

Guiding Teams To Make Rapid Adaptations Of An Effective Intervention: The Stoplight Adaptations Approach

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BACKGROUND

- Fidelity is important to replicate benefits of effective interventions and translating them into practice.
- Real-world translation requires guidance to balance adaptations to context with attention to fidelity.
- To this end, the Stoplight Adaptation guidelines were developed for use in translation research.
- For the Better Asthma Control for Kids (BACK) trial of our evidence-based pediatric asthma intervention, we needed guidance for our community implementers.

RESEARCH OBJECTIVE

To describe how we operationalized the Stoplight Adaptations guidelines to:

- Provide clear "guardrails" for BACK implementers to determine what is OK to adapt (fidelity-consistent) and what is not.
- Trigger the implementers to report adaptations to the intervention and implementation strategies.

SETTING/POPULATION

Community health workers from 4 culturally and geographically diverse regions of Colorado:

- Colorado Springs (Metropolitan, military-serving)
- Fort Morgan (Small metropolitan, factories)
- Grand Junction (Western, small metro/rural)
- Lower Arkansas Valley (Eastern, rural)

METHODS

- Adaptation guide for implementers: categorized adaptation options by consistency to fidelity
 - "Red-Light" = not fidelity-consistent**
 - "Yellow-Light" = may not be fidelity-consistent**
 - "Green-Light" = fidelity-consistent options**
- Weekly research team meeting:
 - BACK Implementers discussed options for Yellow-Light adaptations – and alternatives for Red-Light
- Bi-weekly Implementation working group meeting:
 - Developed thematic groupings for adaptations across Year 1

RESULTS

BACK team used a multi-step strategy to guide and track adaptations using the Stoplight Adaptations guide throughout year 1.

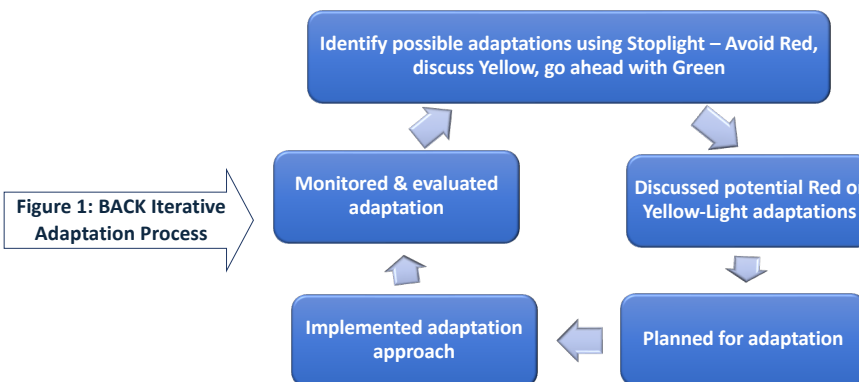


Figure 1: BACK Iterative Adaptation Process

BACK Red, Yellow, and Green Light guardrails of the Stoplight Adaptations approach included:



- Red-Light:** Adaptations were considered protocol violations and should be avoided at all costs.
 - Examples:** Changing intervention functions by decreasing the number of visits and assigning educational topics intended for a visit as homework; changing the enrollment criteria; changing surveys or assessment tools



- Yellow-Light:** Changes were permissible with prior approval during weekly meetings
 - Examples:** Team permission was required before adding, substituting or modifying activities & videos other than resources from www.ColoradoKidswithAsthma; changing the recruitment process if it differed from what agreed upon for the school



- Green-Light:** Changes were permissible to implement without asking permission from study leaders.
 - ANavs were asked to review the 'proposed' changes with the study coordinators
 - Examples:** Changing the name of lessons or activities; splitting a single visit into multiple sessions within a 2-week timeline; tailoring to fit families' learning and concordance needs

RESULTS

- ✓ Monitored for Yellow and Red-Light adaptations to Intervention and Implementation strategies
- ✓ Categorized adaptations according to standard adaptation frameworks (e.g., Framework for Reporting Adaptations and Modifications to Evidence-based Interventions (FRAME) and Implementation Strategies (FRAME-IS)).
- ✓ **No Red-Light adaptations to date!**

- ✓ The **major adaptations made in year 1** based in part on input from this Stoplight Adaptations approach, were:

Adjustments to recruitment methods and messaging

Changes to communicate approaches with invested partners (e.g., new templates)

Changes communication channels/strategies with invested partners

Limitations:

- The Stoplight Adaptation approach alone was insufficient to assess all FRAME elements (see references) comprehensively.
- Study team employed other methods, such as Periodic Reflections and Qualitative Interviews, to identify adaptations.

CONCLUSIONS

- The BACK Stoplight Adaptation method guided rapid and rigorous adaptation in fidelity-consistent forms.
- Other studies can apply this approach to balance fidelity to the protocol and adaptation to context.

References:

- Huebschmann et al., 2024. Reducing asthma attacks in disadvantaged school children with asthma: Study protocol for a type 2 hybrid implementation-effectiveness trial (Better Asthma Control for Kids, back)
- Prevention Research Center. (2021). Adapting EBPs: The Do's & Do Not's Using the Traffic Light Model (PART 1). <https://www.chhs.colorado.edu/prc/wp-content/uploads/sites/20/2022/11/Adapting-EBPs-Part-1-The-Do-Do-Not-Be-Red-at-CSI.pdf>
- Wilsen Sirman et al., 2019. The frame: An expanded framework for reporting adaptations and modifications to evidence-based interventions.