

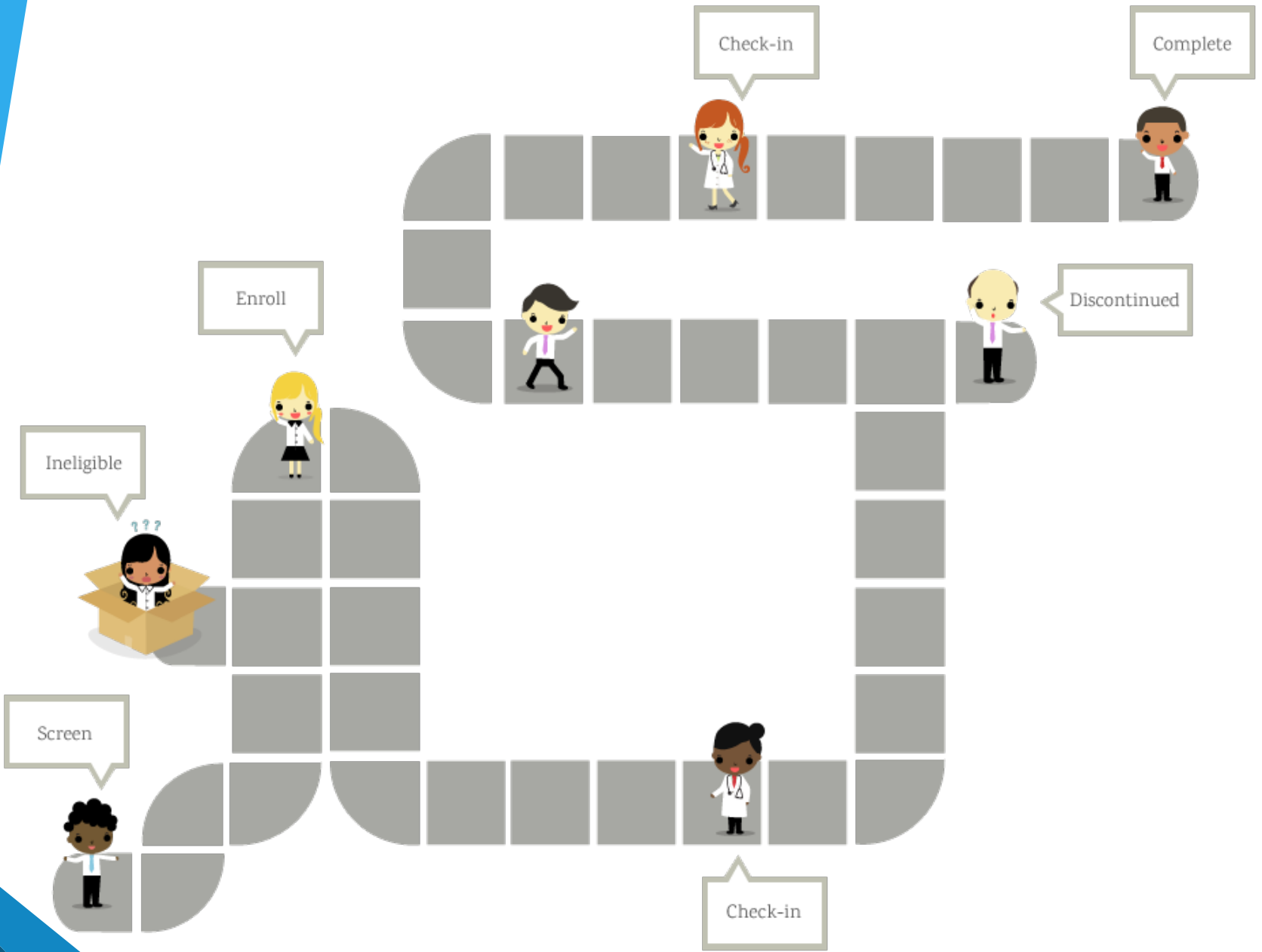


Opportunities for Future Formative Work

Developing new approaches within the microbicide research agenda

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Associate Professor of Health Behavior
Director, Center for Sexuality & Health Disparities
University of Michigan School of Public Health

MTN BRWG Member



Menu of intervention options to promote adherence

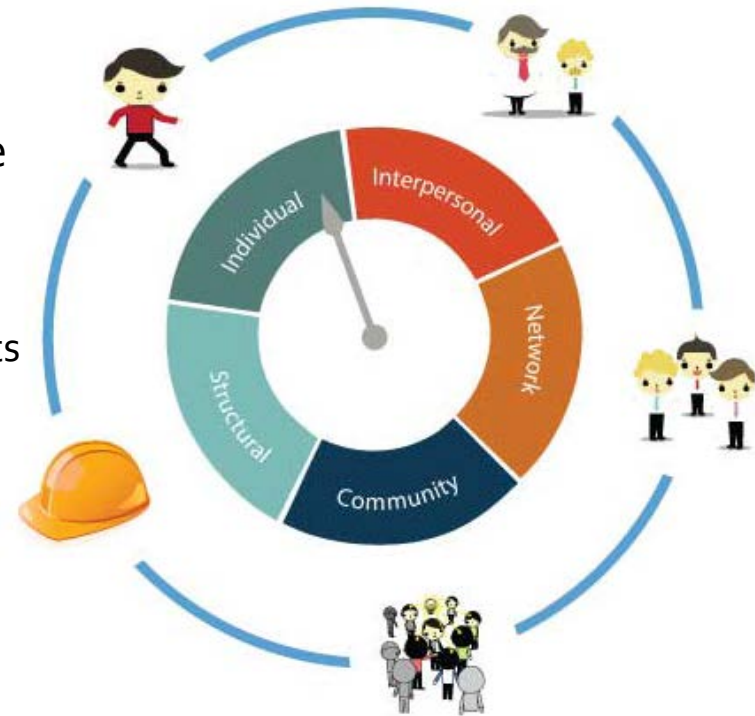


- A one-size intervention won't solve our problems...
- How could we increase user buy-in?
 - Autonomy
 - Competence
 - Relatedness to others
 - Social context



Menu of intervention options to promote adherence

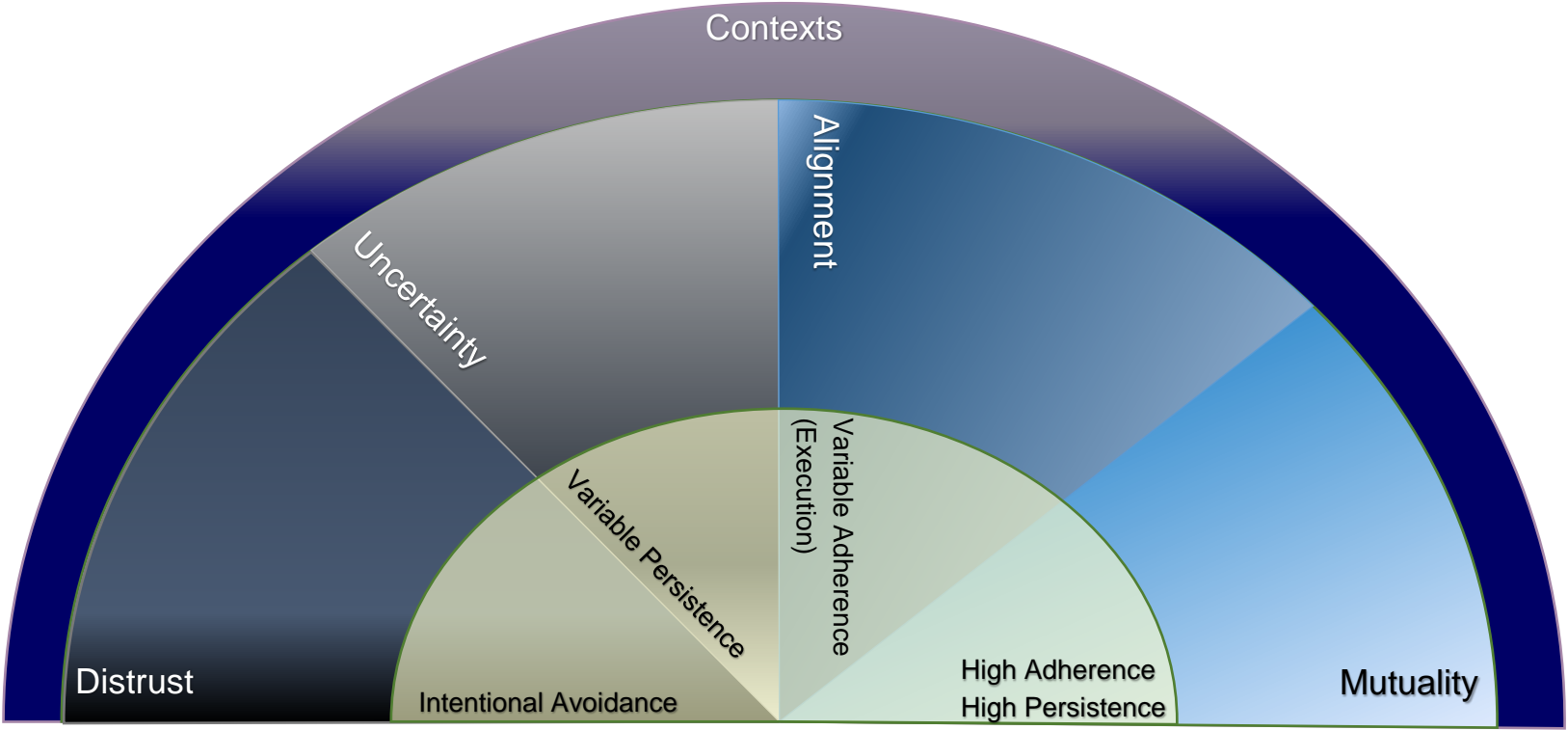
- Deploy intervention components in real-time to address adherence-related barriers during trial.
 - Promote multi-level intervention components rather than an intervention “package”
- Optimize intervention performance and novelty




Specific needs addressed over the participants' lives in/out of the trial

Awareness	Contemplation	Preparation	Action	Adherence
<ul style="list-style-type: none">• Provide education• Show that positive factors outweigh negative ones• Find ways to motivate	<ul style="list-style-type: none">• Reinforce positive beliefs• Provide skills• Address concerns & barriers	<ul style="list-style-type: none">• Check motives• Provide specific skills• Offer coping strategies	<ul style="list-style-type: none">• Provide support• Reinforce success• Remind of positive outcomes	<ul style="list-style-type: none">• Remind of positive outcomes achieved• Build relapse skills

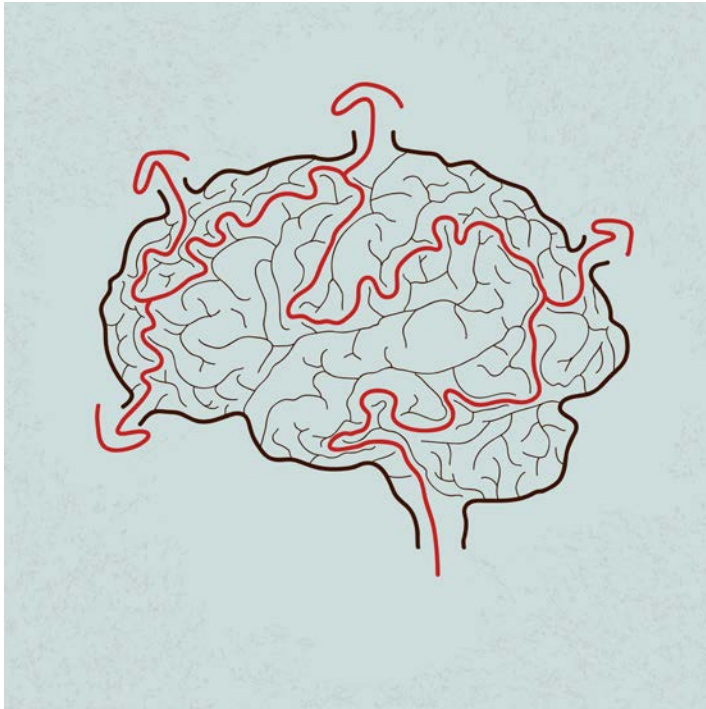
Models of Mutuality or Citizen Participation





How can we optimize “real-time” monitoring and feedback, and deliver behavioral solutions simultaneously?

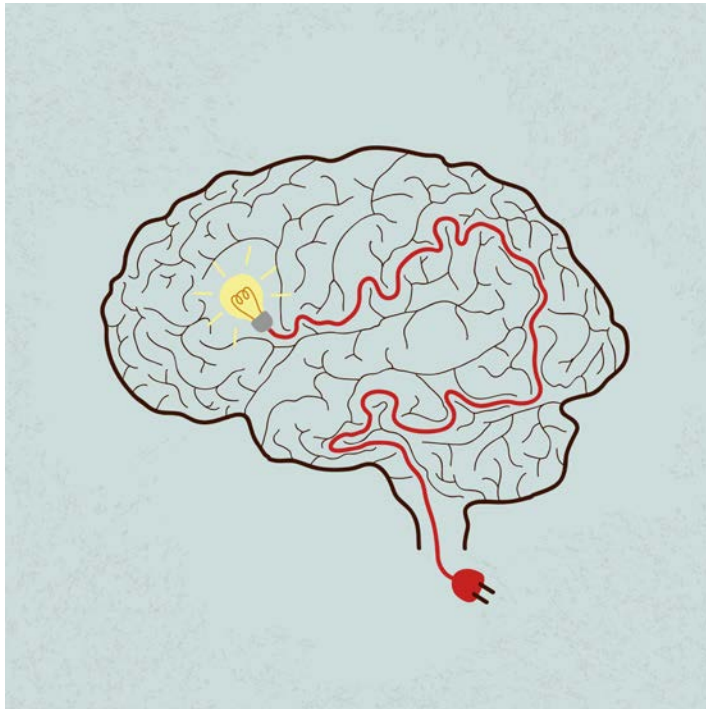
Maximizing the power of tailoring technologies



“Tailoring” refers to:

1. Assessment of individual characteristics relevant to the behavior,
2. Algorithms use the data to generate intervention messages relevant to the specific needs of the user
3. Feedback protocols delivers content to the user in a clear, vivid format.

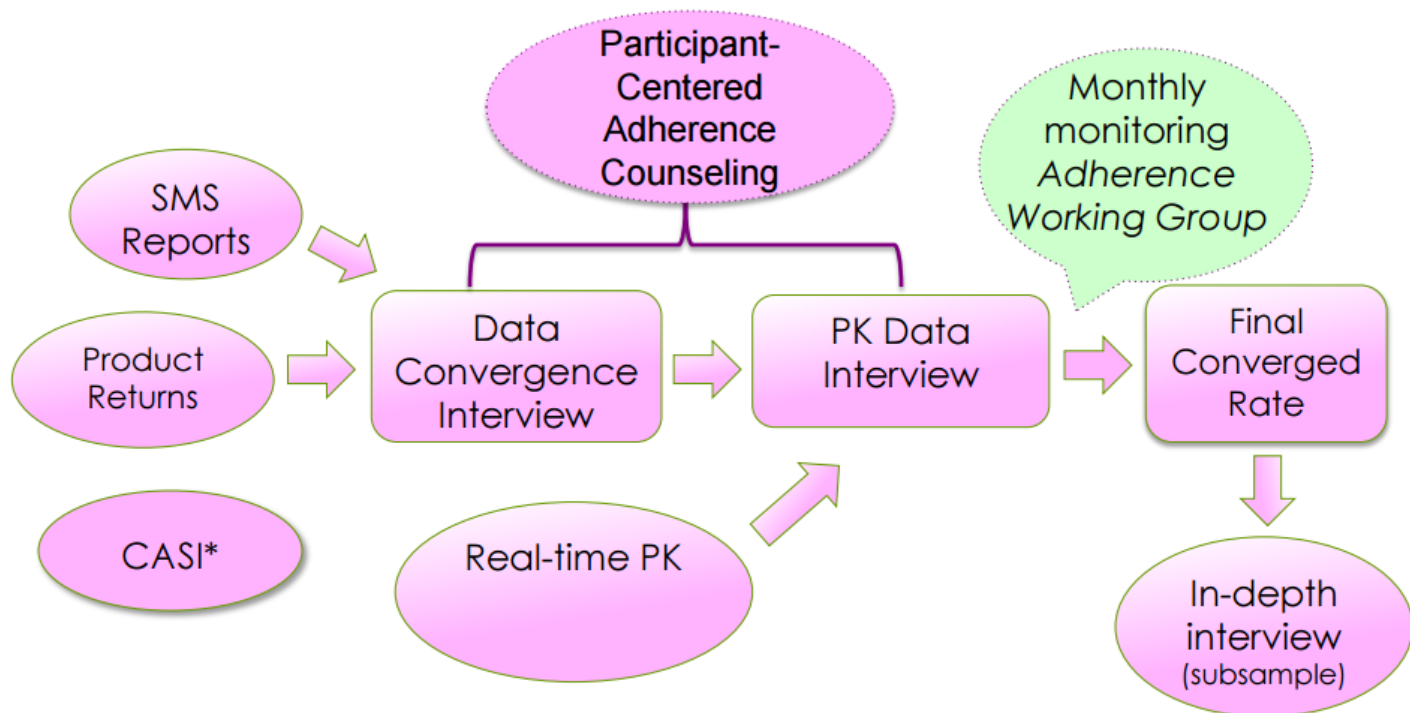
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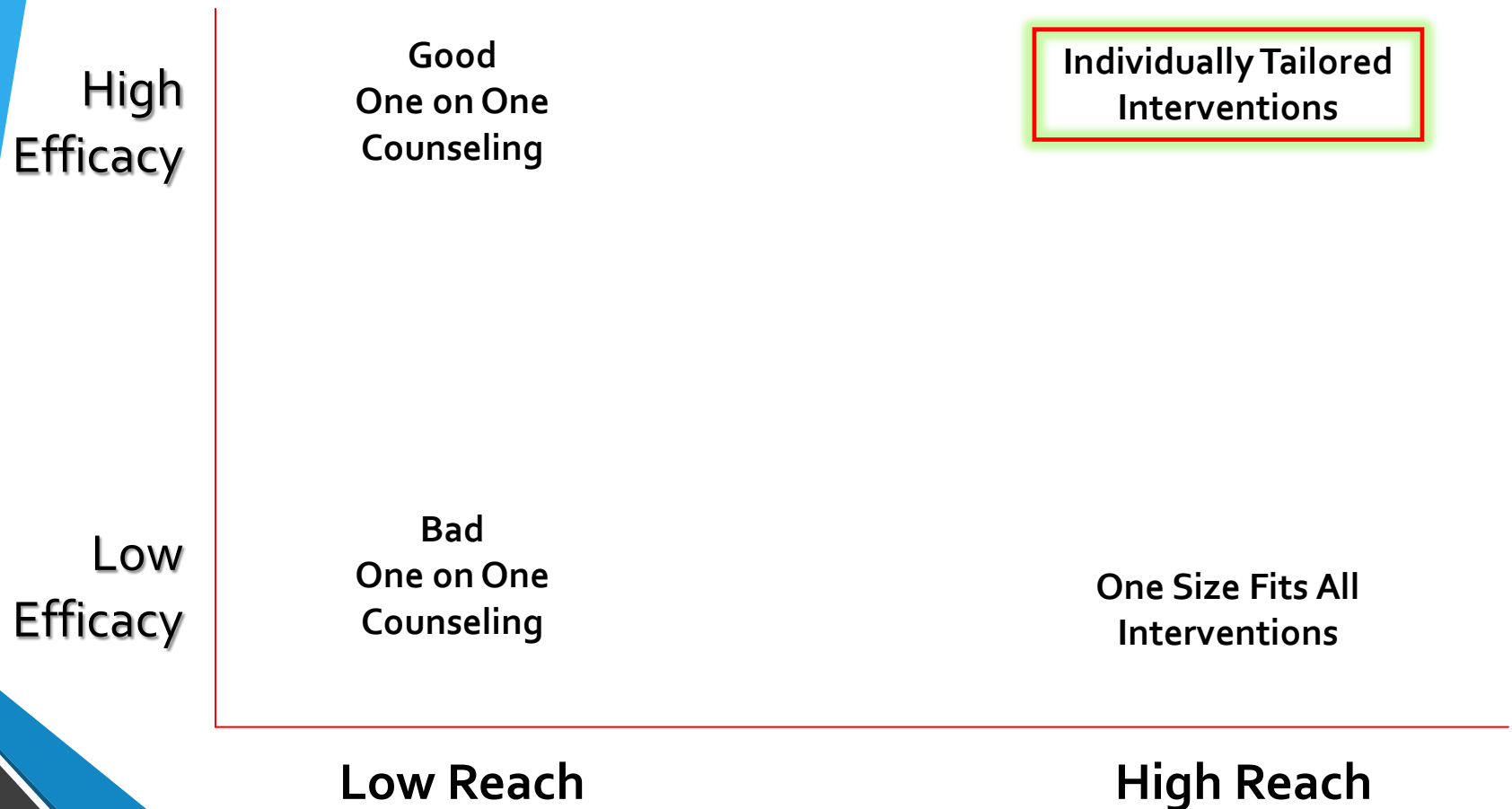
Individualized person-centered counseling shows promise, yet is it cost-friendly and scalable?



*CASI data reviewed at end of study

Adapted from Pool et al. (2010) *PLoS One*

Impact of Behavioral Interventions



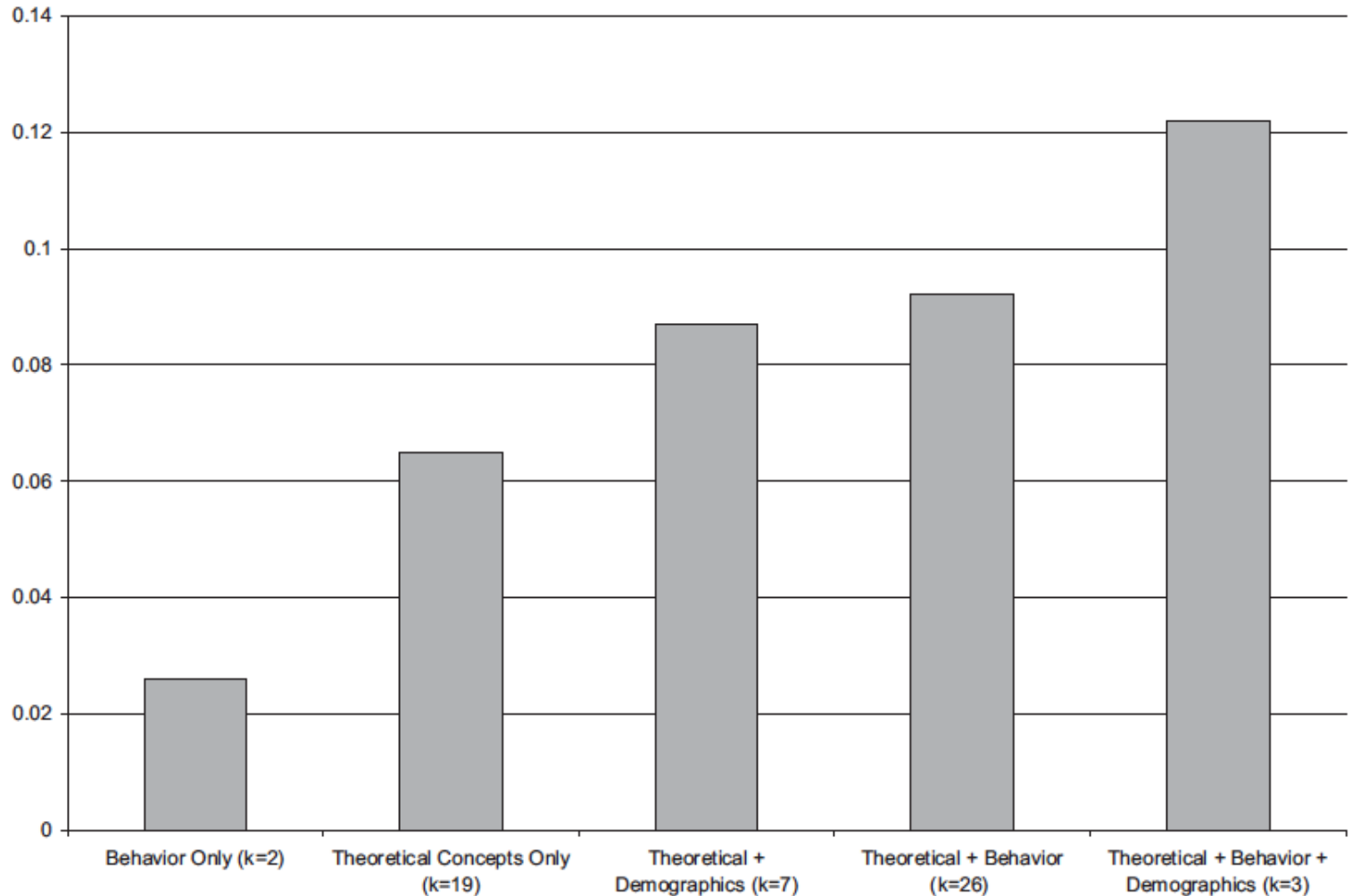
Meta-analyses and Reviews of Tailored Interventions

- Significant positive impact on health outcomes:

- Breast cancer
- Diet, exercise, physical activity
- Alcohol abuse
- Smoking cessation
- Obesity
- Diabetes
- Mental health
- Asthma/COPD
- Menopause/HRT
- HIV/STI Testing
- Condom Use

Populations	Settings	Channel
Adolescents	Primary	Stand-
Smokers	Care	alone
Caregivers	Settings	Computer
Low literacy	Grocery	Web-
Low income	Stores	based
Hypertensive pts	Classrooms	Telephone
Heart Failure pts	Worksites	
Parents	In the Home	
Asthma pts		
Pts in recovery		
Adults		

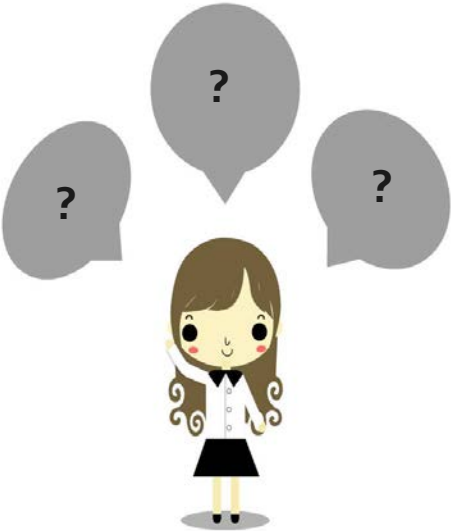
Effect Sizes by Tailoring Factors Combos



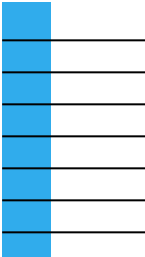
Noar SM, Benac CN, Harris MS. Does tailoring matter? Meta-analytic review of tailored print health behavior change interventions. *Psychol Bull.* 2007;133(4):673–693. doi:10.1037/0033-2909.133.4.673.

One size (does not) fit all...

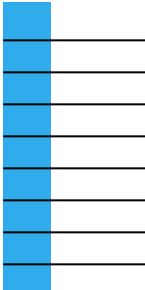
Message Library



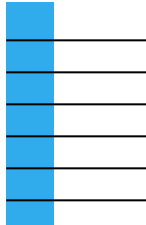
Barriers



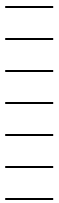
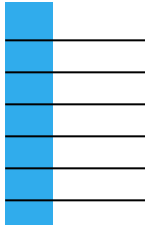
Motives



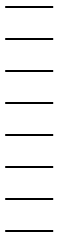
Support



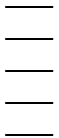
Knowledge



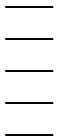
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Untailored message

Message Library

Information needs



Self-efficacy



Adherence skills



Relationship challenges



Decision Making



User Choices

red



blue



green



aqua, gray



orange



Tailored Message



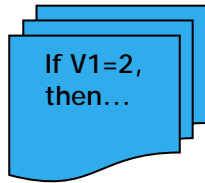
One size does not fit all...

User Data



V1=2
V2=4
V3=2
V4=1
.
.
.

Tailoring Algorithm

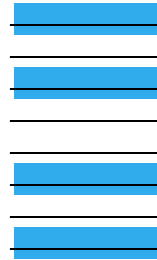


Message Library

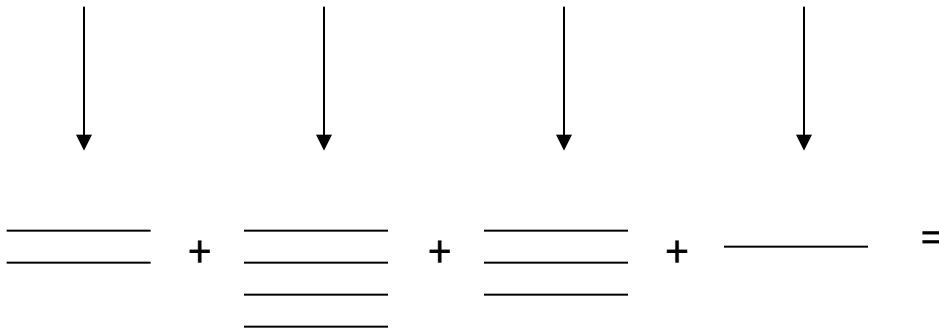
Motives



Barriers



Prior attempts Knowledge



Tailored message

Responding to on-going challenges through tailoring

- Use existing CASI and IDI data from prior trials to create a “data dictionary” that allows us to create customized and personalized feedback as users have varying challenges and stressors.
- Develop content that foresees challenges/barriers and catalyzers/enabling factors.
- Push printed, face-to-face or e-delivered (web or mobile) content that encourages self-determination and intrinsic motivation through personalization (messages, images) and dynamic learning.

Call to Action

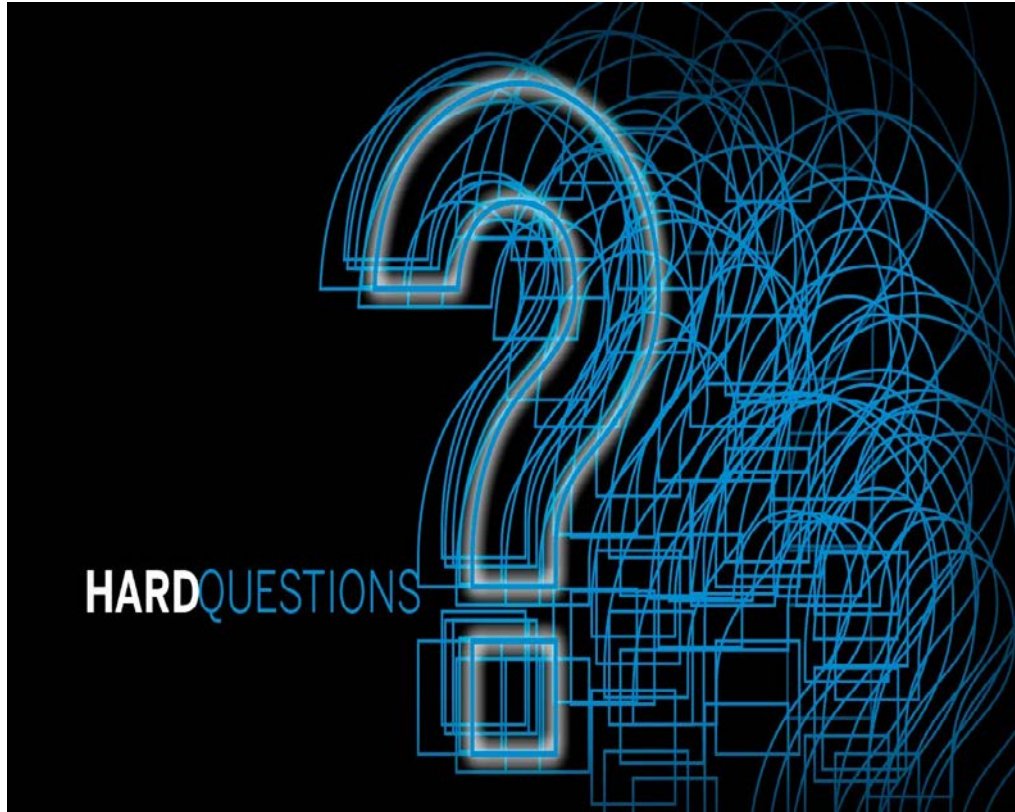
- Adherence trials must acknowledge dynamic changes
 - Adaptive Designs
 - Tailored Content
- The Future is Adaptive
 - Technology solutions must connect to real-time needs
 - Understand trigger events
 - Address psychosocial barriers & catalysts in adherence trials
 - Opportunities to provide tailored content quickly

Acknowledgments

The MTN is funded by the National Institute of Allergy and Infectious Diseases (UM1AI068633, UM1AI06615, UM1AI106707), with co-funding from the Eunice Kennedy Shriver National Institute of Child Health and Human Development and the National Institute of Mental Health, all components of the U.S. National Institutes of Health.

The content is solely the responsibility of the author and does not necessarily represent the official views of the National Institutes of Health.

Questions?



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The Michigan Tailoring System

- A full featured authoring environment enables a broad audience to create tailored programs
- Open source code encourages enhancements, adoption, and a growing community of practice
- Greater adoption yields standardized systems and processes for easier training, use, support, and dissemination
- MTS is free for use by noncommercial organizations for research and education