospitalized 13 times in the previous year due to severe asthma attacks, resulting in medical costs exceeding $53,000.

When Mrs. O'Bannon sought services to help her improve the conditions in her home that were exacerbating her daughters' illnesses, she was turned away by five different publicly funded programs before she was referred to GHHI. Because the problems in her home were so significant, none of the available programs could address the issues individually.

When GHHI performed a comprehensive assessment of her home, multiple issues were found, including: lead paint hazards; damaged roof causing leaks in many rooms throughout the home; mice and roach infestations; little or no insulation causing air leaks and drafty doors and windows and high utility costs; holes in the living room floor; defective plumbing causing mold and dampness. All of the hazards found in the O'Bannon home were causing excessive asthma episodes for the children.

GHHI aligned and coordinated intervention services from seven different federal, city and community programs and funding sources to address the health and safety hazards in the home, completing the work in just four days.[71] The scope of work included roof and floor repairs, lead and mold remediation, integrated pest management, window replacement, installation of foam insulation, and weather-stripping and other energy efficiency measures.

The repairs and improvements performed in the O'Bannon home have had a dramatic impact on the health and well-being of the family. Since the work was completed, neither child has returned to the emergency department nor the hospital with asthma-related illnesses and the girls have not missed school as a result of asthma either. In addition, Mrs. O'Bannon's gas usage to heat the home has been reduced by 27 percent. By coordinating the services, the work was completed in less than half the time it would otherwise take and the cost for all of the interventions was 28 percent lower than it would have been had all of the work been done independently.

Unfortunately, Mrs. O'Bannon's story is not unique. Thousands of families are faced with the same challenges and the same choices when it comes to improving their housing in order to improve their health.

GHHI was designed to serve families just like this all over the country. To date, more than 4,500 families have benefited from the integrated service model GHHI implements in local communities. Initial data shows similar results across the country as those experienced by the O'Bannon family, most notably:

- A 67 percent reduction in hospitalizations and emergency department visits for children with asthma episodes, saving taxpayer funds supporting Medicaid;
- Fewer missed school days, which improve academic performance and decrease parent's need to miss work; and
- 20 percent to 25 percent more efficient use of federal funds.

Innovative programs like GHHI provide key opportunities under for investments in primary prevention by hospitals and managed care organizations.

HEALTH IN MIND — RECOMMENDATIONS FOR IMPROVING HEALTH IN SCHOOLS

In 2012, the Healthy Schools Campaign and TFAH, with support from the W.K. Kellogg Foundation, issued a new report *Health in Mind*, which recommended ways to incorporate health and wellness into school culture and environment, which would benefit the health, well-being and education of the nation's students.

The report reviews the complex needs of health care for the nation's youth, including how chronic diseases among children are increasing and school environments often do not provide conditions that support health.[72] For instance, many students do not engage in physical activity during the day, which has been shown to increase school performance, or their school buildings lack healthy air and access to fresh water, nutritious food and/or a school nurse.[73] Also, many students come to school with one or more health problems that undermine their ability to focus in school or even attend — studies have repeatedly shown that children cannot reach their potential in school unless they are as healthy as can be.[74]

The *Health in Mind* report recommendations included:

- **Providing safe and healthy places to learn and play.** All students deserve access to a clean and safe environment with good air quality. Schools should provide students with nutritious meals and opportunities for physical activity and teach students about the importance of nutrition and activity.
- **Recognizing health as an integral part of excellence in education.** We must integrate health and wellness into the definition of a successful school and recognize the ways in which these elements support learning. As we evaluate school performance, we must acknowledge the role that health and wellness play in student achievement.

"The link between student health and student achievement is not theoretical—it is a fact." said Randi Weingarten, president of the ***American Federation of Teachers****. "Yes, there are many educational and academic issues that we need to address. But making schools better also means that we must create environments that provide steady support for health and good nutrition."*

"Our members work with students every day whose health and school conditions impede their ability to learn," said ***National Education Association*** *President Dennis Van Roekel. "That's why NEA members are taking the lead to advocate for school and learning conditions that result in a higher level of student engagement and fewer absences."*

- **Closing the achievement gap, eliminating health disparities.** Research shows that higher levels of achievement are often related to health—and that health problems are closely connected to hindered performance in school. Until we address the health disparities that many low-income minority students face, learning disparities will persist.
- **Ensuring access to needed health services at school.** Access to health services is necessary to ensure students are healthy and ready to learn. Making health services available at schools is an efficient and cost-effective way to reach the 52 million children who spend their days at school. Research shows that access to care—from a school nurse, for example—improves wellness and academic achievement.

North Carolina: Transportation, Commerce and Environment are Integral in Building Healthy Communities

By Ruth Petersen MD, MPH, Section Chief, Chronic Disease and Injury Section, N.C. Division of Public Health and Julie Hunkins, Manager, Quality Enhancement Unit, N.C. Department of Transportation

In 2006, the North Carolina Department of Health and Human Services (NCDHHS) convened a meeting of the state Departments of Transportation (NCDOT), Environment and Natural Resources (NCDENR), and Commerce to discuss the possibility of the four agencies working together on common goals where public health, the natural environment, economic prosperity, and the built environment (e.g., greenways, bike ways, roads, parks) intersect. The result of this conversation was the development of the Healthy Environments Collaborative (HEC), an interagency partnership whose mission is to integrate and align departmental efforts to improve the health of North Carolina's people, economy and environments.

When the HEC began meeting, partners focused on gaining an increased understanding of the work of each agency and where there were potential opportunities to work together to achieve common goals. Over the next couple of years, the HEC created a vision, mission and a strategic plan, and gained support from the Secretaries of the four state departments. In 2009, NCDHHS received Communities Putting Prevention to Work (CPPW) funding, through the American Reinvestment and Recovery Act (ARRA), to create more physical activity opportunities for North Carolinians by creating environments that support physical activity. With guidance from the University of North Carolina at Chapel Hill, Gillings School of Global Public Health, the HEC analyzed and prioritized the importance and feasibility of different activities that would support physical activity environments across the state. They also identified opportunities where they, as state agencies, could help remove obstacles that local governments face in their efforts to create physical activity environments.

Most recently the HEC held a strategic planning session and identified three key areas where all four departments could work together for mutual benefit: data, comprehensive planning and research. These key areas support current initiatives of all four agencies and provide an opportunity to undertake common efforts that align with the work that all agencies are already undertaking, which increases efficiency and use of resources. In addition to the collaborative efforts of the HEC, each agency now better understands and can support the efforts of other agencies. For example, NCDHHS was awarded Community Transformation Grant funding and is working very closely with NCDOT, NCDENR and Commerce to increase the number of communities across North Carolina that include health considerations in their comprehensive plans. NCDOT has included a health component in the development of its comprehensive Statewide Bicycle and Pedestrian Plan and is also working closely with NCDENR and Commerce to better connect biking and walking facilities to existing trails and provide active transportation options that enhance economic prosperity and promote a healthier workforce within the state. Commerce has added attributes, such as greenways, bike trails, and other recreational venues to its "Buildings and Sites" website as an offering

Healthy Communities and a Healthy Economy

Commerce has a web-based tool on its Access NC website containing information that allows prospective business and industry clients to search for specific attributes of buildings and sites available within the state. Going one step further, Commerce recently added health and quality of life attributes that can now promote the availability of sites with access to parks and recreation, greenways, pedestrian walkways, etc. Commerce believes that illustrating health and recreational access can be a major selling point in attracting and retaining businesses and talent.

North Carolina Healthy Communities CONTINUED

to local communities to further showcase available commercial buildings and industrial sites as "healthy worksites." The allowance of this information informs prospective relocating businesses that there is access to parks and recreation, greenways, pedestrian walkways, etc., that is readily available to their employees. NCDENR and NCDOT have partnered to work through environmental design issues that, in the past, have been problematic for greenway construction.

The HEC has led to the identification of opportunities where four state departments can work together and achieve mutual goals — even with different organizational missions. The agencies have learned that the state will not realize significant positive changes in public health unless they look at the built environment in concert with efforts on prevention and the treatment of chronic disease.

Health and Transportation

The NCDOTs mission is to connect people and places safely and efficiently with accountability and environmental sensitivity and to enhance the economy, health and well-being of North Carolina. NCDOT recognizes that the opportunity to increase physical activity, and therefore improve public health, lies in the department's concept of "active" or "healthy" transportation. It is reported that people who live walking distance to trails, paths or stores report higher amounts of walking than those who do not. NCDOT recognizes that active transportation is important to creating livable, vibrant and healthy communities and is working to affect policy and organizational change through several collaborative efforts.

One such collaborative effort, currently underway, is the development of the Statewide Bicycle and Pedestrian Plan. The plan will integrate public health considerations; demonstrate how active transportation contributes to a healthier workforce that can increase worker productivity and enhance North Carolina's recruitment/retention of businesses; and describe how biking and walking facilities can be co-located to provide enhanced access to conservation and green open space, as well as minimize overall impacts to the environment.

With regard to the transportation-related strategies, NCDOT recognizes that it will also have to be strategic to ensure the state is getting the best bang for the buck. For example, sidewalks, bike lanes and greenways cannot be put everywhere as funding is limited. This means that as NCDOT, state agency partners and local governments work together, they must understand what the community's needs are with regard to mobility, while also considering where facilities could have the most potential to create increased choices for physical activity for the most at-risk populations.

There has never been a comprehensive statewide bicycle and walking plan, anywhere in the nation, as wide reaching as one NCDOT is creating. As part of the plan's development, NCDOT is performing a Health Impact Assessment to articulate the benefits of integrating bicycling and walking intentionally into transportation policies and practices. The project, widely supported and funded by the Federal Highway Administration, Blue Cross Blue Shield of NC Foundation, Commerce, NCDENR, NCDHHS and others, has become a unique collaboration. When completed, the plan will reflect the linkages of active transportation, the economy, natural environment and public health. Going forward it will also help drive policy and decision making around bike and pedestrian transportation outcomes in local communities.

The Statewide Bicycle and Pedestrian Plan is one example of how NCDOT is collaborating with its partners to create the opportunity for improved health outcomes throughout North Carolina communities. North Carolina agencies will continue to engage others and work together toward common goals for healthy communities in order to more efficiently leverage resources and achieve goals related to mobility, public health, commerce, and environment and natural resources.

d. PROVIDE WORKPLACE WELLNESS PROGRAMS TO ALL AMERICAN WORKERS

Current Status:

More than 90 percent of large employers (200 or more workers) and more than 60 percent of smaller employers (3-199 workers) offer employees at least one wellness benefit, according to the 2012 Kaiser Family Foundation and Health Research and Education Trust annual survey of employer health benefits.[75] As of 2010, only 17 states offered a range of wellness programs to state employees.[76] Workplace wellness benefits and programs can vary dramatically in their scope and may or may not be based on proven, evidence-driven strategies. Examples of wellness benefits can include: tobacco cessation programs, lunch and learn sessions, obesity management and nutrition counseling, and online tools including health assessments and customizable tools to help with diet, nutrition and fitness.

The ACA expands employers' ability to reward employees who meet health status goals by participating in wellness programs up to 30 percent of employee benefit health costs in 2014. That means, employers can require employees who do not meet the goals to pay more for their employer-sponsored health coverage.

In 2011, CDC created the National Healthy Worksite Program, a $9 million, two-year program to help up to 100 small, mid-sized, and large businesses across the country set up and run evidence-based wellness programs. Each program participant will receive intensive support and expertise putting in place a combination of program, policy and environmental interventions to support physical activity, good nutrition and tobacco-use cessation. In addition, community participants will receive training and technical assistance as well as mentoring through peer relationships.[77]

Why Workplace Wellness Programs Matter:

- For every wellness dollar spent, studies have found, medical costs fall by about $3.27, and productivity increases, with absenteeism costs falling by about $2.37.[78]
- States provide health coverage for about seven million people, including 3.4 million state government employees and retirees, and their dependents and family members. Approximately eight percent of state health budgets go to state employee health.[79]
- Small businesses employ about half of the country's private sector workers and face growing health care costs and lost productivity related to obesity.[80]

Recommendations:

- ▲ **The Federal government should implement a comprehensive, evidence-based wellness program for all federal employees so that all government workers have access to wellness programs.** Federal workplaces should offer comprehensive wellness programs that can serve as a model for other governmental and private workplaces.
- ▲ **Every state and local government should offer a comprehensive, evidence-based wellness program.** State and local governments should provide strong wellness programs to their employees.
- ▲ **Providing wellness programs to teachers and other educators should be a high priority.** Research shows wellness programs for educators not only benefit the adult participants but also have shown success in engaging teachers in promoting increased physical activity and improved nutrition among their students.
- ▲ **States should make wellness programs a key component of their Health Insurance Exchanges.** Exchanges should be active purchasers and encourage or require all qualified health plans in an exchange to offer evidence-based wellness programs.
- ▲ **Private employers — regardless of their size — should provide effective, evidence-based wellness opportunities for their employees.** Businesses should partner with government, hospitals and community-based organizations to offer wellness programs. Federal, state and local governments should offer increased tax incentives and other assistance, including providing education about the benefits of wellness programs, to help small business wellness programs get off the ground. Insurance plans should also offer financial incentives to small businesses that offer wellness programs. Community-based organizations can collaborate with small businesses to increase opportunities to support physical activity and other programs, and local hospitals or health care providers can offer free health screenings and classes on health.

HOW IT'S WORKING:

- **Logistics Health Incorporated (LHI), in La-Crosse, Wisconsin, partnered with Riverside Corporate Wellness (RCW), to create a comprehensive wellness program with a clinical component, which has up to an 80 percent participation or activation rate, and has led 98 percent of LHI employees to feel that the company emphasizes wellness and 99 percent to rate LHI's wellness programming as good to excellent.** RCW created an on-location primary care clinic at no cost to LHI employees and their families that provides access to health promotion and primary care services. In order to ensure effective and safe sharing of health care records and professional staffing, RCW also engaged multiple corporate and community stakeholders in the implementation of its clinic. LHI has implemented policies that allow its employees to fully utilize the wellness services, including providing three hours of paid time per week to participate in sponsored wellness activities.
- **The YMCA in the Coulee Region of Wisconsin created partnerships to encourage local businesses to support employee wellness programs.** Partnering with Gundersen Lutheran Health System and Mayo Health Systems, the Y created a Well Workplace Toolkit and recognition breakfast that encourages business to launch programs, policies and projects to support employee wellness within the workplace. They have also partnered with a local vending company to increase healthy food options in workplace vending machines.

POTENTIAL SAVINGS THROUGH PREVENTION OF CHRONIC DISEASES AMONG CALIFORNIA PUBLIC EMPLOYEES' RETIREMENT SYSTEM (CALPERS) STATE ACTIVE MEMBERS

California has the nation's largest pooled public employee program, which combines state, local government and schools on one state employee health plan. In 2011, CalPERS spent close to $7 billion to purchase health benefits for the state of California and for local and government agency and school employees.[81] In an effort to estimate the burden of preventable chronic diseases among CalPERS State Active Members, the Urban Institute conducted an analysis of potential savings if several common preventable conditions were addressed

The analysis included hypertension and type 2 diabetes labeled as Cluster 1 conditions, and then added heart disease, stroke and renal disease, alone or combined with Cluster 1 conditions, and named them Cluster 2 conditions. The analysis evaluated over 2.5 million records of CalPERS State Active Members and dependants covered between 2004 and 2008 and calculated potential savings of Cluster 1 and 2 conditions that are preventable through changes in diet and physical activity.

Results showed that of the $1.6 billion spent in 2008 on State Active CalPERS members, $362 million—almost one-quarter of total spending, was attributable to preventable conditions from Cluster 1 and 2.[82] These estimates are considered conservative because they did not include any other diseases that could potentially be affected by interventions to improve diet, increase exercise and reduce smoking, and the analysis did not include costs associated with predisease or reducing the severity of conditions. Also, the cost estimates did not include any savings associated with improved productivity due to a healthier workforce. Estimates from the analysis suggest that a one percent reduction among State Active CalPERS members in common preventable conditions could save $3.6 million per year.[83]

The analysis was able to further break down spending based on gender, ethnicity, county, age and by department or agency and has the potential to inform CalPERS as they move forward in implementing future workplace wellness programs.

NEBRASKA'S INTEGRATED HEALTH PLAN

In 2009, the State of Nebraska launched a new integrated plan for health among state employees and their families. Prior to 2009, premiums had been increasing annually due to overutilization of health care services, poor preventive adherence, lack of attention towards early detection and continual escalation of premium rates. In response to increasing costs of health care the State developed a new wellness strategy known as wellnessoptions.[84]

State employees who qualify for the new health plan have lower premium costs, access to comprehensive preventive coverage and year-round wellness programs. In order to qualify, any employee or spouse needs to complete three steps on an annual basis: participants choose and enroll in their choice of a wellness program; participants complete a biometric screening option; and participants complete an online health assessment.[85]

A range of wellness programs are offered to enrolled State of Nebraska employees and their spouses, which include:[86]

- Walk This Way—a walking program where participants wear a pedometer and monitor their number of steps online;
- EMPOWERED Coaching: Lifestyle and Condition Management—participants work with a personal health coach to support healthy life changes related to physical activity, healthy eating, smoking cessation and stress management;
- NutriSum—an online weight management program;
- Cardio Log—an online tool allowing participants to track a variety of exercise workouts; and
- Biometric Screening—onsite and at home screenings are offered throughout the year.

Since the integration of Nebraska's new health plan, there have been significant improvements in some high risk areas. An analysis of health assessments from 2010 to 2011 found the following improvements:[87]

- 11.3 percent of those who were previously high risk for low levels of physical activity are now exercising more than two days per week.
- 7.7 percent who were previously high risk for low fruit and vegetable consumption are now eating more than three fruits and vegetables per day.
- Tobacco use among participants decreased from 9.3 percent to 7.8 percent.
- Those at high risk for depression decreased from 11.6 percent to 9.6 percent.

Along with health improvements, the State of Nebraska also saw a reduction of health care costs during the first two years of the program. When comparing wellness program participants' health costs to non-wellness participants, the State saw a reduction of $4.2 million in reduced medical and pharmacy claims. The return on investment for the program in the first two years found that for every $1.00 invested in wellness programs, $2.70 is returned in health care savings.[88]

Planting Health and Wellness Seeds: a Corporation's Mission to Help Their Employees, Clients and the Bottom Line

By Teresa Pulvermacher, MSN, NP-C, Director of Program Development/Operations Manager, Riverside Corporate Wellness

The mission of Logistics Health Incorporated (LHI), in La Crosse, Wisconsin, is to "take care of the people we serve through innovative health care solutions." This starts at the roots, their own employees, because without roots, branches do not flourish and sprout leaves.

Six years ago, Don Weber, founder and CEO of LHI, which helps their clients meet occupational health goals, began talking about planting the seeds of wellness and cultural landscaping to create a company-wide focus on health that could be transmitted to their clients.

Weber piloted small-scale health and wellness initiatives, i.e., the seeds, such as a wellness committee to get a feel for what employees might appreciate, influenza immunization programs and weekly wellness tips, which have sprouted into a health in all policies approach to decisions and client services.

LHI's offices are in the La Crosse Riverside Center, which is co-occupied by Riverside Corporate Wellness (RCW), an organization dedicated to promoting health and wellness through fitness, education programs and primary health.

Over the years, LHI has grown alongside their wellness partner, RCW, which has merged the pilot programs begun by Weber with an on-location primary care clinic at no cost to LHI employees and their families.

The primary objective of LHI and RCW is what forces a continual cultural shift towards a healthier, more balanced life. The goals are clear: improve employee health habits; develop and maintain a recognized corporate culture of wellness; develop and maintain the Corporate-Advance Wellness Home Model; and ensure sustainability. More simply put, LHI advanced wellness because employees are the corporation's most valuable resource — a healthy employee and family is happier and more productive.

The idea of merging an established and comprehensive wellness program with a clinical component is new and unique. The resulting services are specifically designed to meet employee and business needs—they are convenient, accessible and comprehensive. In a business community, this kind of care maximizes opportunities for preventive care and health promotion, while reducing unnecessary reliance on specialized, urgent and emergency care. The most important factor is convenience. If employees can have their health care needs met in less than one hour on a consistent basis, rather than having to use hours of personal time to visit a provider, their productivity, absenteeism and adherence to doctor/practitioner recommendations and health will improve.

LHI lives its company mission daily: always take care of the people they serve by providing innovative healthcare solutions that exceed expectations, are ethical and compassionate and fulfill the promises to employees, customers and communities. The combination of primary health services with a comprehensive wellness program, which includes frequent opportunities for health education, a readily accessible corporate fitness facility and specialized health risk programs, has transformed our sick care model into a true health care system, wherein we prevent disease from occurring rather than treating people after they become sick.

That said, it doesn't happen overnight or with a snap of the fingers. Lifestyles that are more healthcare cost-efficient, satisfying and balanced, and that lead to wellness and good health are difficult changes to initiate and/or maintain when financial resources are strained and other life issues take precedence.

So we try to make it as easy as possible for employees. For example, employees and their families can access no-cost health promotion and primary care services at the workplace. A visit to the onsite primary health clinic is no longer just a visit for a sore throat; but an opportunity to address lifestyle and health promotion. Finding time for physical activity is no longer a burden, but a cultural workplace norm: employees can take paid time away from their desks to go to the gym or take a fitness class.

In addition, primary care in the context of corporate wellness facilitates early detection and prevention of problems, even when there is not a heavy demand for such services involved in primary care. In every interaction with a health care provider, participation in wellness is carefully monitored and tracked. Extended visits to providers for traditional episodic care, and annual exams over an hour or longer, or even divided visits, afford the opportunity to address adherence to primary prevention strategies at all ages; well-infant and child exams; sports physicals; counseling on contraception, sexuality, drugs and alcohol for adolescents and young adults in the reproductive years; lifestyle management, nutrition and exercise in metabolic syndrome; and the prevention of diabetes and cancer. These visits provide time for assisted priority referrals to fitness coaching, alternative and integrative therapies, weight management, and tobacco cessation. Education regarding and access to recommended screening such as colonoscopy and mammography are coordinated and managed. Preventive care in this relaxed yet comprehensive environment has the potential to improve poor health, reduce risky behavior and address social and other determinants of health, as well as assisting parents in early childhood development.

Traditional health care often presents numerous obstacles to continuity, access and convenience that impact the corporation. For example, clinic schedules require frequent attendance, a heavy cost in time, travel expenses and lost wages, which ultimately affect a patient's motivation to visit the provider. These obstacles to care have been carefully considered in the scheduling of office visits at RCW Primary Health. To increase access and ensure a timely visit, we have taken a revolutionary approach. Visits to the provider can be scheduled over extended hours during the week with shortened waiting times. All clinic appointments are at a minimum of 30 minutes for episodic and acute care, and one hour for an annual exam, allowing the extra time for provider-member interaction and health education.

Our alternative, convenience-focused approach to appointments is working—serving a population of approximately 800 employees, the clinic has seen an average of 92 visits and nearly 80 unique members each week since its opening in February 2012. The model facilitates the improvement of the health of employees and their families, without any detriment to the operation or efficiency of the company. One employee recalls a recent visit to the onsite clinic: "My child was sick. I called, got in. I would have had to have taken four hours, if not the whole day off from work to have my child seen elsewhere."

RCW has also engaged multiple corporate and community stakeholders in the implementation of this model. This includes previously underused communication technologies to ensure confidential exchange of health information to all local health providers that Riverside Center employees know and trust. Health care providers using electronic medical records over protected data lines, unaffiliated with LHI human capital, deliver effective and safe care with tools like the electronic medical record support prescribing systems and clinical decision aids. RCW and contracted providers are committed to developing new policies and communication methods.

Community partners from local health systems and hospitals participate in the corporate model as contracted service providers that may include the professional staffing of nurse practitioners, physician assistants, behavioral health specialists, dietitians, purchasing, and clinical operations. All providers must support the practice model, mission and vision, and wellness philosophy of RCW and LHI. Third party providers also participate in information and data tracking technologies and other services essential to the operations such as cleaning, facility maintenance and laboratory services. There are tangible benefits to both the service and practice model providers.

The most unique component of the RCW and LHI comprehensive approach that has significantly affected workplace culture is compensated wellness time. As a matter of policy, LHI employees may use up to three hours of paid time per week to utilize all sponsored wellness activities. These hours do not incur overtime, and may be used in the corporate fully staffed fitness facility and personal training, or group exercise. Members may also attend educational lunches, tobacco cessation services, mobile screenings such as mammography, and appointment times in the clinic for themselves or a child. Employees may also participate in a supervised walking program, and a more independent yet highly structured running club. Additional paid time is allowed for attendance at an annual Health Expo, flu shot, and biometric screening event, and various community activities that fall under corporate sponsorship in the realm of social wellness, such as blood drives. These activities are carefully monitored and audited to maintain compliance with workplace rules and ensure accountability, while meeting business needs. Every hour is carefully tracked and categorized, and usage statistics are carefully maintained and detailed in a dashboard, which maintains data regarding biometrics, paid time off usage, worker's compensation, family medical leave, health care costs, days of hospitalization, sick days and unplanned paid time off.

Bottom Line

Routine culture audits, self-health reports and personal health assessment data, along with detailed dashboard data, allow RCW to draw significant conclusions about the health and wellness initiatives. Trending indicates that employees have improved or greatly improved participation in physical activity and lipid and glucose levels have normalized or remained normal for a significant portion of the population. We have also seen impact on the overweight population with a decrease in BMI for those with BMI in the 26 to 30 range. In addition, tobacco use is decreasing. Perhaps the most important cultural indicator is that ninety eight percent of LHI employees feel that LHI emphasizes wellness, and ninety nine percent rate wellness programming as good to excellent, with a participation or activation rate of up to eighty percent.

CEO Don Weber is often quoted speaking eloquently about the cultural impact of wellness on not only the employee, but the family as well. "My dream is that every employee will be motivated by our corporate culture of wellness, and become a stronger and healthier part of the LHI family. In turn, I hope that our employees take that culture of wellness home with them at the end of the day and infuse it into their family lives. Healthy employees create healthier families, and ultimately, a healthier community for us all."

At RCW and LHI, we practice the 100/0 rule that Dr. John Izzo, a behavior change consultant, proposes as a business principle—and apply it to health and wellness—one hundred percent responsibility, zero excuses. Excuses to not participate in wellness or health promotion and disease prevention activity may be legitimate, but when an employee of LHI takes one hundred percent responsibility, excuses are no longer useful—and the cycle of inaction is broken. It is a very strong business concept that translates very well into wellness. The 100/0 rule can work to positively change everything—from health to personal relationships and business practices. RCW, LHI and Don Weber have taken responsibility for their employees at a level rarely seen in the corporate world and it has benefited employees, their family, the community and the bottom line.

The Y Collaborating for a Stronger, Healthier and Happier Coulee Region

By Bill Soper, YMCA CEO La Crosse Area Family YMCA

A stronger, healthier and happier Coulee Region starts with activities that keep residents active and engaged. We know that by removing barriers to unhealthy lifestyles, we can reduce conditions such as obesity and diabetes that are plaguing our neighbors and driving up the cost of health care. In addition, the epidemic of physical inactivity and poor nutrition leads to chronic health problems like heart disease, stroke, diabetes and cancer.

Our YMCA, through the Pioneering Healthier Communities (PHC) and many other initiatives is committed to improving the health and well-being of our community, both inside and outside the walls of the YMCA. We have been successful with our many community partners in combating the unhealthy lifestyles by implanting policies, projects and programs that make the healthy choice the easy choice where we live, learn, work and play.

In the fall of 2007 our YMCA was selected by the YMCA of the USA to be a PHC YMCA. PHC is a partnership between the YMCA of the USA, local Y's, local businesses, local government and local organizations and CDC. This work provided the opportunity to bring community leaders together so collaboratively we could improve the health and well being of our community. Our success with the PHC initiative provided the platform to launch many other community focused health and well-being efforts.

Where We Play

For years, YMCAs have focused on curbing physical inactivity. In fact, we've found that a love of play at any age can really improve the health and wellbeing of kids of all ages and, by extension, our county.

Three years ago we launched a program in partnership with YMCA of the USA called Press Play. Press Play is a free 8-week program designed to re-engage empty nester adults ages 45-60 in physical activity. Our Press Play opportunities have included basketball, dance, fitness classes, group exercise classes and nutrition.

Two years ago we brought the CDC-led National Diabetes Prevention Program to our community. The program helps those at high risk of developing Type 2 Diabetes adopt and maintain healthy lifestyles by eating healthier, increasing physical activity and losing a modest amount of weight in order to reduce their chances of developing the disease. Since April 2011, 100 individuals have enrolled in the YMCA's Diabetes Prevention Program at the La Crosse Area Family YMCA.

At age 82, Dee Hutzler started exercising, lifting weights and changing her eating habits as part of the Diabetes Prevention Program. She joined the program when it was offered for the first time in April and lost 20 pounds during the first 16 weeks. She kept it off, even losing an additional five pounds during the maintenance period of the program. "I am a lot healthier, and I feel stronger," Dee says. "I move a lot better and I am making better choices when it comes to eating. I just didn't want to be diabetic, and when I heard about the program, I was really interested in it." Dee's story, as remarkable as it is, is a common occurrence among many participants of the YMCA's Diabetes Prevention Program since its launch in April, 2011.

In addition, we built community gardens adjacent to our Community Teen Center and the childcare center at our North YMCA. We host garden tours for other childcare centers to help bring gardens to the rest of the community. All of the produce from our Y North garden is incorporated into snacks or provided to Y members.

To reach younger populations, each year, through grant funding and a partnership with the Safe Kids coalition of the Coulee Region, the YMCA offers free swimming lessons. This year,

over 130 youth between the ages of 6-14 spent a week in YMCA pools learning how to swim and be safe in the water.

Where We Learn

Healthier children and adolescents make healthier adults. It's that simple. It's far easier to educate younger people on healthy choices than curb entrenched lifestyle decisions in middle-age. To ensure our children have the brightest future possible, we need to make sure they are as healthy as they can be.

One year ago we launched a partnership with the school district of Onalaska to manage their employee and student wellness programs. A "Community Wellness Director" spends half their time working with the district wellness team, the staff and the students within the district focused on improved well-being through behavior change. We have established a school garden at La Crosse's Franklin Elementary School. In addition, we have worked to incorporate farm-to-school curricula into the child care center and bring local fresh fruits and vegetables into school lunch menus.

We have also transformed menus throughout the Y to include fresh fruits and vegetables for all children. This includes menu changes in our full time childcare center, our school age programs, summer school programs and at our community teen center. In fact, all 900 enrolled school age child care receive a fresh fruit or vegetable daily.

To further educate children on the importance of a balanced diet, we are incorporating the 5210 curriculum into all Y youth programs: five fruits or vegetables daily, less than two hours of screen time, one hour of physical activity and zero sugary sweetened drinks daily. Slowly, we are seeing water become the drink of choice.

Where We Work

People spend a lot of time at work. Unfortunately most of that time is sitting or, if they are moving back and forth, it's usually to go to and from the vending machine. To truly affect a population change, we have to reach people where they are spending most of their time.

So, we partnered with a local vending company, Stansfield Vending, on Wellness Warriors, a program focused on increasing the amount of healthy food options in their vending machines. The healthy options are sold at a lower price point and the less healthy food items are at a higher price point. With the help of PHC, Wellness Warriors has been introduced to several local businesses. Additionally, Stansfield Vending launched another program countywide where for every piece of fresh fruit that is sold in their vending machines, they donate one piece of fresh fruit to the Ys School Age Child Care program.

Through our PHC partners (Gundersen Lutheran Health System & Mayo Health Systems), we created a Well Workplace Toolkit and recognition breakfast designed to encourage businesses to launch programs, policies and projects to support employee wellness within the workplace. We have also contracted with a large La Crosse employer, Inland Market and Labeling, to work with their wellness team to improve the well-being of their employees through behavior change efforts.

Where We Live

The majority of our programs and initiatives are created to make it easier for people to make the healthy choice where they live. We have gone beyond our community center and delivered produce to schools, healthy vending options to workplaces and physical activity options to neighborhoods.

Our PHC team recently brought together the leadership of local community gardens to have a conversation designed to bring efficiencies to the distribution of fruits and vegetables from these gardens. While we're in the early stages of this effort, ultimately it should improve access and distribution of fresh produce.

In addition, in partnership with local businesses and the County of La Crosse, we have installed nearly 60 bike racks in the La Crosse community. The bike racks are located primarily downtown and help encourage the community to ride to town on bikes, not in cars.

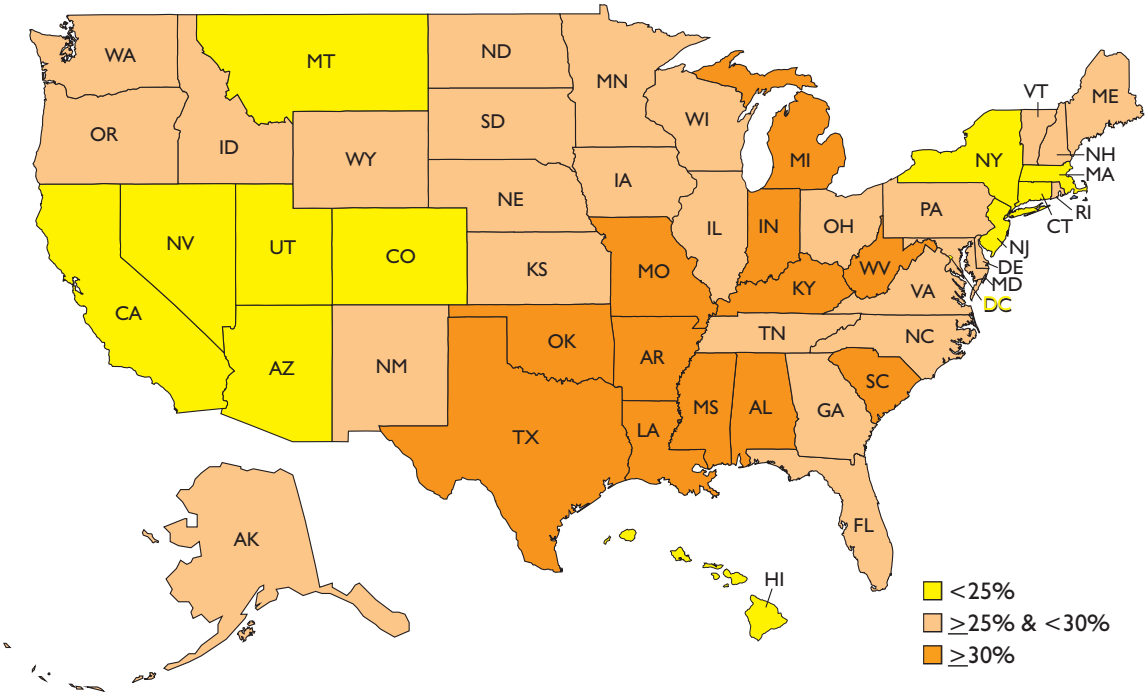
VERY LOW SODIUM
Nutrition Facts
Serving Size 1 Can

Ten Trust for America's Health (TFAH) Priority Initiatives

The following section highlights recommendations from TFAH's on-going initiatives and projects. TFAH issues a series of policy reports each year to bring attention to some of the nation's most serious public health problems.

1. REVERSING THE OBESITY EPIDEMIC

2011 Obesity Rates



Current Status:

More than two-thirds (68 percent) of Americans are obese or overweight.[89] According to a national survey, adult obesity rates have more than doubled — from 15 percent in 1980 to 35 percent in 2010.[90,91] Approximately 23 million U.S. children are obese or overweight.[92] Rates of childhood obesity have more than tripled since 1980.[93]

As obesity rates rise, the risk of developing obesity-related health problems — type 2 diabetes, coronary heart disease and stroke, hypertension, arthritis and obesity-related cancer — increases exponentially.[94] Twenty years ago, only 7.8 million Americans had been diagnosed with diabetes, and today, approximately 25.8 million Americans have diabetes.[95] More than 75 percent of hypertension cases can be attributed to obesity.[96] And, approximately one-third of cancer deaths are linked to obesity or lack of physical activity.[97]

Currently, the medical cost of adult obesity is estimated to range from $147 billion to nearly $210 billion per year.[98] Obesity-related job absenteeism costs $4.3 billion annually.[99]

Why Reversing the Obesity Epidemic Matters:

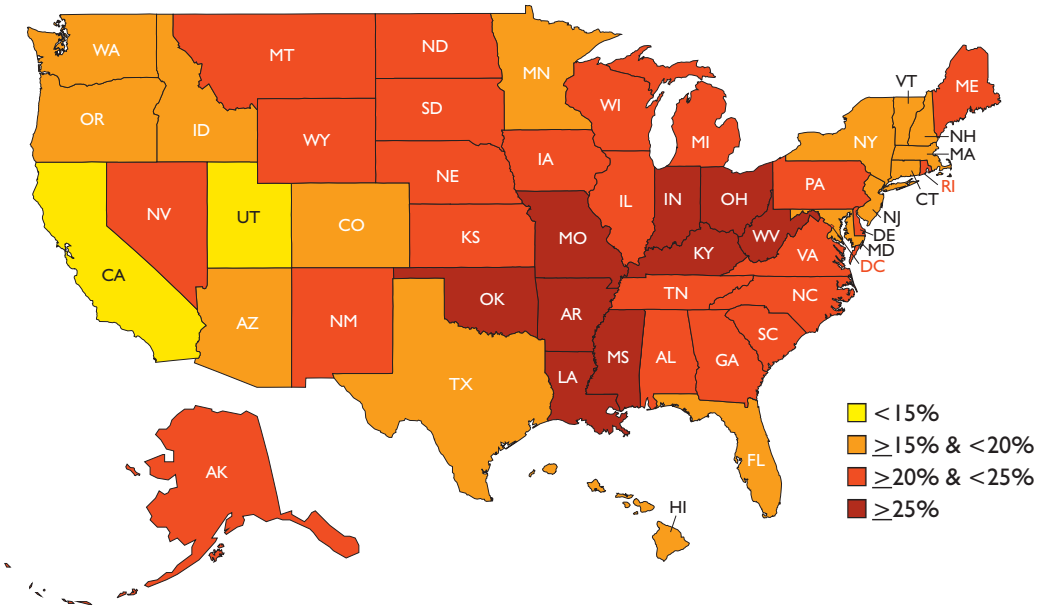
- By 2030, combined medical costs associated with treating preventable obesity-related diseases are estimated to increase by between $48 billion and $66 billion per year and the loss in economic productivity could be between $390 billion and $580 billion annually.[100]
- If obesity rates continue on their current trajectory, it's estimated that: obesity rates for adults could reach or exceed 44 percent in every state and exceed 60 percent in 13 states; the number of new cases of type 2 diabetes, coronary heart disease and stroke, hypertension and arthritis could increase 10 times between 2010 and 2020 and double again by 2030; and obesity-related health care costs could increase by more than 10 percent in 43 states and by more than 20 percent in nine states.[101]
- If obesity trends are lowered by reducing the average adult BMI by only five percent in each state, millions of Americans could be spared from serious health problems and billions of dollars in health spending could be saved — between 6.5 percent and 7.8 percent in costs in almost every state.[102]

Recommendations:

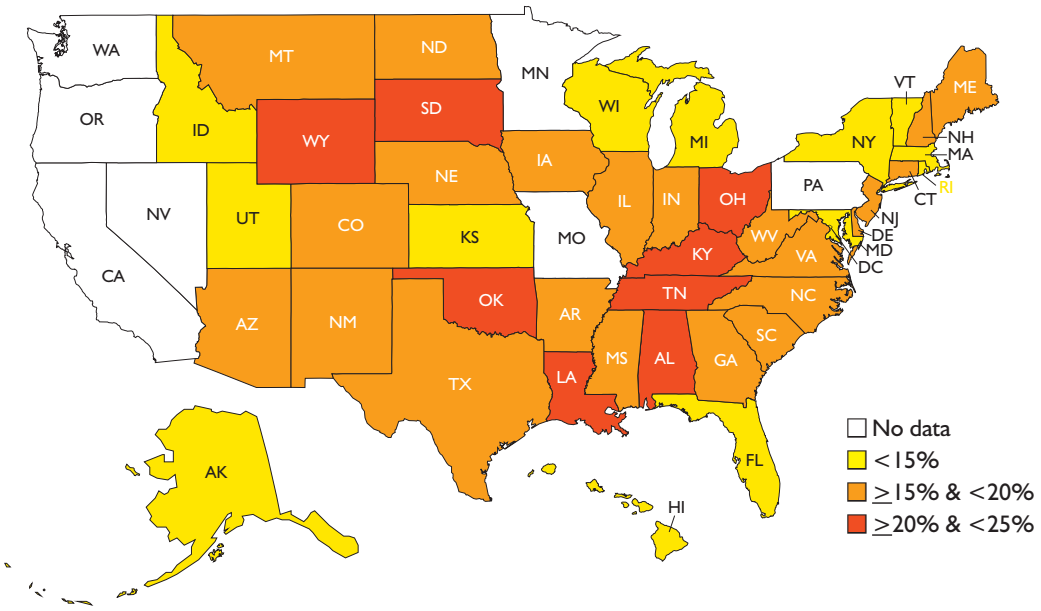
- **Protect and sustain investments in obesity prevention:** Federal, state and local programs to prevent obesity should be maintained. In particular, the Prevention and Public Health Fund — including CTGs which help communities around the country to invest in proven strategies to improve health, including reducing the rate of obesity through nutrition and physical activity interventions — should be preserved.
- **Fully implement nutrition and physical activity policies identified in the National Prevention Strategy and Action Plan:** The National Prevention Strategy is the nation's first comprehensive action plan for improving the health of all Americans. Created and released by the National Prevention Council (comprised of representatives from 17 different federal departments and agencies), it includes an emphasis on improving nutrition and creating additional, safe opportunities to support physical activity, such as by increasing the availability of affordable healthy foods and promoting safe sidewalks and parks and healthy housing.
- **Continue to carry out the provisions of the Healthy, Hunger-Free Kids Act, including ongoing implementation of school meal standards and upcoming updates to nutrition standards for competitive foods and child care:** Schools across the country are implementing USDA's finalized regulations updating school meal standards. USDA must ensure that full implementation for school meal standards continues as scheduled, along with providing adequate training and technical assistance. In addition, USDA has yet to issue regulations to update standards for competitive foods (foods and beverages sold outside of the school meal programs, such as those served in a la carte lines, in vending machines and school stores); and for meals and snacks provided as part of the Child and Adult Food Program that serves more than 3 million lower-income infants, children and impaired older adults.
- **Fully support healthy nutrition in other federal nutrition assistance programs:** In addition to school meal and child care programs, every effort should be made to maintain and strengthen other important nutrition safety net programs, such as the Supplemental Nutrition Assistance Program (SNAP), SNAP-Nutrition Education, the Emergency Food Assistance Program, the Fresh Fruit and Vegetable Program, and the Healthy Food Financing Initiative.
- **Expand opportunities to promote nutrition and physical activity during and outside of the school day:** Federal health and education policies and grants should provide increased incentives and support for physical activity and nutrition. For example, the next reauthorization of the Elementary and Secondary Education Act (ESEA) should include provisions to: evaluate school progress in meeting national physical education and activity standards; expand the Carol M. White Physical Education Program, which provides grants to states; and authorize School Improvement Grant funding to be used for encouraging school environments that foster physical and nutritional health. Moreover, transportation funding should include a strong active transportation component to promote pedestrian and bicycle friendly initiatives.
- **Enhance efforts to limit unhealthy food marketing aimed at children:** The Interagency Working Group of Food Marketed to Children issued a set of proposed voluntary principles to help guide industry efforts to improve the nutritional profile of foods marketed to children. These guidelines should be finalized. Until then, food and beverage companies should work together with scientific, public health and consumer groups to strengthen industry standards on their own.
- **Finalize comprehensive menu and vending labeling regulations:** FDA should finalize the menu and vending labeling provisions of the Affordable Care Act to help provide consistent nutrition facts about foods and beverages sold in chain restaurants, grocery and convenience stores, movie theaters and vending machines.

2. PREVENTING TOBACCO USE AND EXPOSURE

2011 Adult Smoking Rates by State (BRFSS)



2011 High School Smoking Rates by State (YRBS)



Current Status:

Cigarette smoking is the leading cause of preventable death in the United States, killing more people than alcohol, AIDS, car accidents, illegal drugs, murders and suicides combined.[103] In the U.S., approximately 400,000 people die from smoking and 50,000 adult nonsmokers die from exposure to secondhand smoke each year.[104] In addition, there are six million children under 18 alive today who will ultimately die from smoking.[1035]

An estimated 43.8 million people, or 19 percent of all adults (aged 18 years or older), in the United States smoke cigarettes.[106] In 2010, tobacco companies spent $8.5 billion — nearly $1 million every hour — to market cigarettes and smokeless tobacco products.[107]

Federal and state government Medicaid smoking-related payments are $30.9 billion, annually, while taxpayers' yearly burden from smoking-caused government spending is $70.7 billion or $616 per household.[108]

As states have cut funding to their tobacco control programs, the rate of decline in youth tobacco use has slowed noticeably.[109]

Why Preventing Tobacco Use and Exposure Matters:

- Every year, smoking requires $96 billion in public and private health care expenditures.[110]
- Productivity losses caused by smoking each year reach nearly $100 billion.[111]
- Smoking harms nearly every organ of the body. Smoking is a known cause of cancer of the lung, larynx, oral cavity, bladder, pancreas, uterus, cervix, kidney, stomach and esophagus. It also causes heart disease and lung disease such as emphysema and bronchitis. [112]
- The risk of developing lung cancer is about 23 times higher among men who smoke cigarettes and about 13 times higher among women who smoke cigarettes, compared with never smokers.[113] Cigarette smoking approximately doubles a person's risk for stroke.[114] Nonsmokers who are exposed to secondhand smoke increase their heart disease risk by 25 percent to 30 percent and their lung cancer risk by 20 percent to 30 percent.[115]

Recommendations:

- **Sustain investments in tobacco prevention and cessation programs:** Federal, state and local funding for preventing tobacco use and tobacco cessation should be preserved, including protecting the Prevention Fund and CTGs, which enable communities around the country to invest in proven strategies to improve health, including through the reduction of tobacco use. These funds should also support continuation and expansion of the CDC's media campaign to reduce tobacco use.
- **Ensure health insurance coverage for tobacco cessation treatments:** The Affordable Care Act requires all new private health insurance plans to cover recommended preventive health services, including tobacco cessation, with no cost-sharing. However, many insurers are failing to provide this coverage and HHS and the states should give detailed guidance on what cessation coverage is required under the Act.
- **Effectively implement the FDA's new authority over tobacco products:** The FDA must continue to effectively implement the new authority over tobacco products that it received under the 2009 Family Smoking Prevention and Tobacco Control Act. Priorities should include assertion of jurisdiction over all tobacco products; a rigorous review of new tobacco products; and continued legal defense of the graphic cigarette warning labels required by the 2009 law.
- **Support tobacco-free environments and policies:** More and more states and localities are passing smoke-free laws that protect everyone's right to breathe clean air — free from harmful secondhand smoke. People should have access to workplaces, parks, schools and other public areas that are tobacco free. Tobacco-free policies recommended in the National Prevention Strategy should be expeditiously implemented, including ensuring smoke-free policies in and around all federal buildings and properties including military bases.

3. ENCOURAGING HEALTHY AGING

Current Status:

By 2030, 20 percent of the U.S. population — 71 million Americans — will be 65 or older. Aging-related diseases are projected to increase the country's health care costs by 25 percent during this time period.[116]

Eighty percent of America's seniors live with at least one chronic disease that could lead to premature death or disability.[117] For example, current estimates for the prevalence of Alzheimer's disease range from 2.6 million to 5.2 million Americans. There is growing evidence that Alzheimer's disease can be prevented or delayed through healthy lifestyles, physical activity and stimulating the brain by reading and staying socially active. If present trends continue, by 2050, as many as 16 million Americans may be living with Alzheimer's disease.[118] The total costs for health care, long-term care and hospice associated with Alzheimer's and other dementias are projected to increase from $183 billion in 2011 to $1.1 trillion in 2050 (in 2011 dollars).[119]

Furthermore, each year, one-third of seniors experience falls, resulting in more than 2 million injuries, 650,000 hospitalizations, and 20,000 deaths.[120] The financial costs associated with accidental falls by seniors are expected to increase as the population ages and may reach $54.9 billion by 2020.[121]

Why Encouraging Healthy Aging Matters:

- According to CDC, many cases of chronic illnesses, particularly heart disease, stroke, diabetes, and some forms of cancer, could be avoided or delayed with healthy lifestyle practices, such as regular physical activity, healthy eating, and avoiding tobacco use, and through screenings for early detection of cancer and other diseases.[122]
- Medicare expenditures increased significantly faster among overweight and obese beneficiaries compared to normal weight beneficiaries in recent years. While expenditures increased among all groups, expenditures increased by a mean of $122 per year for normal-weight beneficiaries, $230 per year for overweight beneficiaries and $271 per year for obese beneficiaries.[123]
- A recent study found that despite government recommendations, close to one-third of Americans aged 65 and over did not receive a flu shot in 2009, and over one-third reported not ever receiving a pneumococcal vaccination.[124]

Recommendations:

- **Educate seniors and their health providers on the importance of preventive care:** Health care providers, insurers, community organizations, employers and government officials should provide seniors with increased information about the importance of lifestyle changes, such as those related to diet and physical activity, and the importance of getting routine screenings and physicals for early diagnosis and treatment of health conditions. CMS should educate providers and beneficiaries about the new clinical prevention benefits included as part of the ACA.
- **Make sure seniors are informed about their Medicare prevention benefits:** Medicare should more actively and widely disseminate information about the range of prevention benefits available, including preventive screenings for heart disease, diabetes, and many other chronic conditions, as well as vaccinations for shingles, flu and pneumonia.
- **Fully fund the pilot project to provide public health interventions to the pre-Medicare population:** The Healthy Aging, Living Well pilot program authorized under the Affordable Care Act should be fully funded. The pilot project would provide public health community interventions, screenings, and, when necessary, clinical referrals for individuals between 55 years to 64 years of age.
- **Prioritize vaccinating seniors for flu and pneumonia:** Health departments should strive to achieve the national goals of vaccinating 90 percent or more of seniors for flu and pneumonia.
- **Increase resources for research:** The federal government should increase funding for the National Institute on Aging and the research efforts at the National Institutes of Health that investigate causes and cures of aging-related chronic conditions, including neurological diseases such as Alzheimer's disease and dementia.

ALTARUM INSTITUTE RECOMMENDATIONS TO PROMOTE HEALTH AND WELL-BEING AMONG BABY BOOMERS AND SENIORS

Altarum Institute compiled recommendations of top prevention strategies for Baby Boomers and seniors, helping Americans age as well and independently as possible.

High-impact recommendations targeted to help Boomers included:

1. **Accelerate the Implementation, Spread and Scale-Up of Proven Community-Based Prevention Programs.** In order to be successful, community-based prevention programs need to be adequately funded and local leaders need incentives, as well as education and training to fully utilize the programs. Funds also need to be invested to support research, evaluations and analyses of interventions in order to effectively tailor programs to each community. A range of programs have been proven to be effective in improving health outcomes over time:
   - Group Lifestyle Balance is a comprehensive behavior change program to prevent diabetes and the metabolic syndrome through healthy eating and physical activity.[125]
   - Coordinated Approach to Child Health (CATCH) Healthy Habits is an intergenerational physical activity and nutrition program using evidence-based curriculum.[126]
2. **Enhance Knowledge and Adoption of Chronic Disease Self-Management Programs.** There are opportunities to prevent chronic diseases from worsening and assist Boomers in understanding and coping with these conditions. Investments in self-management best practices research should be made to develop more effective interventions. Stakeholders across medical and nonmedical organizations, including health care and aging services providers, public health departments, employers and advocacy groups, must collaborate in order to align efforts to maximize use of self-management practices.
3. **Promote the Adoption of Evidence-Based Workplace Wellness Initiatives.** With mixed evidence on the outcomes and effectiveness of workplace wellness programs, Altarum Institute recommends that policymakers establish a database with information and evidence from prospective, on-going and completed studies in order to bolster information on workplace wellness programs and best practices.
4. **Support Public Education and Community-Based Initiatives That Encourage Planning for Old Age.** Policymakers should develop new, as well as strengthen existing, educational resources to help Boomers with long-term planning. For example, the National Clearinghouse for Long-Term Care Information provides a range of resources for individuals and families and the Own Your Future Awareness Campaign is a federal-state effort to increase knowledge about long-term care planning. A few community-based interventions have also shown to be effective in promoting long-term planning:
   - The Respecting Choices program provides training and support to help communities include advance care planning as an on-going process between individuals, families and caregivers.[127]
   - Physicians Orders for Life-Sustaining Treatment is an advance care planning tool that helps translate patient goals and preferences into his or her long-term care plan.[128]

The recommendations targeted to help seniors included:

5. **Increase Support for Policies and Programs Aimed at Preventing Falls Among Older Adults.** Increasing support for policies and programs aimed at preventing falls can be accomplished through a variety of ways including increasing funding for community-based falls prevention programs; integrating falls prevention strategies into existing senior outreach services such as Meals on Wheels; and incorporating falls prevention into the U.S. Department of Housing and Urban Development procedures. Many successful evidenced-based falls prevention programs exist:
   - FallProof is a group-based program that targets older adults before they fall, but are starting to experience balance-related problems.[129]
   - Matter of Balance helps to reduce fear of falling and increase activity levels.[130]
6. **Enhance Opportunities for Physical Activity Among Older Adults.** Altarum Institute recommends that policymakers implement policies and strategies to support active living for seniors, which can be accomplished by addressing barriers that prevent seniors from participating in physical activity; ramping up

education and outreach efforts; and promoting community-based physical activity programs. A range of successful programs to increase physical activity among Boomers and seniors have already shown positive results:

- Active Choices includes a trained activity coach who helps develop an individualized exercise plan, provides phone support, monitors progress and offers exercise tips and information.[131]
  - EnhanceFitness and EnhanceWellness certified instructors lead participants in warm-ups, aerobics, cool downs, strength training and balance exercises.[132]
  - Strong for Life is a home-based exercise routine to improve strength, function and balance among older adults.[133]
  - Active Living Every Day is offered in settings such as worksites, hospitals and retirement communities to engage individuals with sedentary lifestyles.[134]
  - Fit & Strong! targets older adults with osteoarthritis to help improve function and physical activity, reduce pain and increase self-efficacy.[135]

7. **Promote Healthy Diet and Nutrition Among Older Adults.** Improving diet and nutrition among older adults can be achieved through home-delivered meal services such as Meals on Wheels; nutrition education programs that promote the use of multivitamins and nutritional drink supplements; and increasing support for programs like Supplemental Nutrition Assistance Program (SNAP) to supplement the diets of older adults. Increasing awareness of the following community-based programs has the potential to help promote healthy diet and nutrition among older adults:
   - Healthy Eating for Successful Living educates seniors about nutrition and lifestyle changes to promote health and prevent chronic diseases.[136]
   - Senior Farmers' Market Nutrition Program provides low-income seniors with coupons for healthy foods at farmers' markets, roadside stands and community agriculture programs.[137]
   - Eat Smart, Live Strong aims to improve fruit and vegetable consumption and physical activity among adults 60 to 74 who are eligible for USDA Food and Nutrition Service assistance programs.

8. **Promote Primary and Secondary Prevention of Depression Among Older Adults.** Although screening for depression already exists as part of Medicare, Medicare should monitor and evaluate the effectiveness of the current system and the tools that practitioners are using. A range of proven programs and services currently exist and should be disseminated more widely, accompanied by a campaign communicating the implications of depression among older adults. Secondary prevention programs have proven effective in reducing depression and related symptoms among older adults.
   - Program to Encourage Active Rewarding Lives for Seniors (PEARLS) teaches depression management skills through in-home counseling sessions.[138]
   - Healthy Identifying Depression, Empowering Activities for Seniors (IDEAS) aims to reduce depressive symptoms in older adults with chronic health conditions and functional limitations.[139]

9. **Increase Affordable and Accessible Housing Options for Older Adults.** Federally subsidized housing for seniors needs to meet the current need, and further expansion should be considered to plan for growing needs. Policymakers should explore new and existing models that combine housing and supportive services for seniors such as Naturally Occurring Retirement Communities, "Village" models,[140] and Continuing Care Retirement Communities. Programs that connect older adults with available benefit programs should be supported such as the National Council on Aging's Economic Security Initiative and BenefitsCheckUp, which offer tools to improve the economic security of lower-income older adults.

A final recommendation is important for both Boomers and seniors:

10. **Support the Creation of Healthy Communities for People of All Ages and Abilities.** Our environment—including our homes, schools, businesses, parks, and roads—can play an important role in our health and well-being. Policymakers should consider laws, policies and programs to encourage communities that are "livable," "lifelong," "age-friendly," "sustainable," and "intergenerational." Efforts should be evaluated to identify promising practices that pave the way for healthy environments that meet the needs of all residents.

4. IMPROVING THE HEALTH OF LOW-INCOME AND MINORITY COMMUNITIES

Current Status:

Low-income and minority communities have higher rates of obesity, asthma, diabetes, infant mortality and other preventable diseases. According to the Health Policy Institute at the Joint Center for Political and Economic Studies, African Americans and other racial and ethnic minorities experience poorer health relative to national averages from birth to death — in the form of higher infant mortality, higher rates of disease and disability, and shortened life expectancy.[141] Forty-eight percent of black adults suffer from chronic disease, compared with 39 percent of the general population.[142]

Obesity correlates strongly with economics: more than 33 percent of adults who earn less than $15,000 per year were obese, compared with 24.6 percent of those who earned at least $50,000 per year.[143] Adult obesity rates for blacks are at or above 30 percent in 34 states and D.C. The rates exceed 40 percent in 10 states. Meanwhile, adult obesity rates for Latinos are at or above 30 percent in 19 states.[144]

Black children and low-income children are more likely to have asthma than white or Latino children and children from higher-income families, and are more likely to have suffered acute asthma attacks.[145] Nearly 15 percent of blacks and 14 percent of Latinos have been diagnosed with diabetes compared to 8 percent of whites.[146]

Large disparities in infant mortality rates persist. Infants born to black women are 1.5 to 3 times more likely to die than infants born to women of other races/ethnicities despite educational attainment.[147]

As incomes decrease, rates of preventable hospitalizations increase. In addition, the rate of preventable hospitalizations for blacks is more than double that of whites. If the nation eliminated these disparities, we would prevent approximately one million hospitalizations and save $6.7 billion in health-care costs annually.[148]

In addition to having higher rates of sickness, members of minority and low-income communities have more disadvantages when it comes to treatment. Blacks are more likely than whites to use the emergency department as their primary place of care and are more likely to report delaying or forgoing prescribed medication.[149] Latinos are more than three times as likely as whites to have no regular health care provider.[150]

Why Improving the Health of Low-Income and Minority Communities Matters:

- Neighborhoods with high levels of poverty are significantly less likely to have places where children can be physically active, such as parks, green spaces, and bike paths and lanes.[151]
- Having the option to move to lower-poverty neighborhoods lowered the risk of obesity and diabetes among poor women.[152]
- Increasing supermarket access for disadvantaged individuals or areas has the potential to reduce obesity-related health disparities.[153]
- Childhood asthma rates are 2.4 times higher for Puerto Ricans, 1.6 times higher for African Americans and 1.3 times higher for American Indian/Alaska Natives than for whites, and overall asthma-related hospitalization and death rates are three times higher for African Americans than for whites.[154]

Recommendations:

▲ **Create strategies to improve the health of all Americans, regardless of race, ethnicity, income, or where they live:** All Americans should have the opportunity to be as healthy as they can be. As a nation, we must invest in first understanding the systematic disparities that exist and the factors that contribute to these differences, including poverty, income, racism, and environmental factors like exposure to pollution and quality of housing. Resources must be devoted to implement community-driven approaches to address these factors, including using place-based approaches to identify "hot spots" of the biggest, high-cost health problems to target programs, policies and support as effectively as possible.

▲ **Fully fund and implement the Prevention and Public Health Fund and CTGs:** The Prevention Fund is already being used to support prevention efforts in low-income and underserved communities that are proven to make these communities healthier, such as smoking cessation programs, immunizations, disease screening, and programs that promote nutrition and physical activity. CTGs allow communities to design interventions that meet the most pressing needs of their populations by investing in effective community-based interventions, and focus on addressing the leading causes of chronic disease, such as tobacco

use, obesity and poor nutrition. The Fund should be preserved in full and not be used to offset or justify cuts to other programs.

- **Engage entire communities in addressing disparities:** Efforts to eliminate disparities in health must also include addressing the range of community factors that influence health, such as education, safe and affordable housing, safe streets and recreation spaces, and affordable and accessible nutritious foods. This will require taking a community-wide approach, involving federal, state, and local governments, businesses, health professionals and community groups.
- **Partner with a diverse range of community members in developing and implementing health strategies:** Federal, state, and local governments must engage communities in efforts to address both on-going and emergency health threats. The views, concerns, and needs of community stakeholders, such as volunteer organizations, religious organizations, and schools and universities must be taken into account when developing strategies if they are to be successful. Proven, effective programs, such as REACH (Racial and Ethnic Approaches to Community Health) should be fully-funded and expanded.
- **Medicaid should reimburse efforts to coordinate asthma prevention and care management, including for community-wide integration of clinical, community organization, school and others.**
- **Communicate effectively with diverse community groups:** Federal, state and local officials must design culturally competent communication campaigns that use respected, trusted, and culturally competent messengers to communicate the message and appropriate channels to reach target audiences.
- **Prioritize community resiliency in health emergency preparedness efforts:** Federal, state, and local government officials must work with communities and make a concerted effort to address the needs of low-income and minority groups during health emergencies. Public health leaders must develop and sustain relationships with trusted organizations and stakeholders in diverse communities on an on-going basis, including working to improve the underlying health of at-risk communities, so these relationships are in place before a disaster strikes. Communication and community engagement must be on-going to understand the disparate needs of various populations.

5. ENSURING HEALTHY WOMEN, HEALTHY BABIES

Current Status:

Millions of women do not receive the care they need to stay healthy, both before and during pregnancy.[155] Currently, about one-third of births have complications, many of which are related to the mother's health.[156]

Over the last half-century, the U.S. has substantially reduced its infant mortality rate, which is considered as an important barometer of health needs and problems in communities, but rates have not improved significantly in the decade since, and, in some cases, have worsened.[157]

Every year, 12 percent of American babies are born too early and 8 percent are born at low birthweight. Both of these outcomes increase the risk of infant death, developmental disabilities and other health problems.[158] Compared to other developed nations, the United States has high infant mortality rates, with a ranking of 27th among industrialized countries.[159]

Why Maternal Health Matters:

- Prematurity and low birthweight are often related to the mother's health problems, such as diabetes, obesity or high blood pressure.[160]
- In 2005, the annual economic cost of premature birth was more than $26 billion, and the average first-year medical costs for preterm infants were about 10 times greater than for full-term babies.[161]

Recommendations:

▲ **Invest in preconception and prenatal care:** Traditionally, health care for pregnant women has started with conception. But many experts believe that prenatal care, which usually begins during the first three months of pregnancy, comes too late to prevent many serious maternal and child health problems. Researchers argue that expanding care to include the period before conception can reduce risks during future pregnancies. Experts are calling for an increased focus on "well woman" care, which focuses on keeping women healthier overall, with particular emphasis on preconception care, which involves maintaining good health before having children. Improving preconception health requires not only better clinical care, but more effective public health strategies. Local and state health departments and other sectors must play a major role in improving preconception health, linking women to services and providing care to low-income and minority groups.

▲ **Continue to implement and support the ACA:** The ACA will improve the health of millions of women of childbearing age by expanding access to preventive and clinical services for women and their infants, and connecting the efforts of multiple government agencies and the public and private sector.

▲ **Federal and state officials should take steps to promote preconception health:** Use existing social services to reach those at risk and safety net clinics to deliver primary care, including preconception screening and interventions, with a focus on poor, uninsured and minority women, who face higher risks; expand community health centers and continue funding the Title X Family Planning program; ensure that all states expand Medicaid eligibility to more low income women for family planning and maternity coverage, and that Medicaid reimburses providers at adequate levels; extend Medicaid coverage for adults without children and coverage of family planning and related services; encourage states to apply for Medicaid waivers for demonstration projects that provide "interconception" care during the two years after birth; provide adequate funding for other health programs for women of childbearing age such as the Healthy Start Infant Mortality Reduction Program and the Title V Maternal and Child Health Services Block Grant, both administered by HRSA; and increase funding for research into preconception health and health care, particularly at the National Center on Birth Defects and Developmental Disabilities at CDC, and the Eunice Kennedy Shriver National Institute of Child Health and Human Development at NIH.

6. REDUCING ENVRIONMENTAL HEALTH THREATS

Current Status:

Current and emerging environmental threats jeopardize the health status of individuals in communities across the nation. Over 40,600 deaths per year are related to outdoor air risk factors and 13 percent of the country's disease burden could be prevented by environmental improvements.[162]

Children are more susceptible than adults to environmental pollution because their metabolic activity is higher and their bodies are still developing.

Poor air quality has led to an increase in asthma rates. Each day, nine Americans die from asthma. The number of people diagnosed with asthma grew by 4.3 million from 2001 to 2009 — with a nearly 50 percent increase among black children.[163] In 2007, asthma costs were approximately $56 billion annually.[164]

Some studies have demonstrated that prolonged exposure to certain chemicals — particular insecticides, herbicides and fungicides — is associated with an elevated risk of Parkinson's disease.[165] The combined direct and indirect cost of Parkinson's (including treatment, social security payments and lost income) is estimated to be nearly $25 billion per year in the United States.[166]

Another environmental threat to public health is climate change. Many of the ecosystem effects of climate change could affect public health. For example, increased concentrations of ground-level carbon dioxide and longer growing seasons could result in higher pollen production, which could increase allergic and respiratory disease.[167] Furthermore, certain populations in the United States are particularly vulnerable to the negative consequences of climate change on human health, including infants and children, pregnant women, the elderly, the poor, racial and ethnic minorities, people with disabilities, people with chronic medical conditions, and outdoor workers.[168]

The Clean Air Act, aimed at reducing air pollution, has been shown to return an investment of $4 of benefits for every $1 of cost.[169] If implemented and supported, four major rules of the Clean Air Act — the Cross-State Air Pollution Rule, the Utility Mercury and Air Toxics Rule, the Industrial Boiler Rule, and the Cement Kiln Rule — would yield more than $82 billion in Medicare, Medicaid and other health care savings for America through 2021.[170]

Why Reducing Environmental Threats Matters:

- Children are typically exposed to higher levels of pollution than adults, resulting in cancer, asthma and neurodevelopment disorders.[171]
- Climate change is expected to result in higher risk factors for a range of health threats: temperature effects, air quality changes, more extreme weather events, and climate-sensitive diseases, including vector-, food-, and water-borne diseases.[172]
- If current emissions hold, heat-related deaths could increase from an average of about 700 each year to between 3,000 and 5,000 per year by 2050.[173]

Recommendations:

- **Improve coordination among agencies:** Health departments at the federal, state and local levels should work with environmental agencies to undertake initiatives to reduce known health threats from food, water and air, and educate the public about ways to avoid potential risks.
- **Establish a national health tracking network:** Congress should provide full funding for the CDC environmental public health tracking program. CDC should be provided with the mandate and resources to establish a centralized, nationwide health tracking center, and each state should receive the necessary funding to fully conduct health tracking activities, including chronic diseases such as cancer and asthma and environmental risks. A fully funded tracking network should demonstrate interoperability with the larger health information technology (HIT) system to facilitate two-way communication with clinicians and state and local public health officials.
- **Building resilience to climate-related health effects at the state and local level:** Congress should provide significantly increased funding to CDC's Climate Ready States and Cities Initiative to build capacity at the state and local levels, in order to understand the impact of climate change and apply this to long-range health planning.
- **Increase funding for research into the impact of chemical exposures on human health:** CDC has conducted limited research on how chemicals ranging from pesticides to personal care products impact health. CDC and state health departments need increased resources for "biomonitoring" (analysis of blood, urine, and tissues to measure chemical exposure in humans) to gain more understanding of how different chemicals and levels of exposures to chemicals affect health. CDC's environmental health laboratories also play an important role in studying and setting reference standards to help clinicians more effectively and efficiently diagnose and treat cardiovascular and other disease.
- **Prioritize childhood lead poisoning prevention:** While great progress has been made nationally in reducing childhood lead poisoning through efforts to remove older paint from homes and to reduce lead gasoline emissions, serious problems remain. In many cities, lead is present in the water at unacceptable high levels, while lead paint is still found in older, substandard housing in many lower-income urban areas.

A BLUEPRINT FOR ENVIRONMENTAL HEALTH — FROM THE HEALTHY ENVIRONMENTS FOR HEALTHY COMMUNITIES

The following Blueprint for Environmental Health was developed and approved by the National Environmental Health Partnership Council, a group of 25 public health and environmental health organizations. Representatives from the Association of State and Territorial Health Officials and the National Conference of State Legislatures reviewed and contributed to the development of the blueprint, however, these two organizations do not officially approve the blueprint.

TFAH thanks the members of National Environmental Health Partnership Council for their time, expertise and insights. The opinions expressed beyond this text box in the rest of the Healthier America 2013 report do not represent the views of the individual or organizational members of National Environmental Health Partnership Council.

Background and Need for Action

Contemporary research continues to reinforce and underscore the critical impact that safe and healthy environments have on human health. Indeed, many of public health's greatest accomplishments have stemmed from the knowledge that people and their environments — whether they are natural or man-made — are intrinsically intertwined.

Traditionally, the practice of environmental health as a primary branch of the public health system addresses the quality of our food, water, soil, and air; however, it also encompasses all aspects of the natural and built environments that may affect health.

There are historical and on-going environmental health issues facing American communities, such as exposure to toxicants and chemicals in our homes and neighborhoods, unsafe drinking water, air pollution and contaminated food. The field is also working to address more recent and emerging environmental health issues, such as climate change and hazards associated with more extreme and frequent weather events; the effects of energy efficiency on indoor and outdoor air quality; and the evolving understanding of potential risks associated with advanced technologies, such as nanotechnology, genomics and hydraulic fracturing.

And, there is strong and growing evidence that links the places and conditions where we live our lives — our playgrounds, child care facilities, workplaces, homes, schools and neighborhoods — to the modern challenges associated with preventing and managing disease.

This is vitally important to acknowledge as environmental-related health problems come at great costs to the quality of people's lives and to the economy. For example, chronic diseases — such as cardiovascular disease, cancer and diabetes — account for 75 percent of the nation's health care spending; researchers report that, on average, the number of children diagnosed with asthma increases each year; and CDC has documented a dramatic increase in obesity in the United States among adults, adolescents and children. All of these conditions, which result in billions of dollars in care and treatment, are associated with environmental risk factors, exposures and the quality of one's physical environment.

Fortunately, most environmental health issues are preventable. For example, effective environmental health responses to asthma range from translating the science into actionable messages that can help people mitigate their environments' respiratory effects to ensuring that clean air policies are based on sound data that protect human health.

Obesity has also been linked with important environmental factors and decisions that are well within our control, such as land-use policies that accommodate safe places to walk and bike and broaden all people's access to healthy food choices.

However, the complicated public and private workforce possessing the knowledge, skills and aptitudes to address the root causes of these environmental conditions is dwindling, growing increasingly fragmented, under-resourced and overwhelmed.

The field faces significant retention and retainment issues, including low pay as well as minimal advancement and professional development opportunities. Due to budget cuts across state and local health departments these past several years, numerous environmental health jobs have been lost. In some cases, entire environmental health programs have been closed. These issues are of particular concern to the public (or governmental workforce) since the government plays a central role in environmental protections.

Recommendations

1. Provide strong and united federal leadership and establish a national coordinating office for environmental health within the federal government.
   - Designate environmental health as a critical public health priority; environmental health is not solely a regulatory issue and should be valued as an integral part of preventive health programs.
   - Enhance coordination and communication across federal agencies responsible for environmental health as has been done in the area of environmental justice.
   - Set achievable and measurable goals to reduce environmental health risk and harm in an equitable manner.
   - Hold all entities accountable for environmental health, whether government, nonprofit, private or individual.
2. Fully support the environmental health infrastructure (including workforce) and surveillance.
   - Create incentives, such as increased pay, benefits, professional development and training, to recruit and retain environmental health workers.
   - Provide resources and training to ensure a robust and qualified workforce, particularly for state and local government staff.
   - Invest in environmental health surveillance, including disease tracking, (bio)monitoring, modeling and early warning systems.
3. Strengthen environmental health regulations and support peer-reviewed research to inform environmental health decision-making and practice.
   - Strengthen and enforce existing regulations to protect air, soil and water from human health hazards.
   - Support research on issues such as lead, indoor asthma triggers and air quality to guide regulation of indoor environments, including homes, child care facilities, workplaces and schools.
   - Enforce existing and implement newly established food safety and quality regulations.
4. Promote sustainable, equitable and healthy communities for all Americans, especially those most vulnerable and at risk.
   - Provide safe and health-promoting transportation alternatives.
   - Ensure access to healthy foods.
   - Support access to safe spaces for recreation and physical activity.
   - Ensure healthy indoor environments. Invest in green and sustainable building initiatives and energy efficiencies.
   - Decrease and eliminate exposures to toxicants and hazardous waste, placing high priority on communities that are most impacted and vulnerable to environmental health exposures.

7. ENHANCING INJURY PREVENTION

Current Status:

Around 50 million Americans — 18 percent of the population — are medically treated for injuries each year and one person dies from an injury every three minutes. Every year, more than 29 million people are treated in emergency rooms for injuries. And, every year, injuries generate $406 billion in lifetime costs for medical care and lost productivity.

Despite these numbers, injury prevention only receives 4.95 percent of the CDC budget. Funding for injury prevention for states from the CDC averages only 28 cents per American — a 24 percent drop from FY 2006 to FY 2011.

Why Enhancing Injury Prevention Matters:

- Injuries have the second highest medical costs of all preventable health issues.
- While individuals must take responsibility for taking steps to stay safe and protect themselves and their families from injuries, research has shown that public education, laws and policies can play a major role in helping keep Americans healthy and safe.

Recommendations:

- **Increase investment for injury prevention research:** Limited resources mean there is a limited ability to collect, analyze and evaluate surveillance data on injury problems; study risk and protective factors; develop and evaluate innovative solutions; and widely disseminate effective programs and policies — all necessary factors in reducing a wide range of injuries. Improved data collection through widespread and standardized use of external cause-of-injury coding is essential to being able to analyze injuries in the United States and the effectiveness of strategies to prevent them.
- **Strengthen partnerships between public health and other sectors:** Health experts must collaborate with other fields to identify and implement effective injury prevention strategies.
  - **Examples of Injury Prevention Partnerships:** Motor vehicle policies and programs should involve working with transportation officials, experts and members of industry; violence reduction efforts should involve community organizations, social services, education, law enforcement, judicial system and other areas.

8. PREVENTING AND CONTROLLING INFECTIOUS DISEASES

Current Status:

Since the 1940s, antibiotics and other antimicrobial agents have saved countless lives from infectious diseases. However, many bugs have begun to adapt to the drugs designed to kill them, and few new antibiotics are being developed.[174] Meanwhile, a growing number of people are refusing or delaying vaccines for themselves or their children, resulting in the increase of deadly vaccine-preventable diseases.

There are numerous infectious diseases which have seen an increased prevalence in Americans.

- Each season, an average of five percent to 20 percent of the U.S. population gets the viral respiratory infection influenza, leading to more than 200,000 hospitalizations. Influenza strains vary from year to year and can be mild or severe — causing 3,000 to 49,000 deaths per year from 1976 to 2006. Although it was viewed as a relatively moderate pandemic, the H1N1 virus had a serious impact, infecting around 20 percent of Americans and leading to approximately 274,000 hospitalizations and 12,000 deaths.[175]
- Pertussis, commonly known as whooping cough, is a highly contagious bacterial respiratory infection and, in 2012, the majority of states saw increases in the number of Pertussis cases compared with 2011, including states with two to 10 times the national average of cases.[176]
- In 2011, a total of 10,521 new tuberculosis (TB) cases were reported in the United States, an incidence of 3.4 cases per 100,000 population.[177]
- Furthermore, during the course of medical treatment, bacteria, fungi, and viruses often cause healthcare-associated infections (HAI) — one of the leading causes of death.[178]

Why Preventing and Controlling Infectious Diseases Matters:

- Healthcare-associated infections result in $28 to $33 billion in preventable healthcare expenditures each year.[179] By preventing 20 percent of infections, healthcare facilities can save nearly $7 billion. By reducing 70 percent of infections, that number could increase to $23 billion.[180]
- Seasonal influenza results in a considerable financial burden: approximately $10.4 billion in direct costs for hospitalizations and outpatient visits and more than $16 billion in lost earnings.[181] Vaccination coverage for the 2011-2012 flu season was only 46 percent in the U.S.[182] By preventing hospitalizations, flu immunizations can save $80 per person vaccinated per year.[183]
- Antimicrobial resistance presents one of the greatest threats to human health. In the United States, antimicrobial-resistant infections generate more than eight million additional hospital days.[184]

Recommendations:

- ▲ **Sustain investments for epidemiology and public health labs capacity:** Federal grants are vital to supporting the ability of public health expert scientists and laboratories to quickly detect, pinpoint and respond to an emergency such as an emerging infectious disease or foodborne outbreak. Support is also needed to allow epidemiologists and labs to update technology, including the ability to allow for participation in electronic, interoperable laboratory reporting, training health information specialists and ensuring data functionality to support decision making. In addition, resources from the Prevention Fund are being used to hire and train epidemiologists and laboratory scientists and expand the number of public health laboratories using electronic laboratory information systems.[185,186]
- ▲ **Reduce the incidence of HAIs and resistant infections:** States can work with the health care sector and hospitals to create legal and policy strategies to reduce the incidence of HAI. States are in a unique position to impact HAIs because they are empowered to regulate and inspect facilities, collect and report data, and implement improvement programs. To most effectively structure an evidence-based HAI-elimination program, legislation must delegate authority to the state health agency, as well other government officials and advisory councils, as appropriate, to reduce HAIs. Statutes must define the agencies' authority to implement a program, enforce the law, ensure sustainability, protect confidentiality and regulate. This should include a fully-vaccinated health care workforce.[187]
- ▲ **Sustain investments in immunization programs:** Immunizations help protect individuals and the community from a range of new and old infectious threats, ranging from pertussis to the flu. The ability to quickly and accurately vaccinate the public is particularly vital during infectious pandemics or bioterrorism attacks. Support for immunizations must be maintained, including Prevention Fund investments that have been used to improve the Immunization Information Systems and other information technologies, and adult immunization programs and vaccination capacity in schools should be expanded.[188]

- **Increase access to the influenza vaccine:** Medicaid should cover the flu vaccine with no-cost sharing, just like new group and individual health plans are required to do under the Affordable Care Act.[189]

- **Address antimicrobial resistance:** In the absence of action by Congress, the Administration should fully implement provisions of the STAAR Act[190] and the 2012 Public Health Action Plan to Combat Antimicrobial Resistance,[191] released by the Interagency Task Force on Antimicrobial Resistance. The Task Force stressed that strong Administration leadership is necessary to coordinate efforts across agencies and prioritize this pressing public health problem. Key components that a comprehensive campaign should address include:

  - **Reduce overprescribing.** CMS, CDC, accrediting organizations, healthcare facilities, and medical organizations must work together to reduce overprescribing and misuse of antibiotics by tracking and publicly reporting prescribing data as part of quality measurements and other surveillance mechanisms, educating providers and patients about the harm of inappropriate prescribing, and providing clinical decision support through HIT.

  - **Curb overuse of antimicrobials in livestock and poultry.** Antimicrobials have long been used in livestock and poultry for the treatment, control and prevention of diseases, as well as to increase production. Using the same classes of antimicrobials in food-production animals and humans increases the likelihood that infections borne from infected animals will be resistant to the standard treatment protocols for humans.[192] FDA and USDA must take action to drastically reduce the misuse of medically-important antimicrobials in agriculture, measure rates of use, and verify that industry is complying with all guidance and regulations.

  - **Develop new antibiotics.** There must be a significant partnership between governments, academia, the pharmaceutical industry, and medical communities to rebuild the pipeline of new antibiotics, including investment by the U.S. government. FDA should also enable new regulatory pathways to encourage development of novel antibiotics, such as the Special Population Limited Medical Use model, where drugs are approved for use only in targeted patients with particular conditions.[193]

9. PRIORITIZING HEALTH EMERGENCIES AND BIOTERRORISM PREPAREDNESS

September 11, 2001 and the anthrax attacks were a wake-up call to the country. Eleven years later, however, there is increasing disinterest in preparedness, and the accomplishments achieved in the last decade are being undermined due to severe budget cuts and lack of prioritization. Hurricane Sandy and the fungal meningitis outbreak were reminders of the importance of on-going preparedness for emergencies of all types.

After 2001, major strides were made in public health preparedness. Investments led to significant improvements in preparedness planning and coordination; public health laboratories; vaccine manufacturing; the Strategic National Stockpile; pharmaceutical and medical equipment distribution; surveillance; communications; legal and liability protections; increasing and upgrading staff; and surge capacity. Significant gaps have persisted, particularly in areas of biosurveillance, providing mass care during emergencies, maintaining a stable medical countermeasure (MCM) strategy and helping communities learn how to cope and recover from emergencies.[194] Instead of building on the achievements and tackling the continuing concerns, the progress of the past 10 years is now at risk.

From 2011-2012, 29 states and Washington, D.C. cut state public health funds — with 23 of those states and D.C. cutting their budgets for a second year in a row and 14 states for three years in a row.[195] Federal funds from the CDC for state and local preparedness declined by 38 percent from fiscal year 2005 to 2012 (adjusted for inflation).[196] Because of cuts in funding at the federal, state and local levels to public health funds, states and localities are not as prepared as they need to be to deal with emergencies.

Why Prioritizing Health Emergencies and Bioterrorism Preparedness Matters:

- Health emergencies take enormous human and financial tolls. For example, Hurricanes Katrina and Rita killed approximately 1,900 people and caused more than $100 billion in damage;[197] in 2011, a series of tornadoes in Southern and Central states resulted in more than $7 billion in damages and more than 140 deaths;[198] the Gulf Coast Oil Spill resulted in a loss of an estimated $1.2 billion in economic output and 17,000 jobs in 2010;[199] the clean up from the 2001 anthrax attacks exceeded $1 billion;[200] and Superstorm Sandy in 2012 could cost $50 billion.[201]
- In addition to the human toll, the total economic loss from the September 11, 2001 tragedies has been estimated at roughly $80 billion,[202] with the insurance industry paying $32.5 billion in insured losses from business interruption, property, workers' compensation, aviation liability and other liability costs.[203]

Recommendations:

- **Provide dedicated, on-going preparedness funding:** Adequate, stable, and dedicated funding at the local, state and federal levels must be provided to ensure basic capabilities are in place and experts have the training and systems to quickly act in the face of emergencies.
- **Create an integrated biosurveillance operation:** As the White House implements the National Biosurveillance Strategy, it must include means to achieve interoperability, efficiency and transparency among various surveillance systems. Now is the time to eliminate duplicative surveillance systems and invest in public health capacity to use electronic health records as a source of real-time health data.
- **Improve the research, development and availability of vaccines and medications:** The United States must place a high priority on supporting research and development of medical countermeasures, including vaccines, medicines, diagnostics and devices, especially for special populations such as children. Policymakers must ensure that the public health system is involved in this process, from initial investment through distribution and dispensing.
- **Create resilient communities:** Health departments must work with homeland security, first responder, healthcare, and community-based groups to build well-connected, well-informed, coordinated, healthy communities more resilient to disasters. The ability to provide on-going mental health services must be included in preparedness planning, including providing support for communities as the cope and recover from emergencies on a sustained basis.
- **Build a prepared health care system:** Policymakers and payers should support health care coalitions, including accountable care organizations, to continue to build and coordinate health system preparedness plans to handle a surge of patients during a disaster.

Prepare for Health! A Framework for Health-based Emergency Readiness Activities

By Ana-Marie Jones, Executive Director, CARD — Collaborating Agencies Responding to Disasters

Disasters, by their destructive and disruptive nature, critically stress people and the infrastructure systems that serve them. While media attention usually follows the more urgent and traumatic events, these disasters, their coverage, and the subsequent interventions provided to communities have a great impact on the overall health and well-being of the public. On October 17, 1989 at 5:04 pm, the Loma Prieta Earthquake struck the Oakland-San Francisco Bay Area. The damage and devastation was widespread throughout the area. In addition to the loss of lives and property, the Oakland Bay Bridge, Highway 17, and several other transit arteries were disrupted for many weeks — increasing stress, anxiety and commute times across the region.

By interrupting the 1989 World Series — called the "Battle of the Bay" because it was between the Oakland Athletics and the San Francisco Giants — the earthquake became the most documented disaster in recent history. Sports journalists covering the game became disaster historians. The entire world saw that — despite over 120 years of warning, great effort, and the immediate response of some of the most trained and experienced emergency services agencies in the world — we were unable to address the immediate, short-range and longer-term needs of the most vulnerable people in our community. We learned that an earthquake, or any disaster, doesn't have to destroy property or cause death or injury to have a far-reaching impact on health, wellness and our ability to thrive. Medically fragile and poor communities, for example, rely on vital services including Meals-on-Wheels or in-home healthcare service providers. If roads aren't open, if transit isn't available, or if the workers don't have proper credentials to get around road blocks, their clients become disaster victims whether or not the earthquake actually harmed them or their housing unit.

Quite simply, the earthquake showed the incredible vulnerability of the service industry infrastructure. There was no "Plan B" to assist seniors, children, people with disabilities and others without adequate resources.

In the aftermath, CARD (Collaborating Agencies Responding to Disasters) was created by local community agencies to address their unique emergency preparedness and disaster response needs. CARD's defined role remains to make all aspects of preparedness (response, planning, and recovery) accessible and sustainable so that a continuum of care will be provided in the face of whatever emergencies or disasters happen.

Over the years, thanks to the ongoing partnership of community agencies, we learned why so many agencies weren't able to embrace preparedness and disaster readiness. The whole preparedness message from disaster services agencies, which is heavily steeped in fear of future disasters, doesn't speak to service providers. For their clients, and for their agencies, it would be a luxury to worry about potential damage from an earthquake that could happen sometime in the next 30 years.

Emergency management experts were pushing service providers to prioritize unfunded preparation for earthquakes and other disasters over their day-to-day operations and other funded mission-critical efforts. Agencies are routinely pressed to take on this extra level of effort without extra funding, without culturally appropriate tools and content, and without the level of public support given to the larger, more traditional disaster services agencies. The greatest push for these preparedness efforts inevitably happens after a disaster, when the traditional approach and the most funded, validated disaster response players have failed.

Over the years, spanning many disasters, using research from multiple fields, we worked directly with service providers to retool and reframe readiness as something that can be embraced and incorporated into daily routines. Our approach is to help agencies build their everyday brilliance into their disaster resilience. They are preparing to prosper, preparing to be able to accomplish their mission-centric goals in the face of whatever challenges arise.

Instead of fear- or threat-based interventions, when working with local health entities, CARD has focused on a "Prepare for Health" platform, in which the world of emergency readiness is viewed through a lens where robust individual and community health is the goal. With this lens, public health entities would be lead conveners of the full gamut of emergency services stakeholders. As such, their knowledge base would be a vital resource in helping a community become stronger, healthier and better able to respond to and rebound from an actual event. In so doing, they would also be better able to address chronic conditions, stress and other negative community health outcomes.

In the Prepare for Health framework, health-based preparedness messengers would never employ the one-size-fits-all, scattergun, fear and anxiety producing messages — so common in traditional emergency management — in an attempt to scare people into short-term action. Enough research has shown these fear-based messages do not work, rather they cause unintended negative consequences.

For a host of reasons, public health departments and related stakeholders are better positioned to be the frontrunners as public preparedness messengers. Public health entities, much more than emergency response agencies, need to know more about their communities to fulfill their primary missions. For example, in a fire, when the fire department arrives, performs a rescue, and puts out the fire — their primary mission has been fulfilled. They didn't need to know the eating habits, languages spoken, preferred communication methods, religious beliefs, mental and physical activity and ability levels, incomes, or social conventions of the people rescued. For public health professionals to achieve their primary missions, to improve health and wellness, to track disease, and to stop disease, they must understand those things and more about the people they serve.

Thankfully, this mirrors what the public more actively wants. Most people aspire to being healthier, stronger and better able to resolve stress-related issues and chronic conditions. Most people can readily embrace a vision of being healthy, free from pain and discomfort. By contrast, most people prefer to not even think about disasters. Across the United States, for over 100 years, we've spent billions telling the public that specially trained responders are ready to serve them in an emergency. We've given the public many good reasons to ignore traditional disaster preparedness messages.

In combining an alternative approach to emergency preparedness with traditional public health programs, we remove preparedness from the realm of the scary, terrible and earth-shattering and put it squarely into an empowering health initiative, where everyone is able to be strong and healthy and keep themselves and their loved ones safe and well.

A simple intervention is a safety whistle on key chains. Many people face fear just leaving their homes. If you are an elderly person, in a tougher neighborhood, having a whistle could help empower you to go out for a much needed walk or visit a clinic. It would also help them call for help during an earthquake. Having that whistle also means that they could be the rescuer for someone else in distress. One participant shared that she tripled the attendance in her senior walking group by showing seniors how to stop traffic with the whistle.

Further, when public health is the convener, it opens the conversation and draws connections that traditional emergency services agencies usually cannot make. The traditional way people are shown to Stop, Drop, Roll (if on fire) or Drop, Cover, and Hold On (in an earthquake or a physical attack) is for a physically able, small to medium sized, healthy person. It's easier for some people to do these actions. But what about the people who would be harmed if they tried? Public health can bring in injury and fall prevention specialists to show elderly and disabled participants how to modify the actions to stay safe, and can provide other helpful, accessible information.

Experienced traditional emergency management professionals also welcome public health agencies as the convener, because they know how hard it is to bring the public into disaster preparedness. Staying healthy, safe and well in the face of disasters is a smaller piece of a larger framework of staying healthy, safe and well every day. Imbedding readiness into a comprehensive wellness strategy is much like hiding the emergency preparedness pill in the public health apple sauce. At public health fairs, for instance, health educators can do fun interactive trainings about hand washing and using hand sanitizers, teach the Dracula cough, show the benefits of proper hydration (as well as doing arm curls with bottles of water), and have participants program their phones with medical

information and emergency contacts. Learning about vaccinations, and the distribution of medication at points of dispensing (PODS) is also fascinating for people who have never seen it.

Rather than the message being framed around preparing for the worst case scenario, this is about making people healthier every day, empowering them to be the leaders and role models in their circles, and having disasters be one of the many things they are better able to address — because they are stronger, healthier, and more united. Public health needs to break free of the limited traditional disaster conversations and embrace the bigger public health promise of helping people to avoid exposure to health threats, and building communities such that even if they are exposed, they are much less susceptible. Resilience and the much prized "bounced back" capacity, pales in comparison to the benefits offered by building robust health and avoiding the health hazards in the first place.

Placing public health at the center also provides a great opportunity for complementary and alternative medicine and health programs. As a keynote speaker at longer conferences, I ask the audience if anyone practices meditation, Reiki, yoga, or deep diaphragmatic breathing — and there is always someone. I invite the audience member to lead the room through some deep diaphragmatic breathing, some light stretching, shoulder rolls or a short meditation. If the audience does this a few times during a seven-hour meeting, by the end, many people share how great they feel.

Similarly, a public health sensibility when making menu choices — including fruits, veggies, nuts, hard boiled eggs, lean meats, salads, protein shakes, etc. — leaves everyone feeling better, rather than running (and crashing) on an empty sugar rush. The "Prepare for Health" recipe is clear: remove fear and threat, add heaps of empowerment, offer health and wellness that has been steeped and infused with readiness, mix with engaged, diverse communities, and serve with a commitment to building healthy, resilient people, living in united, empowered communities.

Conclusion

There is no equivocating; we must build healthier, more resilient communities. We must prepare our communities for a variety of public health emergencies. We know the traditional approach to emergency preparedness has not worked — despite billions of dollars invested, massive agreement from all the major disaster services agencies, and decades of their campaigns and efforts. While we cannot reach and track every person, we can reach, track and leverage relationships with nonprofits, faith agencies, and other committed service providers whose clients are among the most vulnerable people in any community. There is no need for any other community to spend decades fighting through the hard lessons we had to learn during CARD's early years.

We know that public health professionals cannot accomplish their readiness goals by being the harbingers of health-related doom — they must actively champion diverse communities getting what they need to be safe, healthy, and sustainably connected to their resources.

Health, like readiness, cannot be done in fits and starts, lurching forward only after a scare, receding back once the threat has passed. For communities that have embraced disaster readiness, the health conversation can be a welcomed, nuanced addition. For communities that have already embraced health and wellness, the addition of emergency readiness can increase their sense of safety and confidence. For the millions of residents not yet actively engaged in their own health and wellness, nor in their own emergency readiness, the idea that they can "Prepare for Health" could be both life-affirming and transformational.

10. REFORMING FOOD SAFETY

Current Status:

Annually, 48 million Americans suffer from foodborne illnesses. These illnesses send 128,000 people to the hospital and kill approximately 3,000.[204] Virtually all of these illnesses could be prevented if the right measures are taken to improve the U.S. food safety system.

Why Reforming Food Safety Matters:

- Every year, approximately one million Americans who are stricken with foodborne illnesses will suffer from long-term chronic complications.[205]
- Salmonella infections, which are responsible for an estimated $365 million in direct medical costs annually, have not decreased over the past 15 years and have increased by 10 percent recently.[206]

Recommendations:

- **Fully fund and implement the FDA Food Safety Modernization Act:** Although the FDA Food Safety Modernization Act passed in 2011, the White House has yet to finalize key rules to implement the law, including preventive controls for food and feed facilities, produce safety, and a foreign supplier verification program.[207] Congress and the Administration should also provide enough funding to FDA, CDC and relevant state agencies to be able to implement and enforce the law.
- **Improve inspection capacity:** There are insufficient resources to support enough inspectors for foods regulated by FDA, and there is not enough authority for FDA to have oversight over state and third party inspections.
- **Move toward a unified government food safety agency:** The federal government currently does not have a coordinated, cross-governmental approach to regulating food safety. Right now, food safety activities are siloed across a range of agencies, and many priorities and practices are outdated. As a first step, food safety functions should continue to be unified within the FDA, and a plan with a set timeline should be developed to restructure food safety regulatory functions across the federal government into a single, unified food safety agency to carry out a prevention-focused, integrated food safety strategy. In addition, plans should include ensuring strong scientific research and outbreak investigation activities, and that these activities are used to help inform regulation and policies.
- **Examine an industry user-fee model for food safety:** User fees for food and beverage industries, similar to those employed for drugs and devices at FDA, should be reviewed as a potential new model for raising additional resources to support modernized, more efficient food safety inspection practices.
- **Improve surveillance of foodborne illnesses:** Currently, foodborne illnesses are radically underreported in the United States and the quality of reporting varies dramatically by state. New standards and requirements should be put in place to incentivize states to improve reporting and penalize states for underreporting. Surveillance for foodborne illness outbreaks should be fully integrated with other HIT systems to improve tracking and identification of scope of problems as well as sources of outbreaks. FDA and CDC should also have a plan requiring clinics to send cultures from rapid response tests showing problems to public health labs to allow for subtype pathogen testing.
- **Curb overuse of antimicrobials in livestock and poultry:** Antimicrobials have long been used in livestock and poultry for the treatment, control and prevention of diseases, as well as to increase production. Using the same classes of antimicrobials in food-production animals and humans increases the likelihood that infections borne from infected animals will be resistant to the standard treatment protocols for humans.[208] FDA and USDA must take action to drastically reduce the misuse of medically-important antimicrobials in agriculture, measure rates of use, and verify that industry is complying with all guidance and regulations.
- **Prevent the tainting of food by environmental contaminants:** Measures should be implemented to prevent the tainting of food by environmental contaminants, such as untreated sewage or manure that enter waters and pollute crops downstream. Requirements should be established to strengthen controls on air and water discharges of mercury and other common pollutants that are widely found in the food supply. FDA should set limits for certain contaminants, such as arsenic in rice products and apple juice.[209]

Endnotes

1 Kung HC, Hoyert DL, Xu JQ, Murphy SL. Deaths: final data for 2005. National Vital Statistics Reports 2008;56(10). http://www.cdc.gov/nchs/data/nvsr/nvsr56/nvsr56_10.pdf (accessed July 14, 2010).

2 Anderson G. "Chronic Conditions: Making the Case for Ongoing Care." Baltimore, MD: John Hopkins University; 2004.

3 Investment in research saves lives and money: Infectious Diseases. In *Lasker Foundation*. http://www.laskerfoundation.org/media/pdf/factsheet15infectiousdiseases.pdf (accessed November 14, 2012).

4 Trust for America's Health. *Prevention for a Healthier America: Investments in Disease Prevention Yield Significant Savings, Stronger Communities*. Washington, D.C.: Trust for America's Health, 2008. http://healthyamericans.org/reports/prevention08/ (accessed November 2012).

5 Trust for America's Health. *F as in Fat: How Obesity Threatens America's Health, 2012*. Washington, D.C.: Trust for America's Health, 2012. http://healthyamericans.org/report/100/ (accessed November 2012).

6 *Beyond Health Care: New Directions to a Healthier America*. RWJF Commission for a Healthier America. 2009.

7 Institute of Medicine. *For the Public's Health: Investing in a Healthier Future*. Washington, D.C.: National Academies Press, April 2012.

8 RESOLVE. "Transforming Public Health: Emerging Concepts for Decision Making in a Changing Public Health World." 2012.

9 Institute of Medicine. *For the Public's Health: Investing in a Healthier Future*. Washington, D.C.: National Academies Press, April 2012.

10 RESOLVE. "Transforming Public Health: Emerging Concepts for Decision Making in a Changing Public Health World." 2012.

11 Ibid.

12 Welcome to the Public Health Accreditation Board. In *Public Health Accreditation Board*. http://www.phaboard.org/ (accessed November 9, 2012).

13 Public Health Accreditation Board. *Standards and Measures*. Alexandria, VA: Public Health Accreditation Board, 2011.

14 Ibid.

15 Ibid.

16 U.S. Department of Health and Human Services. *Fiscal Year 2013 Budget in Brief: Strengthening Health and Opportunity for All Americans*. http://www.hhs.gov/budget/budget-brief-fy2013.pdf (accessed October 2012).

17 Reports from the National Biosurveillance Advisory Subcommittee. http://www.cdc.gov/about/advisory/pdf/NBASFinalReport_April2011.pdf (accessed October 2012).

18 State, Tribal, Local and Territorial Workgroup. STLT Workgroup Recommendations to the Advisory Committee to the Director, CDC. October 2011.

19 Trust for America's Health. *Investing in America's Health: A State-by-State Look at Public Health Funding and Key Health Facts*. Washington, D.C.: Trust for America's Health, 2012. http://www.tfah.org/report/94/ (accessed October 2012).

20 National Association of County and City Health Officials. *Budget Cuts Continue to Affect the Health of Americans: Update November 2011*. Washington, D.C.: National Association of County and City Health Officials, November 2011. http://www.naccho.org/topics/infrastructure/lhdbudget/upload/Research-Brief-Final.pdf (accessed October 2012).

21 Association of State and Territorial Health Officials. *Budget Cuts Continue to Affect the Health of Americans: Update August 2012*. Arlington, VA: Association of State and Territorial Health Officials, 2012. http://www.astho.org/Research/Data-and-Analysis/ASTHO-Budget-Cuts-Impact-Research-Brief-Update-(August-2012)/ (accessed January 2013).

22 Trust for America's Health. *Investing in America's Health: A State-by-State Look at Public Health Funding and Key Health Facts*. Washington, D.C.: Trust for America's Health, 2012. http://www.tfah.org/report/94/ (accessed October 2012).

23 Institute of Medicine. *For the Public's Health: Investing in a Healthier Future*. Washington, D.C.: National Academies Press, April 2012.

24 Grade A — The USPSTF recommends the service. There is high certainty that the net benefit is substantial. And Grade B -The USPSTF recommends the service. There is high certainty that the net benefit is moderate or there is moderate certainty that the net benefit is moderate to substantial.

25 The Henry J. Kaiser Family Foundation. Preventive Services Covered by Private Health Plans under the Affordable Care Act, September 2011.

26 Partnership for Prevention. *Preventive Care: A National Profile on Use, Disparities, and Health Benefits*. Washington, D.C.: Partnership for Prevention, 2007.

27 Centers for Disease Control and Prevention. Use of Selected Clinical Preventive Services Among Adults—United States, 2007-2010. *MMWR*, 61, 2012.

28 Truman BT, Smith CK, Roy K, et al. Health disparities and inequalities—United States. *MMWR*, 60, 2011.

29 Maciossek MV, Coffield AB, Flottemesch TF, Edwards NM and Solbert LI. Greater Use of Preventive Services in U.S. Health Care Could Save Lives at Little or No Cost. *Health Affairs*, 29(9): 1656-1660, 2010.

30 Kaiser Commission on Medicaid and the Uninsured. Coverage of Preventive Services for Adults in Medicaid. The Henry J. Kaiser Family Foundation. September 2012. http://www.kff.org/medicaid/upload/8359.pdf (accessed October 2012).

31 Gerard Anderson. Chronic Care: Making the Case for Ongoing Care. Robert Wood Johnson Foundation, March 2010. http://www.rwjf.org/files/research/50968chronic.care.chartbook.pdf. (accessed November 14, 2012).

32 Community Guide recommendations related to these potential demonstrations include: Task Force on Community Preventive Services, "Recommendations for Worksite Interventions to Improve Workers Health," *American Journal of Preventive Health,* 2010; 38(2S):S232-S236; Nurmagambetov, Op Cit; and Task Force on Community Preventive Services, "Recommendations from the Task Force on Community Preventive Services to Decrease Asthma Morbidity Through Home-Based, Multi-Trigger, Multi-Component Interventions," *American Journal of Preventive Health,* 2011; 41(2S1):S1-S4.

33 Hoppin P, Jacobs M and Stillman L. "Investing in Best Practices for Asthma: A Business Case for Education and Environmental Interventions." Asthma Regional Council of New England, June 2010.

34 Cawley J and Meyerhoefer C. The Medical Care Costs of Obesity: An Instrumental Variables Approach. *Journal of Health Economics,* 31(1): 219-230, 2012; And Finkelstein, Trogdon, Cohen, et al. "Annual Medical Spending Attributable to Obesity".

35 Toll of Tobacco in the United States of America. In *Campaign for Tobacco-Free Kids.* June 13, 2012. https://www.tobaccofreekids.org/research/factsheets/pdf/0072.pdf. (accessed October 24, 2012).

36 Kaiser Family Foundation. Medicare at a Glance. November 2012. http://www.kff.org/medicare/upload/1066-15.pdf (accessed December 2012).

37 Kaiser Commission on Medicaid and the Uninsured. The Medicaid Program at a Glance. September 2012. http://www.kff.org/medicaid/upload/7235-05.pdf (accessed December 2012).

38 McClellan M, McKethan AN, Lewis JL, Roski J, Fisher ES. A National Strategy to Put Accountable Care Into Practice. *Health Affairs,* 29(5): 982-990, 2010.

39 Deliotte Center for Health Solutions. *Accountable Care Organizations: A New Model for Sustainable Innovation.* 2010. http://www.deloitte.com/view/en_US/us/Industries/US-federal-government/center-for-health-solutions/research/bc-087956da618210VgnVCM100000ba42f00aRCRD.htm (accessed October 2012).

40 Robinow A. The Potential of Global Payment: Insights from the Field. The Commonwealth Fund. February 2010. http://www.commonwealthfund.org/~/media/Files/Publications/Fund%20Report/2010/Feb/1373_Robinow_potential_global_payment.pdf (Accessed October 2012).

41 Austen BioInnovation Institute in Akron. *Healthier By Design: Creating Accountable Care Communities, A Framework for Engagement and Sustainability.* February 2012. http://www.abiakron.org/healthier-by-design (accessed October 2012).

42 Ibid.

43 The Cost of Diabetes. In *American Diabetes Association.* http://www.diabetes.org/advocate/resources/cost-of-diabetes.html (accessed October 2012).

44 Community Transformation Grants (CTG) States and Communities Program Descriptions. In *U.S. Centers for Disease Control and Prevention.* http://www.cdc.gov/communitytransformation/funds/programs.htm (accessed October 2012).

45 Janosky JE. Austen BioInnovation Institute in Akron. Presentation for the Trust for America's Health. August 2012.

46 Ibid.

47 Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute. *County Rankings and Roadmaps: A Healthier Nation County by County.* February 2012. http://www.countyhealthrankings.org/roadmaps (accessed October 2012).

48 Austen BioInnovation Institute in Akron. *Healthier By Design: Creating Accountable Care Communities, A Framework for Engagement and Sustainability.* February 2012. http://www.abiakron.org/healthier-by-design (accessed October 2012).

49 Song Z, Safran DG, Landon BE, et al. The 'Alternative Quality Contract,' Based On A Global Budget, Lowered Medical Spending And Improved Quality. *Health Affairs,* doi:10.1377/hlthaff.2012.0327, July 2012.

50 Ayanian JZ and Van der Wees PJ. Tackling Rising Health Care Costs in Massachusetts. *New England Journal of Medicine,* 367: 790-793, 2012.

51 Vermont Global Commitment to Health. In *National Conference of State Legislatures.* http://www.ncsl.org/press-room/ncsl-in-news-june-2012.aspx (accessed November 14, 2012).

52 Langweil N and Besio S Powerpoint. Medicaid & Global Commitment. Vermont Legislative Joint Fiscal Office, January 12, 2011. http://www.leg.state.vt.us/jfo/healthcare/2011_Medicaid_&_GC_Overview.pdf (accessed October 2012).

53 The ABCs of CCOs Fact Sheet, April 2012. In *Oregon Center for Public Policy.* http://www.ocpp.org/2012/04/30/fs20120430updated-abcs-ccos/ (accessed October 2012).

54 Smith J. Transforming the Oregon Health Plan: Coordinated Care Organizations. Oregon Health Authority. July 2012. http://www.statenetwork.org/wp-content/uploads/2012/07/State-Network-AM-Jeanene-Smith.pdf (accessed October 2012).

55 Ernst & Young. *Results of the 2009 Schedule H Project, January 2012.* http://www.aha.org/content/12/09-sche-h-benchmark.pdf (accessed May 7, 2012).

56 Hearle K, *Establishing the value of tax-exempt status* (July 2006). Retrieved from http://tinyurl.com/83hl5vp; http://www.hilltopinstitute.org/publications/CommunityBenefitInContextOriginsAndEvolution-ACA9007-June2012.pdf (accessed October 2012); Somerville, M. Community Benefit in Context: Origins and Evolution — ACA §9007. The Hilltop Institute. 2012.

57 As reported by the U.S. Congressional Budget Office, Nonprofit Hospitals and Tax Arbitrage (2006). http://www.cbo.gov/sites/default/files/cbofiles/ftpdocs/76xx/doc7696/12-06-hospitaltax.pdf (accessed November 14, 2012).

58 Internal Revenue Service. Notice and Request for Comments Regarding the Community Health Needs Assessment Requirements for Tax-exempt Hospitals. http://www.irs.gov/pub/irs-drop/n-11-52.pdf (accessed November 2012).

59 Internal Revenue Service. 2011 Instructions for Schedule H. http://www.irs.gov/pub/irs-pdf/i990sh.pdf (accessed November 2012).

60 Trust for America's Health. *F as in Fat: How Obesity Threatens America's Future, 2012.* Washington, D.C.: Trust for America's Health. http://www.tfah.org/report/100/ (accessed October 2012).

61 Community Transformation Grants (CTG) Program Fact Sheet. In *U.S. Centers for Disease Control and Prevention.* http://www.cdc.gov/communitytransformation/funds/index.htm (accessed October 2012)

62 Centers for Disease Control and Prevention. Funding Opportunity Announcement: Public Prevention Health Fund: Community Transformation Grants. 2011.

63 Campfield Z. "Federal dollars help target disease prevention in Oklahoma County, one ZIP code at a time." *The Oklahoman* October 14, 2012. http://newsok.com/federal-dollars-help-target-disease-prevention-in-oklahoma-county-one-zip-code-at-a-time/article/3718718/?page=2 (accessed November 14, 2012).

64 Ibid.

65 National estimates published in: Wang YC et al. Health and Economic Burden of the Projected Obesity Trends in the USA and the UK. *The Lancet,* 378, 2011. State analysis study published in: Trust for America's Health and Robert Wood Johnson Foundation. *F as in Fat: How Obesity Threatens America's Future, 2012.*

66 Trust for America's Health and Robert Wood Johnson Foundation. *F as in Fat: How Obesity Threatens America's Future, 2012.*

67 Healthy Communities: The Intersection of Community Development and Health. In *Robert Wood Johnson Foundation.* http://www.rwjf.org/content/rwjf/en/research-publications/find-rwjf-research/2011/09/healthy-communities0.html (accessed November 14, 2012).

68 Investing in What Works: Recommended Reading. In *Robert Wood Johnson Foundation.* http://www.rwjf.org/en/blogs/new-public-health.html?bst=new-public-health %3Afederal-reserve (accessed November 14, 2012).

69 Health Impact Project. "About HIA." http://www.healthimpactproject.org/hia (accessed December 2012).

70 Landrigan PJ, Schechter CB, Lipton JM, Fahs MC, Schwartz J. Environmental pollutants and disease in American children: estimates of morbidity, mortality, and costs for lead poisoning, asthma, cancer, and developmental disabilities. *Environmental Health Perspectives,* 110(7): 721–728, 2002.

71 The programs and funding used were: HUD Office of Healthy Homes and Lead Hazard Control, the Baltimore City Community Development Block Grant and Community Services Block Grant Programs (ARRA), the Maryland Energy Administration, the Annie E. Casey Foundation, Osprey Foundation, and the Blaustein Foundation.

72 Ogden CL, Carroll MD, Kit BK, Flegal KM. Prevalence of Obesity and Trends in Body Mass Index Among US Children and Adolescents, 1999-2010. *Journal of the American Medical Association,* 307(5), 2012.

73 Trust for America's Health and Healthy Schools Campaign. *Health in Mind.* Washington, D.C.: Trust for America's Health, 2012.

74 Dunkle MC and Nash MA. *Beyond the Health Room.* Washington, DC: Council of Chief State School Officers, Resource Center on Educational Equity; 1991.

75 Kaiser Family Foundation and Health Research and Educational Trust *Employer Health Benefits 2012 Annual Survey.* Menlo Park California, Chicago: Kaiser Family Foundation, Health Research and Educational Trust and the National Opinion Research Center, 2012. http://ehbs.kff.org/?page=abstract&id=1 (accessed November 2012).

76 National Conference of State Legislatures. State Employee Health Benefits. October 2012. http://www.ncsl.org/issues-research/health/state-employee-health-benefits-ncsl.aspx (accessed December 2012).

77 U.S. Centers for Disease Control and Prevention. "National Healthy Worksite Program." http://www.cdc.gov/nationalhealthyworksite/about/index.html (accessed December 2012).

78 Altarum Institute Issue Brief. Enabling Employee Wellness: What Do We Know About What Works? January 2011.

79 State Employee Health Benefits. In *National Conference of State Legislatures.* http://www.ncsl.org/issues-research/health/state-employee-health-benefits-ncsl.aspx (accessed October 17, 2012).

80 Frequently Asked Questions about Small Business. In *Small Business Administration.* http://www.sba.gov/sites/default/files/sbfaq.pdf (accessed May 2012).

81 Waidmann TA, Ormond BA, Spillman BC. Potential Savings through Prevention of Avoidable Chronic Illness among CalPERS State Active Members. The Urban Institute, 2012.

82 Ibid.

83 Ibid.

84 The Wellness Council of America. *A WELCOA Case Study. First of Its Kind: The State of Nebraska's Integrated Plan for Health.* Omaha, NE: Wellness Council of America, 2012.

85 Ibid.

86 Ibid.

87 Ibid.

88 Ibid.

89 Flegal KM, Carroll MD, Ogden CL, et al. Prevalence and Trends in Obesity among U.S. Adults, 1999-2008. *Journal of the American Medical Association,* 303(3): 235-41, 2010.

90 Ogden CL, Carroll MD, Kit BK, Flegal KM. *Prevalence of Obesity in the United States, 2009-2010.* NCHS data brief, no 82. Hyattsville, MD: National Center for Health Statistics, 2012.

91 Ogden CL, Carroll MD, Curtin LR, Lamb MM and Flegel KM. Prevalence of High Body Mass Index in US Children and Adolescents, 2007-2008. *Journal of the American Medical Association.* 303(3): 242-249, 2010.

92 Ibid.

93 Ibid.

94 Trust for America's Health. *F as in Fat: How Obesity Threatens America's Future.* Washington, D.C.: Trust for America's Health, 2012.

95 Ibid.

96 Health Affects of Obesity. In *American Obesity Association.* http://www.obesity.org/subs/fastfacts/Health_Effects.shtml (accessed June 6, 2005).

97 American Cancer Society. *Cancer Facts and Figures, 2012.* Atlanta, GA: American Cancer Society, 2012.

98 Cawley J and Meyerhoefer C. The Medical Care Costs of Obesity: An Instrumental Variables Approach. *Journal of Health Economics,* 31(1): 219-230, 2012; And Finkelstein, Trogdon, Cohen, et al. "Annual Medical Spending Attributable to Obesity".

99 Cawley J, Rizzo JA, Haas K. Occupation-specific Absenteeism Costs Associated with Obesity and Morbid Obesity. *Journal of Occupational and Environmental Medicine,* 49(12):1317–24, 2007.

100 Wang YC et al. Health and Economic Burden of the Projected Obesity Trends in the USA and the UK. *The Lancet,* 378, 2011.

101 Trust for America's Health. *F as in Fat: How Obesity Threatens America's Future.* Washington, D.C.: Trust for America's Health, 2012.

102 For individuals, obesity is defined as a body mass index rate above 30. On an individual level, an adult reducing BMI by one percent is the equivalent to a weight loss of 2.2 pounds (for an adult of average weight). According to CDC, the average weight of men is 194.7 and women is 164.7. http://www.cdc.gov/nchs/fastats/bodymeas.htm

103 U.S. Centers for Disease Control and Prevention. Annual Smoking-Attributable Mortality, Years of Potential Life Lost, and Productivity Losses — United States, 2000-2004. Morbidity and Mortality Weekly Report (MMWR) 57(45), 2008.

104 Ibid.

105 U.S. Centers for Disease Control and Prevention. *Sustaining State Programs for Tobacco Control: Data Hightlights, 2006.* http://www.cdc.gov/tobacco/data_statistics/state_data/data_highlights/2006/pdfs/dataHighlights06rev.pdf. (accessed January 2013).

106 U.S Centers for Disease Control and Prevention. Current Cigarette Smoking Among Adults — United States, 2011. *MMWR* 61(44), November 9, 2012.

107 U.S. Federal Trade Commission. Cigarette Report for 2009 and 2010, 2012. Smokeless Tobacco Report for 2009 and 2010, 2012.[Data for top 5 manufacturers only.]

108 Toll of Tobacco in the United States of America. In *Campaign for Tobacco-Free Kids.* http://www.tobaccofreekids.org/research/factsheets/pdf/0072.pdf (accessed October 24, 2012).

109 U.S. Centers for Disease Control and Prevention. Current Tobacco Use Among Middle and High School Students—United States, 2011. *MMWR,* 61(31): 581-585, 2012.

110 U.S. Centers for Disease Control and Prevention. Annual Smoking-Attributable Mortality, Years of Potential Life Lost, and Productivity Losses — United States, 2000-2004. *MMWR,* 57(45), November 14, 2008.

111 Ibid.

112 U.S Department of Health and Human Services. *The Health Consequences of Smoking.* A Report of the Surgeon General, 2004.

113 Smoking & Tobacco Use: Cancer. In *U.S Centers for Disease Control and Prevention.* http://www.cdc.gov/tobacco/basic_information/health_effects/cancer/index.htm. (accessed October 24, 2012).

114 Smoking & Tobacco Use: Heart Disease and Stroke. In *U.S. Centers for Disease Control and Prevention.* http://www.cdc.gov/tobacco/basic_information/health_effects/heart_disease/index.htm. (accessed October 24, 2012).

115 Ibid.

116 U.S. Centers for Disease Control and Prevention and The Merck Company Foundation. *The State of Aging and Health in America 2007.* Whitehouse Station, NJ: The Merck Company Foundation; 2007. http://www.cdc.gov/aging/pdf/saha_2007.pdf

117 Ibid.

118 U.S. Centers for Disease Control and Prevention. *The CDC Healthy Brain Initiative: Progress 2006-2011.* Atlanta, GA: CDC, 2011.

119 Ibid.

120 National Council on Aging. Falls Prevention Fact Sheet, 2012. http://www.ncoa.org/assets/files/pdf/Fact-Sheet_Falls-Prevention.pdf (accessed October 24, 2012).

121 Ibid.

122 U.S. Centers for Disease Control and Prevention. Healthy Aging for Older Adults. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention.

123 Alley D, Lloyd J, Shaffer T, Stuart B. Changes in the Association Between Body Mass Index and Medicare Cost, 1997-2006. *Arch Intern Med,* 172(3): 277-278, 2012.

124 Centers for Disease Control and Prevention, Administration on Aging, Agency for Healthcare Research and Quality, and Centers for Medicare and Medicaid Services. *Enhancing Use of Clinical Preventive Services Among Older Adults.* Washington, D.C.: AARP, 2011.

125 Kramer M, McWilliams J, Chen H, Siminerio L. A community-based diabetes prevention program: evaluation of the group lifestyle balance program delivered by diabetes educators. *The Diabetes Educator,* 37(5): 659-668, 2011.

126 Werner D, Teufel J, Holtgrave P, Brown S. Active generations: an intergenerational approach to preventing childhood obesity. *The Journal of School Health,* 82(8): 380-386, 2012.

127 Hammes BJ and Rooney BL. Death and end-of-life planning in one Midwestern community. *Archives of Internal Medicine,* 158(4): 383-390, 1998.

128 Hickman SE, Tolle SW, Brummel-Smith K, Carley MM. Use of the POLST (Physician Orders for Life-Sustaining Treatment) program in Oregon nursing facilities: Beyond resuscitation status. *Journal of the American Geriatrics Society,* 52: 1424-1429, 2004.

129 Rose D. Reducing the risk of falls among older adults: The FallProof Balance and Mobility Program. *Current Sports Medicine Reports,* 10(3): 151-156, 2011.

130 Healy TC, Peng C, Haynes P, et al. The Feasibility and Effectiveness of Translating A Matter of Balance into a Volunteer Lay Leader Model. *Journal of Applied Gerontology,* 27(1): 34-51, 2008.

131 Wilcox S, Dowda M, Griffine S, et al. Results of the first year of active for life: Translation of 2 evidence-based physical activity programs for older adults into community settings. *American Journal of Public Health,* 96(7): 1201-1209, 2006.

132 Tomioka M, Sugihara N and Braun K. Replicating the EnhanceFitness physical activity program in Hawaii's multicultural population, 2007-2010. *Preventing Chronic Disease,* 9: E74, 2012.

133 Jette A, Lachman M, Giorgetti M, et al. Exercise—it's never too late: The strong-for-life program. *American Journal of Public Health,* 89(1): 66-72, 1999.

134 Baruth M, Wilcox S, Wegley S, et al. Changes in physical functioning in the Active Living Every Day program of the Active for Life Initiative®. *International Journal of Behavioral Medicine,* 18(3): 199-208, 2011.

135 Hughes S, Seymour R, Campbell R, et al. Long-term impact of Fit and Strong! on older adults with osteoarthritis. *The Gerontologist,* 46(6): 801-814, 2006.

136 National Council on Aging. *Using the evidence base to promote healthy aging: the model programs project.* Washington, D.C.: National Council on Aging, 2005.

137 Kunkel M, Luccia B, Moore A. Evaluation of the South Carolina seniors farmers' market nutrition education program. *Journal of the American Dietetic Association,* 103(7): 880-883, 2003.

138 Ciechanowski P, Wagner E, Schmaling K, et al. Community-integrated home-based depression treatment in older adults: A randomized controlled trial. *JAMA,* 291(13): 1569-1577, 2004.

139 Quijano LM, Stanley MA, Petersen NJ, et al. Healthy IDEAS: A depression intervention delivered by community-based case managers serving older adults. *Journal of Applied Gerontology,* 26: 139-156, 2007.

140 Spillman B, Biess J, MacDonald G. *Housing as a platform for improving outcomes for older renters.* Washington, D.C.: Urban Institute, 2012.

141 Joint Center for Political and Economic Studies. Health Policy Institute. http://www.jointcenter.org/institutes/health-policy (accessed November 2012).

142 Mead H, Cartwright-Smith L, Jones K, et al. *Racial and Ethnic Disparities in U.S. Healthcare: A Chartbook.* New York: The Commonwealth Fund, 2008. http://www.commonwealthfund.org/~/media/Files/Publications/Chartbook/2008/Mar/Racial%20and%20Ethnic%20Disparities%20in%20U%20S%20%20Health%20Care%20%20A%20Chartbook/Mead_racialethnicdisparities_chartbook_1111%20pdf.pdf. (accessed November 14, 2012).

143 Trust for America's Health and Robert Wood Johnson Foundation. *F as in Fat: How Obesity Threatens America's Future, 2011.* Washington, D.C.: Trust for America's Health, 2011. http://www.tfah.org/report/88/ (accessed July 2012).

144 Trust for America's Health. *F as in Fat: How Obesity Threatens America's Future.* Washington, D.C.: Trust for America's Health, 2012.

145 Reducing Health Disparities among Children: Strategies and Programs for Health Plans. February. In *National Institute for Healthcare Management Foundation.* http://nihcm.org/pdf/HealthDisparitiesFinal.pdf (accessed November 14, 2012).

146 Mead H, Cartwright-Smith L, Jones K, et al. *Racial and Ethnic Disparities in U.S. Health Care: A Chartbook.* The Commonwealth Fund, 2008. http://www.commonwealthfund.org/~/media/Files/Publications/Chartbook/2008/Mar/Racial%20and%20Ethnic%20Disparities%20in%20U%20S%20%20Health%20Care%20%20A%20Chartbook/Mead_racialethnicdisparities_chartbook_1111%20pdf.pdf. (accessed November 14, 2012).

147 U.S. Centers for Disease Control and Prevention. *CDC Health Disparities and Inequalities Report — United States, 2011.* Atlanta, GA: CDC, 2011. http://www.cdc.gov/mmwr/pdf/other/su6001.pdf. (accessed November 14, 2012).

148 Ibid.

149 Mead H, Cartwright-Smith L, Jones K, et al. *Racial and Ethnic Disparities in U.S. Health Care: A Chartbook.* The Commonwealth Fund, 2008. http://www.commonwealthfund.org/~/media/Files/Publications/Chartbook/2008/Mar/Racial%20and%20Ethnic%20Disparities%20in%20U%20S%20%20Health%20Care%20%20A%20Chartbook/Mead_racialethnicdisparities_chartbook_1111%20pdf.pdf. (accessed November 14, 2012).

150 Ibid.

151 Powell L, Slater S, and Chaloupka F. The Relationship between Community Physical Activity Settings and Race, Ethnicity and Socioeconomic Status. *Evidence-Based Preventive Medicine,* 1(2): 135-44, 2004.

152 Ludwig J, Sanbonmatsu L, Gennetian L, et al. Neighborhoods, Obesity, and Diabetes—A Randomized Social Experiment. *The New England Journal of Medicine,* 365(16): 1509-1519, 2011.

153 Lovasi GS, Hutson MA, Guerra M, Neckerman KM. Built Environments and obesity in disadvantaged populations. *Epidemiol Rev,* 31: 7-20, 2009.

154 Reducing Asthma Disparities. In *National Heart Lung and Blood Institute.* http://www.nhlbi.nih.gov/health/prof/lung/asthma/naci/discover/disparities.htm (accessed November 14, 2012).

155 Rosenbaum S. Women and Health Insurance: Implications for Financing Preconception Health. *Women's Health Issues,* 18(6 Suppl): S26-35, 2008.

156 Preconception Health and Health Care. In *U.S. Centers for Disease Control and Prevention.* http://www.cdc.gov/preconception/index.html (accessed November 14, 2012).

157 Ibid.

158 Ibid.

159 Trust for America's Health. *Healthy Women, Healthy Babies.* Washington, D.C.: Trust for America's Health, 2011.

160 Rosenbaum S. Women and Health Insurance: Implications for Financing Preconception Health. *Women's Health Issues,* 18(6 Suppl): S26-35, 2008.

161 National Prematurity Awareness Month. In *U.S. Centers for Disease Control and Prevention.* http://www.cdc.gov/Features/PrematureBirth/ (accessed May 19, 2011).

162 Country profile of Environmental Burden of Disease: United States of America. In *World Health Organization.* http://www.who.int/quantifying_ehimpacts/national/countryprofile/unitedstatesofamerica.pdf. (accessed October 23, 2012).

163 Asthma in the US: Growing every year. In *Centers for Disease Control and Prevention.* http://www.cdc.gov/VitalSigns/Asthma/. (accessed October 23, 2012).

164 Ibid.

165 What Causes Parkinson's? In *Parkinson's Disease Foundation.* http://www.pdf.org/en/causes#enviro. (accessed October 23, 2012).

166 Ibid.

167 Climate and Health Program: Health Effects. In *Centers for Disease Control and Prevention.* http://www.cdc.gov/climateandhealth/effects/default.htm. (accessed October 23, 2012).

168 Ebi KL, Balbus J, Kinney PL, et al. Effects of Global Change on Human Health. Chapter in: *Synthesis and Assessment Product 4.6. Analyses of the Effects of Global Change on Human Health and Welfare and Human Systems.* Ed. Gamble JL. Washington, D.C.: U.S. Environmental Protection Agency, 2-1 to 2-78.

169 Policy Brief: Health and the Environment. Organisation for Economic Co-operation and Development. February, 2008. http://www.oecd.org/health/healthpoliciesanddata/40396531.pdf. (accessed October 23, 2012).

170 Trust for America's Health. *Saving Lives and Reducing Health Care Costs: How Clean Air Rules Benefit the Nation.* Washington, D.C.: Trust for America's Health & the Environmental Defense Fund, 2011. http://healthyamericans.org/report/91/. (accessed November 14, 2012).

171 Policy Brief: Health and the Environment. Organisation for Economic Co-operation and Development. February, 2008. http://www.oecd.org/health/healthpoliciesanddata/40396531.pdf. (accessed October 23, 2012).

172 EPA's Endangerment Finding: Health Effects. In *U.S. Environmental Protection Agency.* http://www.epa.gov/climatechange/endangerment/downloads/EndangermentFinding_Health.pdf (accessed July 20, 2010).

173 Climate and Health Program: Heat Waves. In *Centers for Disease Control and Prevention.* http://www.cdc.gov/climateandhealth/effects/heat.htm. (accessed October 23, 2012).

174 *A Public Health Action Plan to Combat Antimicrobial Resistance.* Atlanta, GA: U.S. Centers for Disease Control and Prevention, 2012. http://www.cdc.gov/drugresistance/pdf/action-plan-2012.pdf (accessed October 19, 2012).

175 Updated CDC Estimates of 2009 H1N1 Influenza Cases, Hospitalizations and Deaths in the United States, April 2009 — April 10, 2010. In *U.S. Centers for Disease Control and Prevention.* http://www.cdc.gov/h1n1flu/ estimates_2009_h1n1.htm#Table%20Cumulative (accessed July 19, 2010).

176 Pertussis (Whooping Cough): Outbreaks. In *U.S. Centers for Disease Control and Prevention.* http://www.cdc.gov/pertussis/outbreaks.html (accessed November 14, 2012).

177 U.S. Centers for Disease Control and Prevention. Trends in Tuberculosis. *MMWR,* 61(11): 181-185, 2012. http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6111a2.htm (accessed November 14, 2012).

178 *National Action Plan to Prevent Healthcare-Associated Infections: Roadmap to Elimination.* Washington, D.C.: U.S. Department of Health and Human Services. http://www.hhs.gov/ash/initiatives/hai/exec_summary.html (accessed October 19, 2012).

179 Ibid.

180 *The Direct Medical costs of Healthcare-Associated Infections in U.S. Hospitals and the Benefits of Prevention.* Atlanta, GA: U.S. Centers for Disease Control and Prevention. http://www.cdc.gov/HAI/pdfs/hai/Scott_CostPaper.pdf (Accessed October 19, 2012)

181 Molinari NM, Ortega-Sanchez IR, Messonnier ML, et al. The annual impact of seasonal influenza in the US: measuring disease burden and costs. *Vaccine,* 25(27):5086-5096, 2007. http://www.businessgrouphealth.org/pdfs/Final%20Proof%20-%20Seasonal%20Influenza.pdf (Accessed October 19, 2012)

182 *March Flu Vaccination Coverage United States, 2011–12 Influenza Season.* Atlanta, GA: U.S. Centers for Disease Control and Prevention, 2012. http://www.cdc.gov/flu/professionals/vaccination/nfs-survey-march2012.htm (Accessed October 19, 2012)

183 Davis JW, Lee E, Taira DA, Chung RS. Influenza vaccination, hospitalizations, and costs among members of a Medicare managed care plan. *Med Care,* 39:1273-80, 2001. http://www.businessgrouphealth.org/benefitstopics/topics/0045.cfm?topic=0045&desc=Immunizations%20and%20Vaccines

184 World Health Organization. The WHO Policy Package to Combat Antimicrobial Resistance. April 2011. *Bulletin of the World Health Organization* 2011;89:390-392. doi: 10.2471/BLT.11.088435 http://www.who.int/bulletin/volumes/89/5/11-088435/en/index.html

185 U.S. Department of Health and Human Services, (2010). HHS Awards Nearly $100 Million in Grants for Public Health and Prevention Priorities. [Press Release]. http://www.hhs.gov/news/press/2010pres/09/20100924a.html (accessed October 2012).

186 U.S. Department of Health and Human Services, (2011). CDC Awards More than $49 Million to Strengthen State and Local Health Departments. [Press Release]. http://www.hhs.gov/news/press/2011pres/08/20110815a.html (accessed November 2011).

187 *Eliminating Healthcare-Associated Infections.* Atlanta, GA: U.S. Centers for Disease Control and Prevention. http://www.cdc.gov/hai/pdfs/toolkits/toolkit-hai-policy-final_01-2012.pdf (accessed October 19, 2012).

188 U.S. Department of Health and Human Services, (2011). HHS Awards $137 Million to States to Boost Prevention and Public Health. [Press Release]. http://www.hhs.gov/news/press/2011pres/08/20110825a.html (accessed November 2011).

189 Recommended Preventive Services. In *Healthcare.gov.* www.healthcare.gov/law/resources/regulations/prevention/recommendations.html (accessed November 14, 2012).

190 The "Strategies to Address Antimicrobial Resistance (STAAR)" Act. In *Infectious Disease Society.* http://www.idsociety.org/uploadedFiles/IDSA/Policy_and_Advocacy/Current_Topics_and_Issues/Antimicrobial_Resistance/Strengthening_US_Efforts/STAAR_Act/STAAR%20Act%20Brief%20Summary.pdf (accessed November 14, 2012).

191 Interagency Taskforce on Antimicrobial Resistance. *A Public Health Action Plan to Combat Antimicrobial Resistance,* 2012. http://www.cdc.gov/drugresistance/pdf/action-plan-2012.pdf (accessed November 14, 2012).

192 Pew Campaign on Human Health and Industrial Farming. In *Pew Health.* http://www.pewhealth.org/projects/pew-campaign-on-human-health-and-industrial-farming-85899367226 (accessed October 2012).

193 Statement of the Infectious Diseases Society of America (IDSA). " Promoting Anti-Infective Development and Antimicrobial Stewardship through the U.S. Food and Drug Administration Prescription Drug User Fee Act (PDUFA) Reauthorization." March 8, 2012. http://www.idsociety.org/uploadedFiles/IDSA/Policy_and_Advocacy/Current_Topics_and_Issues/Advancing_Product_Research_and_Development/Bad_Bugs_No_Drugs/Statements/IDSA%20PDUFA%20GAIN%20Testimony%20030812%20FINAL.pdf (Accessed October 2012)

194 Trust for America's Health. *Ready or Not? 2011.* Washington, D.C.: Trust for America's Health, 2011.

195 Ibid.

196 Adjusted for inflation. To improve the comparability of the budget data between FY 2005 and FY 2012, TFAH adjusted the FY 2005 numbers for inflation (using the U.S. Dept. of Labor Bureau of Labor Statistics Consumer Price Index Inflation Calculator at http://www.bls.gov/data/inflation_calculator.htm).

197 *The Commissioned Corps' Response to Hurricanes Katrina and Rita.* Washington, D.C.: Office of the Inspector General, U.S. Department of Health and Human Services, 2007, http://oig.hhs.gov/oei/reports/oei-09-06-00030.pdf (accessed October 4, 2007).

198 Pappas S. "Hurricane Irene Will Make 2011 a Record Disaster Year." *LiveScience.com.* August 2011. http://news.yahoo.com/hurricane-irene-2011-record-disaster-142603576.html (accessed November 2011).

199 Watson T. "Oil Spill Kills Jobs, Shrinks Incomes and Hurts Industry." *USA Today* August 5, 2010. http://www.usatoday.com/money/economy/2010-08-04-oil-spill-economic-impact_N.htm (accessed November 19, 2010).

200 Lengel A. "Little Progress In FBI Probe of Anthrax Attacks." *The Washington Post* September 16, 2005.http://www.washingtonpost.com/wp-dyn/content/article/2005/09/15/AR2005091502456_pf.html. (accessed November 18, 2010).

201 As the clear-up begins, a look at Hurricane Sandy's likely economic toll, 2012. In *IHS.* http://www.ihs.com/products/global-insight/industry-economic-report.aspx?id=1065972961

202 Kunreuther H and Erwann MK. *H.R. 4634: Terrorism Insurance Backstop Extension Act of 2004.* Washington, D.C.: Congressional Budget Office Cost Estimate, November 19, 2004.

203 Ibid.

204 CDC Estimates of Foodborne Illness in the US — 2011. In *U.S. Centers for Disease Control and Prevention.* http://www.cdc.gov/foodborneburden/2011-foodborne-estimates.html (accessed October 2012).

205 Lindsay JA. Chronic sequelae of foodborne disease. *Emerg Infect Dis.,* 3(4): 443-52, 2007.

206 U.S. Centers for Disease Control and Prevention, (2011). No Progress in Salmonella During Past 15 Years: Food safety annual report card targets hard-to-prevent infection. [Press Release] http://www.cdc.gov/media/releases/2011/p0607_vitalsigns.html (accessed November 14, 2012).

207 Bottemiller H. "Foodborne Illness Victims Call on Obama to Release FSMA Rules." *Food Safety News* July 18, 2012. http://www.foodsafetynews.com/2012/07/foodborne-illness-victims-call-on-obama-to-release-fsma-rules/ (accessed November 14, 2012).

208 Pew Campaign on Human Health and Industrial Farming. In *Pew Health.* http://www.pewhealth.org/projects/pew-campaign-on-human-health-and-industrial-farming-85899367226 (accessed October 2012).

209 Consumers Union, (2012). Concerning levels of known human carcinogen found in tests of more than 200 samples; Government data shows eating one rice food item can increase arsenic exposure by 44 percent. [Press Release]. http://www.consumersunion.org/pub/core_food_safety/018472.html (accessed November 14, 2012).

1730 M Street, NW, Suite 900
Washington, DC 20036
(t) 202-223-9870
(f) 202-223-9871