



## Cutting Lag Time in Implementing Findings *JAMA* Authors Discuss Research Findings with Health Care Practitioners During Conference Calls

Shortening the lag time between published research and medical practice

### SUMMARY

The staffs of the [Institute for Healthcare Improvement](#) and the *Journal of the American Medical Association (JAMA)* conducted 15 monthly telephone conference calls in which authors of recently published *JAMA* articles discussed their research findings with health care practitioners.

The purpose was to reduce the gap between available scientific knowledge and everyday practice. Practitioners were able to register for the calls without charge and participate on a toll-free line. The project included participant surveys to evaluate the impact of the calls.

### Key Results

- A total of 3,517 individuals participated in the 15 conference calls conducted monthly from March 2005 through May 2006.
- The number of participants varied from call to call—from 30 for a discussion of hernia repair to 1,061 for an article on health care performance measurement.
- Of 119 participants who completed a three-month follow-up survey, 43 percent said they had made a change in their professional practice based on the Author in the Room discussion. Ninety percent said they found the discussion very valuable or somewhat valuable to their practice.

### Funding

The Robert Wood Johnson Foundation (RWJF) supported the call series—entitled *Author in the Room*—and evaluation from September 2004 through September 2006 with a \$216,296 grant (ID# 050951) to the institute. The monthly calls continued with *JAMA* funding when the RWJF grant ended.

## THE PROBLEM

The scientific literature is full of peer-reviewed research identifying innovative medical and health care practices. However, staff of the Institute for Healthcare Improvement in Cambridge, Mass., believed that too little of this knowledge was making its way into daily use.

Even when innovations are implemented successfully in one location, they often disseminate slowly—if at all," Donald Berwick, MD, MPP, the institute's president, wrote in a 2003 [article](#) in *JAMA*.

Staff of the institute—a nonprofit organization founded in 1991 to improve the quality of health care—cited the following as an example:

Despite published, peer-reviewed evidence that acute otitis media (middle ear inflammation) can be managed safely in children without antibiotics, the condition remains one of the most frequent reasons for prescribing antibiotics for children, according to the institute.

The staffs of the institute and *JAMA* were interested in undertaking a collaborative project to reduce this gap between published knowledge and everyday practice.

## THE PROJECT

The staffs of the Institute for Healthcare Improvement and *JAMA* conducted 15 monthly telephone conference calls in which authors of recently published *JAMA* articles discussed their research findings with health care practitioners.

Practitioners were able to register for the calls without charge and participate on a toll-free line. In addition to the author, each call featured a moderator and a clinician skilled as a facilitator. The project included participant surveys to evaluate the impact of the calls.

RWJF supported the call series—entitled *Author in the Room*—and evaluation from September 2004 through September 2006 with a \$216,296 grant (ID# 050951) to the institute.

### Activities

The collaborative project team:

- Identified *JAMA* articles appropriate for the calls—articles that were about to be published and contained innovative ideas ready for use in practice.
- Contacted the authors to solicit their participation and schedule the calls, typically a month after publication.

- Engaged a professional moderator to lead each call, including a question-and-answer period at the end, and a clinician skilled in coaching practitioners in making quality improvements.
- Hired a commercial call vendor, [iLinc Communications](#), to set up the toll-free number and handle technical aspects of the calls.
- Enabled interested individuals to register for calls ahead of time on the institute website and receive an e-mail with the toll-free number.

## Evaluation

To evaluate the impact of the conference calls, the institute and *JAMA* staffs selected a team from two research organizations based at Massachusetts General Hospital in Boston: the Center for Adolescent and Child Health Policy and the Institute for Health Policy.

The evaluation relied on three surveys administered to participants via e-mails sent by the call vendor:

- The first survey, conducted when participants registered for a call, collected demographic data and information on professional experience.
- The second, administered soon after the call's conclusion, asked participants about their intent to change practice and their knowledge and attitude toward implementing change.
- The third, e-mailed three months after the call, sought to assess self-reported practice change as a result of the call. (The evaluation team attempted to contact nonrespondents by phone within four weeks of the third survey.)

The survey effort experienced data-collection difficulties—mostly technical in nature—in conjunction with the initial conference calls. As a result, the project team reported survey results for only five calls—numbers 8–12—of the 15 conducted.

## Communications

Catherine D. DeAngelis, MD, MPH, *JAMA* editor-in-chief, and Berwick, the institute's president, co-authored a *JAMA* editorial in February 2005 announcing the launch of the Author in the Room series and explaining its purpose. (See the [Bibliography](#).)

Ads in *JAMA* publicized each upcoming call, and the two organizations invited participation through announcements on their websites and electronic mailings. *JAMA* made the featured article available free of charge through a link posted on the institute's website.

The project team took steps to expand the reach of the conference calls beyond the actual participants. The team:

- Made audio recordings of the calls available free of charge through the *JAMA* and Institute for Healthcare Improvement websites.
- Established a forum on the institute website for online comments about the calls.
- Posted key learning points from each call on the institute website with a link to the relevant article on the *JAMA* website.

## RESULTS

In an October 2006 report to RWJF, the institute for Healthcare Improvement provided the following participation data for the 15 monthly conference calls, which were conducted from March 2005 through May 2006:

- **A total of 3,517 individuals participated in the 15 calls.** Callers used a total of 1,609 phone lines, with some lines having multiple listeners. Each caller reported the number of people on that line, providing the participation total. (See [Appendix 1](#) for participation data on each call plus the article title and author.)
- **The number of participants varied from call to call—from 30 for a discussion of hernia repair to 1,061 for an article on health care performance measurement.** Seven of the 15 calls surpassed the project team's target of 200 participants per call.
- **A total of 2,599 individuals registered ahead of time to take part in the calls.** The number varied from 59 for the call on hernia repair to 635 for the call on performance measurement.
- **There were 842 audio file downloads of the calls plus 1,097 downloads in podcast format (for use in a digital player).** The online discussion forum drew 15 posted comments and 481 views.

The following were among the survey results reported by the institute for the five monthly calls (October 2005–February 2006) for which they analyzed data:

- **Of the 336 individuals who were surveyed at the time they registered to participate in one of the five calls—and did in fact participate—52 percent said they were either a physician or nurse.** Thirty-nine percent said they were involved in direct patient care, while 19 percent described themselves as managers and 15 percent as executives.
- **Of 207 participants who completed the first post-call survey, 85 percent said they felt ready to implement the changes discussed in the call.** Forty-four percent said they planned to initiate changes, while 38 percent said they were not sure they would implement changes.

- **Of 119 participants who completed the three-month follow-up survey, 43 percent said they had made a change in their professional practice based on the *Author in the Room* discussion.** Ninety percent said they found the discussion very or somewhat valuable to their practice.

For additional survey results reported to RWJF, see [Appendix 2](#).

## CONCLUSIONS

According to the institute's report to RWJF:

- ***Author in the Room* "was an effective model in improving the knowledge and understanding of motivated individuals on how to implement changes in a given area.** It is difficult to interpret with the current evaluation strategy whether the program can achieve long-term changes in clinical practice. However, it certainly jump starts the change process."

## LESSONS LEARNED

1. **The broader the conference call topic, the bigger the audience is likely to be.** The most successful *Author in the Room* calls tended to be those that addressed a condition affecting a large number of patients and involving change strategies that were not overly controversial or complex. (Project Manager)

## AFTERWARD

When the RWJF grant ended, *JAMA* and the Institute for Healthcare Improvement continued the monthly conference calls with funding from *JAMA*.

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## APPENDIX 1

### Author in the Room Conference Calls

*(Current as of the end date of the program; provided by the program's management; not verified by RWJF.)*

The Institute for Healthcare Improvement included the following information for the 15 conference calls in a report to RWJF:

#### **Program Month: March 2005**

**Article Title:** Effects of Estrogen with and without Progestin Therapy on Urinary Incontinence

**Author:** Susan L. Hendrix, DO

**Number Registered:** 141

**Number of Actual Phone Lines:** 87

**Number of Reported Listeners:** 113

#### **Program Month: April 2005**

**Article Title:** Outcomes in Hypertensive Black and Nonblack Patients Treated with Chlorthalidone; Amlodipine and Lisinopril

**Author:** Jackson T. Wright, Jr. MD, PhD

**Number of Registered Participants:** 121

**Number of Actual Phone Lines:** 72

**Number of Reported Listeners:** 163

#### **Program Month: May 2005**

**Article Title:** Follow-up Testing Among Children with Elevated Screening Blood Lead Levels

**Author:** Alex R. Kemper, MD, MPH, MS

**Number of Registered Participants:** 137

**Number of Actual Phone Lines:** 91

**Number of Reported Listeners:** 196

#### **Program Month: June 2005**

**Article Title:** Update on the Treatment of Tuberculosis and Latent Tuberculosis Infection

**Author:** Henry M. Blumberg, MD

**Number of Registered Participants:** 198

**Number of Actual Phone Lines:** 137

**Number of Reported Listeners:** 281

#### **Program Month: July 2005**

**Article Title:** Combined Tetanus, Diphtheria, and 5-Component Pertussis Vaccine for Use in Adolescents and Adults

**Author:** Michael E. Pichichero, MD

**Number of Registered Participants:** 206

**Number of Actual Phone Lines:** 134

**Number of Reported Listeners:** 282

#### **Program Month: August 2005**

**Article Title:** Symptom Experience after Discontinuing Use of Estrogen Plus Progestin

**Author:** Judith Ockene, PhD, MEd, and David Barad, MD, MS

**Number of Registered Participants:** 73

**Number of Actual Phone Lines:** 41

**Number of Reported Listeners:** 58

#### **Program Month: September 2005**

**Article Title:** Impact of Varicella Vaccination on Health Care Utilization

**Author:** Rafael Harpaz, MD, MPH, and Fangjun Zhou, PhD

**Number of Registered Participants:** 93

**Number of Actual Phone Lines:** 54

**Number of Reported Listeners:** 85

#### **Program Month: October 2005**

**Article Title:** Evaluation and Management of Laryngopharyngeal Reflux

**Author:** Charles N. Ford, MD

**Number of Registered Participants:** 69

**Number of Actual Phone Lines:** 22

**Number of Reported Listeners:** 31

**Program Month: November 2005**

**Article Title:** Early Mortality among Medicare Beneficiaries Undergoing Bariatric Surgical Procedures

**Author:** David R. Flum, MD

**Number of Registered Participants:** 219

**Number of Actual Phone Lines:** 132

**Number of Reported Listeners:** 331

**Program Month: December 2005**

**Article Title:** Clinical Decision Support and Appropriateness of Antimicrobial Prescribing

**Author:** Matthew H. Samore, MD

**Number of Registered Participants:** 204

**Number of Actual Phone Lines:** 114

**Number of Reported Listeners:** 242

**Program Month: January 2006**

**Article Title:** Gastric Acid-Suppressive Agents and the Risk of Community-Acquired *Clostridium difficile*-Associated Disease

**Author:** Sandra Dial, MD M.Sc.

**Number of Registered Participants:** 125

**Number of Actual Phone Lines:** 90

**Number of Reported Listeners:** 213

**Program Month: February 2006**

**Article Title:** Watchful Waiting vs. Repair of Inguinal Hernia in Minimally Symptomatic Men

**Author:** Olga Jonasson, MD

**Number of Registered Participants:** 59

**Number of Actual Phone Lines:** 21

**Number of Reported Listeners:** 30

**Program Month: March 2006**

**Article Title:** Intravenous Morphine and Topical Tetracaine for Treatment of Pain in Preterm Neonates Undergoing Central Line Placement

**Author:** Anna Taddio, PhD

**Number of Registered Participants:** 141

**Number of Actual Phone Lines:** 87

**Number of Reported Listeners:** 256

**Program Month: April 2006**

**Article Title:** All-or-None Measurement Raises the Bar on Performance

**Author:** Donald Berwick, MD, M.P.P. and Thomas Nolan, PhD

**Number of Registered Participants:** 635

**Number of Actual Phone Lines:** 428

**Number of Reported Listeners:** 1,061

**Program Month: May 2006**

**Article Title:** A 71-Year-Old Woman Contemplating a Screening Colonoscopy

**Author:** William Taylor, MD

**Number of Registered Participants:** 178

**Number of Actual Phone Lines:** 99

**Number of Reported Listeners:** 175

## APPENDIX 2

### Additional Survey Results

*(Current as of the end date of the program; provided by the program's management; not verified by RWJF.)*

A report to RWJF from the Institute for Healthcare Improvement included the following additional data from surveys of participants in the five conference calls conducted October 2005–February 2006:

- **Of 336 individuals who were surveyed at the time they registered to participate in one of the five calls and did in fact participate:**
  - 61 percent worked in a hospital setting.
  - 27 percent described themselves as quality professionals.

- 81 percent indicated they were "very experienced" or "somewhat experienced" with quality improvement initiatives.
- 70 percent said they were either "very experienced" or "somewhat experienced" in the topic being discussed.
- **Of the 207 (62 percent) of these participants who completed the first post-call survey:**
  - The percentage saying they intended to change practice following the call ranged for the five calls from 28 percent to 58 percent.
  - 91 percent felt the call improved their understanding of the topic and how to initiate change.
  - 91 percent said they would recommend the Author in the Room program to colleagues.
  - 87 percent planned to participate in future calls.

## BIBLIOGRAPHY

*(Current as of date of the report; as provided by the grantee organization; not verified by RWJF; items not available from RWJF.)*

### Articles

Berwick DM, and DeAngelis CD. "Author in the Room: A Teleconference Series to Accelerate Health Care Improvement." *Journal of the American Medical Association*, 293(8): 1004, 2005. Available [online](#).