# A Summary of Implementation Science

Implementation science is the "study of factors that influence the full and effective use of innovations in practice" (Fixsen et al., 2015). In other words, implementation science explores the factors that contribute to success or failure when an intervention is implemented. Application of implementation science and its frameworks will facilitate high-fidelity implementation of your chosen intervention(s).

One of the implementation science frameworks created by NIRN, the National Implementation Research Network, defines four stages of implementation: **Exploration, Installation, Initial Implementation, and Full Implementation**. Below we briefly describe each of these four stages, as well as activities that occur during each. Each of these activities will help support high-quality implementation of your selected intervention(s).

FIGURE 3. THE PII APPROACH: INITIAL IMPLEMENTATION & FORMATIVE EVALUATION
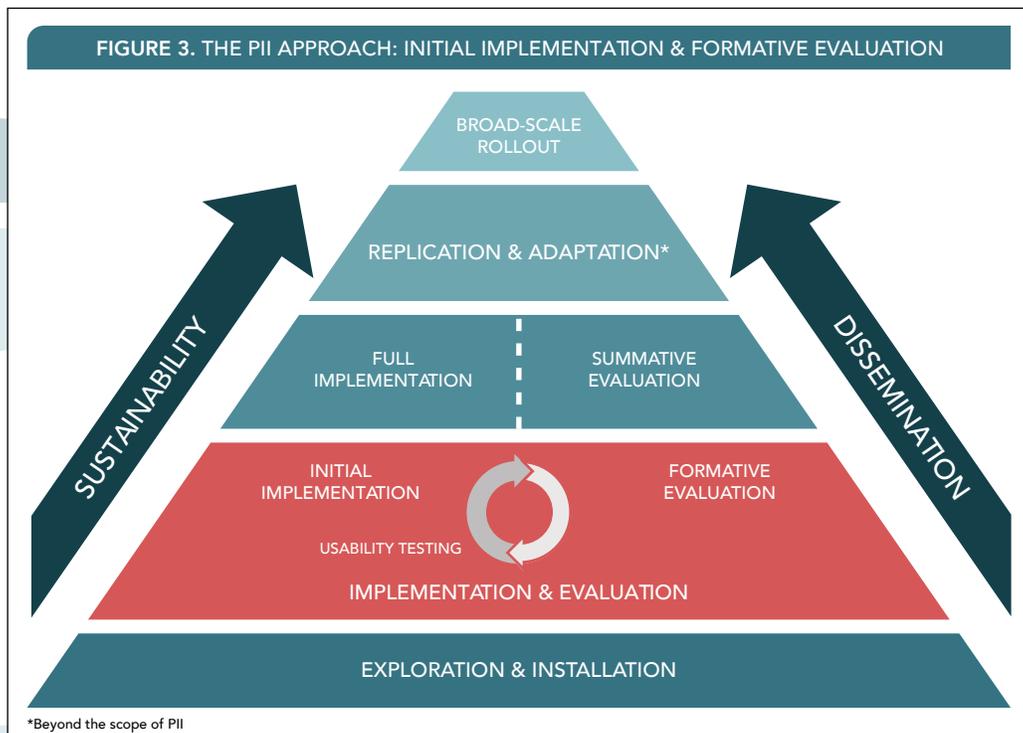
The **exploration stage** focuses on identifying the needs of your target population, selecting an appropriate intervention, assessing and building readiness, and beginning to plan for implementation and evaluation (Blase & Fixsen, 2013a; PII, 2013).

During this stage, activities might include:

- Completion of a readiness assessment,
- Development of research questions,
- Development of a teaming structure,
- Creation of logic models and a theory of change (PII, 2013).

The focus in this stage is identifying appropriate interventions and assessing and beginning to build readiness to implement.

During the exploration stage, the agency assesses and begins to build readiness. Shifting to the **installation stage**, there is an expanded focus on acquiring resources and building capacity for implementation (Blase & Fixsen, 2013a). The goal is to make any necessary changes to create a foundation for implementation moving forward.

Activities during this stage may include:

- Refining the teaming structure,
- Operationalization of the intervention (e.g., creation of practice profiles),
- Development of fidelity measures and protocols,
- Revision of agency policies and procedures,
- Creation of training, coaching, and supervision systems (PII, 2013).

These activities are undertaken with the intent of building a hospitable environment for the agency's intervention and of having the necessary structures in place to support its implementation.

During the **initial implementation stage**, an agency has all intervention components at least partially in place and will begin serving children and families (PII, 2013). During this stage, the focus is on evaluating whether the implementation is being faithfully implemented, whether key components are functioning appropriately (i.e., usability testing), and whether any adjustments are needed prior to full implementation (PII, 2013). In addition, this stage includes formative evaluation, which assesses whether the intervention is associated with expected program outputs and short-term outcomes. Depending on the results of the formative evaluation, the intervention can be stopped, revised, or continued to full implementation (PII, 2013).

Activities during this stage may include usability testing of key intervention components, monitoring of outputs, assessment of fidelity, assessment and adjustment of implementation supports (e.g., coaching, training, etc.), and completion of implementation quotient (IQ) trackers (PII, 2013).

At the point of **full implementation**, the staff will have become skilled at delivering the intervention and changes will have been institutionalized (PII, 2013). The summative evaluation will occur in this stage, in which short- and long-term outcomes of the intervention will be assessed (PII, 2013). Activities may include assessing and revising teaming structure, monitoring, and assessing intervention and implementation supports, and completing the summative evaluation (PII, 2013).

Throughout all stages of implementation, **sustainability** should remain a consideration as agencies implement and refine their interventions (PII, 2013). **Dissemination** should also be a focus throughout all stages, with agencies making use of opportunities to share their findings with relevant stakeholders (PII, 2013).

While these stages offer a framework for moving through implementation of a new intervention, it is important to remember that implementation is oftentimes a lengthy and non-linear process. Stages may overlap or agencies may return to a previous stage as needed. Full implementation generally takes take 2–4 years to achieve (Blase & Fixsen, 2013b).

References

Blase, K., & Fixsen, D. (2013a). Implementation stages. National Implementation Research Network (NIRN). http://nirn.fpg.unc.edu/learn-implementation/implementation-stages. Accessed Nov 1, 2017.

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