IMPLEMENTATION LABORATORIES AND META-LABORATORIES: RATIONALE, AIMS AND PROGRESS

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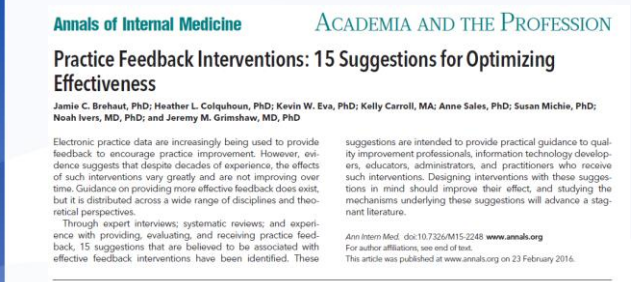
HOW TO OPTIMISE AUDIT AND FEEDBACK



Annals of Internal Medicine — ACADEMIA AND THE PROFESSION

Practice Feedback Interventions: 15 Suggestions for Optimizing Effectiveness

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Electronic practice data are increasingly being used to provide feedback to encourage practice improvement. However, evidence suggests that despite decades of experience, the effects of such interventions vary greatly and are not improving over time. Guidance on providing more effective feedback does exist, but it is distributed across a wide range of disciplines and theoretical perspectives.

Through expert interviews; systematic reviews; and experience with providing, evaluating, and receiving practice feedback, 15 suggestions that are believed to be associated with effective feedback interventions have been identified. These suggestions are intended to provide practical guidance to quality improvement professionals, information technology developers, educators, administrators, and practitioners who receive such interventions. Designing interventions with these suggestions in mind should improve their effect, and studying the mechanisms underlying these suggestions will advance a stagnant literature.

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- Be provided multiple times
- Present feedback as soon as possible
- Provide individual rather than general data
- Include clear comparators that reinforce desired behaviour change
- Support an action perceived to be a priority for recipients
- Recommend actions that can improve and are under control of the recipient
- Recommend a specific action
- Tailor feedback interventions based on situation-specific barriers
- Closely link visual display and summary message
- Be presented in multiple ways
- Minimize cognitive load
- Address barriers that prevent use of the feedback
- Provide short, actionable messages followed by more detail
- Address credibility of the information
- Increase motivation to change practice
- Encourage social construction of feedback rather than passive delivery

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IMPLEMENTATION LABORATORIES TO OPTIMISE AUDIT AND FEEDBACK

Reducing research waste with implementation laboratories

The Lancet REWARD (REduce research Waste And Reward Diligence) campaign has encouraged researchers to examine how they work and make efforts to reduce waste and maximise efficiency. Research waste is undermining efforts to improve the effectiveness of health systems. A consistent finding in health services research is inappropriate variations in care and evidence-practice gaps. Implementation science—the study of methods to promote the systematic uptake of clinical research findings and other evidence-based practices into routine practice[1]—can inform health systems on how to reliably improve care and outcomes. However, the potential for implementation science to improve the effectiveness of health systems will not be realised until research waste in the field is systematically addressed.

A solid evidence base shows the effectiveness of common implementation strategies—eg, audit and feedback,[2] point of care reminders,[3] educational meetings,[4] and educational outreach[5]—but with substantial unexplained heterogeneity. Yet many current studies that evaluate implementation strategies against control create research waste because they do not build upon the current evidence base or address the key questions to advance the field. For example, for more than a decade we have known that audit and feedback is an effective way to improve care,[2] but researchers continue to undertake trials of audit and feedback versus usual care, testing whether a particular version of audit and feedback can work in a particular setting and for a particular purpose. Such evaluations rarely incorporate relevant theory or best practice[6] in the design and delivery of the intervention and do not address the question of how to optimise the effectiveness of audit and feedback. As a result, there is insufficient evidence on how best to design a new audit and feedback intervention; the same is true for many other implementation strategies.[7,8] Such failures represent substantial waste of scarce implementation research resources and promulgate evidence-practice gaps that incur individual and societal harms.

Health systems have a need for generalisable evidence about how to achieve the greatest possible impact with their quality improvement initiatives.[9] Implementation intervention developers must make many decisions about content, format, and delivery of their intervention; even small modifications in these areas could influence the effectiveness of the intervention.[6] Since the question of whether many common implementation strategies can work has been answered, the time has come for a shift to a comparative-effectiveness model for implementation research.[9] Head-to-head trials that test different ways of designing and delivering implementation strategies are needed to provide the evidence base for health system decision makers. Direct comparisons of implementation interventions will more efficiently move the field forward than the current approach involving cumulating evidence from fairly small trials for indirect analyses in systematic reviews. However, the required sample sizes for such research are difficult to achieve unless the research is embedded within existing, large-scale initiatives.

A promising solution is to develop implementation laboratories that involve close collaboration between health systems delivering implementation strategies at scale and research teams. Implementation laboratories provide an opportunity to kick-start the field by ensuring that scholars meet both applied and scientific goals of understanding what works better and why. Such research can address health systems' priorities and produce generalisable knowledge about factors—context,

For more on the Lancet REWARD campaign see http://www.thelancet.com/campaigns/efficiency

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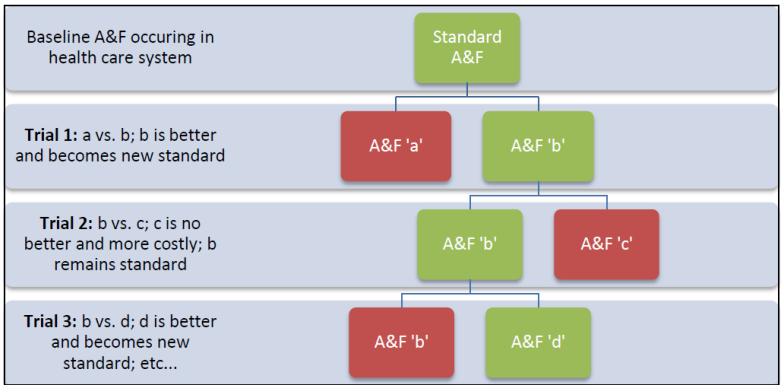

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IMPLEMENTATION LABORATORIES TO OPTIMISE AUDIT AND FEEDBACK

Role	Health system	Researcher
Develop priorities	X	
Develop prototype A&F	X	X
Delivery of A&F	X	
Data collection	X	
Analysis		X
Interpretation	X	X

Opportunities to seek research funding to cover additional marginal costs of research

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IMPLEMENTATION LABORATORIES TO OPTIMISE AUDIT AND FEEDBACK

- Benefits for health system – learning organisation; demonstrable improvements in its quality improvement activities; linkages to academic experts
- Benefits for implementation science – ability to test important (but potentially subtle) variations in audit and feedback that may be important effect modifiers

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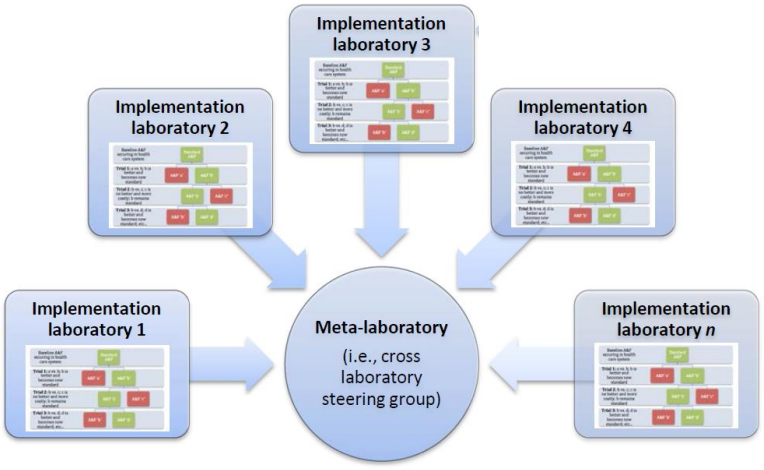
IMPLEMENTATION META-LABORATORIES



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