Principles of Implementation Science: HealthySteps as a Model and Case Study

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Objectives

1. Describe key implementation science principles
2. Provide a case model for implementation and impact with HealthySteps
3. Discuss challenges for scaling up and maintaining model fidelity
Implementation Science is the study of factors that influence the full and effective use of innovations in practice.

The goal is not to answer factual questions about what is, but rather to determine what is required (NIRN, 2015).
Science to Service Gap – Implementation

Research and Evidence of Best Practices

Use of Practices As Intended

1. What is adopted is not used with fidelity
2. What is used with fidelity is not sustained
3. What is used with fidelity is not used to scale
When Used Alone…

- Diffusion/Dissemination of information
- Training
- Passing laws/mandates/regulations
- Providing funding/incentives
- Organization change/reorganization

Use of Practices As Intended

⚠️ Return on Investment: 5-15%
WHAT WORKS

HOW IT WORKS

WHERE & WITH WHOM IT WORKS

Improved Family, Community and Opportunity Outcomes

“Contextual fit is the match between the strategies, procedures, or elements of an intervention and the values, needs, skills and resources of those who implement and experience the intervention.”

Horner et al., 2014
Assessing Need and Contextual Fit

• Traditional assessment quantifies need and selects strategy to implement
• Implementation-informed assessment examines contextual fit and feasibility for successful implementation

• Involves diverse stakeholder engagement
• Uses multiple methods and data sources
• Improves implementation and sustainability potential
The Hexagon Tool

Developed for use in implementation informed assessments

Reviewed and edited by the Racial and Ethnic Equity and Inclusion Team (REEI)

For use by organizations and communities

• How does HealthySteps support assessments of fit and feasibility when engaging with interested sites?
• What are the biggest challenges to contextual fit?
What is HealthySteps?

An evidence-based, interdisciplinary primary care program that integrates a child development professional, known as a HealthySteps Specialist, into the pediatric team to promote nurturing parenting and healthy development for babies and toddlers.
HealthySteps and Contextual Fit

• Readiness Assessment focused on core components, a practice scan and a community scan.

| Maternal Depression screening | Regular, validated screening (not surveillance) of all new mothers for maternal depression | • Not yet present  
• Beginning to implement (<50% of families)  
• Mostly implemented (50-90% of families)  
• Standard practice (>90% of families) |
| Monitor screening metrics | The practice regularly monitors aggregate screening rates for the screenings listed above (i.e., identifies the population to be screened, what percentage were eligible to be screened and what percentage were screened) | • Not yet present  
• Beginning  
• Implemented to some degree  
• Fully implemented |
HealthySteps and Contextual Fit

- Readiness Assessment focused on core components, a practice scan and a community scan.

| Community-based mental health services | Service providers that support those that have mental and behavioral health needs.  
- Basic services are those like county mental health departments or similar programs  
- Communities with more expansive services have the basic services available, but also a system of Private practices, public clinics, university clinics open to public, adult psychiatric services, child psychiatric services, etc. | Site is located in a community with basic services available to support family needs  
- Site is located in a community with a wide variety of externally located supports  
- Site is located in a community with a wide variety of supports; some of which are available on site |
Implementation Stages

Exploration
- Assess need; Examine fit and feasibility

Installation
- Assure resources; Develop supports

Initial Implementation
- Initiate practice; use data to improve supports

Full Implementation
- Practice is consistent; positive outcomes

It Takes Time
Active Implementation

WHAT WORKS

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It Takes Support

It Takes Time

It Takes a Village

It Takes Communication and Learning

What supports are needed for the practice?
It Takes Support

- Competency Supports
  - Selection Process
  - Training Process
  - Coaching Process
  - Fidelity Assessment

- Organizational Supports
  - Leadership Supports

- Organizational Supports
  - Facilitative Administration
  - System Intervention

- Decision Support
  - Data Systems
Implementation Drivers

It Takes Support

- Positive Outcomes
- Consistent Use of Innovations
- Fidelity

- Coaching
- Systems Intervention
- Facilitative Administration
- Decision Support Data System

- Integrated & Compensatory

- Competency Drivers
- Organization Drivers

- Leadership

- Selection
- Training
HealthySteps and Infrastructure

• How does HealthySteps support the development of a sustainable infrastructure for states and local sites?
  • How does HealthySteps build practitioner competency?
  • How does HealthySteps build organizational and systems structures to ensure sustainability?
  • How does HealthySteps assess and improve fidelity? What are the biggest challenges to fidelity?
HealthySteps Onboarding New Sites

**Preparation Support**
- Securing funding
- Gaining administrative buy-in (physician champion)
- Preliminary implementation planning
- Logistics for HSI

**Onsite Training**
- 2 Day Institute (local)
- The What and the Why of HS
- Implementation planning
- Clinical practice strategies

**Technical Assistance**
- Six 1-hour calls per practice
- Calls occur in the first year following training
- Focus on implementation and clinical challenges
**HealthySteps Onsite Training**

- **The What and the Why of HS** - Geared to full practice. Brief description of the program and emphasis on why the focus on babies is crucial.

<table>
<thead>
<tr>
<th>Brief Overview</th>
<th>Hx of ACEs Study</th>
<th>Infant Brain Development</th>
<th>Attachment Theory</th>
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<tbody>
<tr>
<td>Toxic Stress</td>
<td>Epigenetics</td>
<td>Social Determinants of Health</td>
<td>Economics of Early Investment</td>
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<tr>
<td>Core Components</td>
<td>Tiers of Service</td>
<td>Referrals</td>
<td>It takes a team</td>
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- **Implementation Planning** – Geared to immediate implementation team. Step by step discussion of implementing the 8 core components.

- **Clinical Practice** – Guiding principals and strategies for HS Specialists working with families in primary care.
HealthySteps Ongoing Professional Development

• **Webinars** – Bimonthly with focus on clinical practice, implementation, National Office updates and resources

• **Monthly Newsletter** – NextSteps (updates on recent publications, professional development, and HS news)

• **Member Connect** – online forum allows HS Specialists to consult and collaborate on practice challenges

• **Website Resources**
  - For Parents - handouts by age and topic
  - For HS Specialists - Visit guides by age
  - For Sites – Implementation Guide, Screening Schedules, Evidence

• **Annual Pre – Conference** – 1 day conference geared towards pediatric practices

• **Annual Conference** – HS Exclusive Programming at the Zero To Three Annual Conference

• **Online Learning Modules** – in development
HealthySteps is a Cost Effective Model

• Employing one FTE HS Specialist enables a practice to deliver the following services, for as low as $450 per Tier 3 child per year:
  • Tier 1 services to approximately 2,000 children and families
  • Tier 2 services to approximately 300 children and families
  • Tier 3 services to an additional 300 children and families
• Cost for on-site, two-day group training, for all practice employees, is approximately $18,000 plus trainer expenses
  • Includes six one-hour technical assistance calls during first year of implementation and an array of National Office supports
HealthySteps Sites Can Leverage Varied Funding Sources

**Payer Reimbursement**
- Billing payers for HealthySteps services (e.g., Medicaid, commercial)
- Capitated service arrangements (e.g., per member, per month)
- Direct contracting with health plans
- Value-based purchasing

**Other Funding Sources**
- Health system reinvestment, department funds
- Local funds
- State budget
- Department of Defense, Indian Health Services

**Grants**
- Federal
- State/municipal
- Philanthropic
HealthySteps Sustainability Site Supports

- Supporting sites with billing for HealthySteps services
- Understanding impacts of current policy environment
- Developing the HS Business Case
- Preparing sites for strategic dialogues with payers
- Generating annualized HealthySteps cost savings
Healthy Steps Short-Term Medicaid Cost Savings

**Interventions Driving Short-Term Medicaid Cost Savings**

<table>
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<tr>
<th>Child-Focused Interventions</th>
<th>Adult-Focused Interventions</th>
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<tbody>
<tr>
<td>• Well-child visit and immunization rates</td>
<td>• Breastfeeding</td>
</tr>
<tr>
<td>• Oral health</td>
<td>• Postpartum maternal depression</td>
</tr>
<tr>
<td>• Inappropriate use of care for ambulatory sensitive conditions</td>
<td>• Intimate partner violence</td>
</tr>
<tr>
<td></td>
<td>• Unhealthy birth spacing</td>
</tr>
<tr>
<td></td>
<td>• Smoking cessation</td>
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A recent single-state analysis conducted by the HealthySteps National Office, in conjunction with Manatt Health, demonstrated annualized savings to Medicaid of up to $1,150 per family, for an *annual* return on investment of **83%**.*

*Smoking cessation short-term savings not included in single-state analysis.*
HealthySteps Long-Term Cost Savings

**Long-Term Cost Savings Across Sectors**

- **Physical and Behavioral Health:** Direct relationship between the number of adverse childhood events (ACEs) and likelihood of having heart disease, cancer, and other chronic conditions

- **School Readiness and Educational Attainment:** Strongly linked to healthy social and emotional development, and for children who experience ACEs, school readiness and educational attainment are often negatively impacted

- **Juvenile Justice Involvement:** ACEs contribute to juvenile delinquency, increasing children’s risk of juvenile arrests and felony charges

- **State Spending:** Failing to address infant and childhood mental health disorders in early childhood increases the need for intervention across multiple state programs over the life of a child and into adulthood
HealthySteps Evaluation Activities & Supports

- Annual Site Reporting focused on fidelity monitoring
- Resources & training to support data collection & reporting
- Resources & supports focused on quality improvement
- Regular sharing of reporting results & emerging research
- Consultation on site-led research & evaluation projects
- Outcome Pilots Study with a subset of sites
Active Implementation

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What is an Implementation Team?

A group of stakeholders that oversees, attends to, and is accountable for, key functions in the selection and implementation of an intervention by ensuring:

- Families and community members are engaged
- The practice is defined and operationalized
- Implementation supports are in place
- Implementation is measured and monitored
- Outcomes are achieved and sustained

What it is NOT

- An advisory body
- A group that provides only periodic input or meets during crisis
- Technical work group
- Learning collaborative
Team Membership – Composition

- Size
  - 3-12 Individuals

- Composition
  - Administrative and fiscal leadership
  - Supervision
  - Practice
  - Family
  - Community
  - Policy
Existing Teams

What if I already have a team? Consider if your team:

- Has diversity in position and perspectives
- Has structured leadership to guide the ongoing work and function of the Team
- Has a written agreement on the roles and functions of the Team
Linked Team and Communication - Example

- Success Coach
- Parent Education
- Material Supports
- Mental Health
- Adoption Services
- Educational Advocate
- Cross Services Team
- Implementation Services Teams
- Design Team

(Metz et al., 2015)
Linked Teams and Communication - Example

It Takes a Village

Governance Team

Cross-Sector Early Childhood Team

Healthcare Implementation Team

Education Implementation Team

Social Management Implementation Team
Active Implementation

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HealthySteps and Infrastructure

• How does HealthySteps support implementation teams?

• What has HealthySteps learned about stakeholder engagement to promote sustainability and scale?
HealthySteps and Infrastructure

- Implementation team includes at least the Physician Champion, HealthySteps Specialist, and Administrative Manager

| Physician Champion | Practice has a medical provider (i.e. MD, DO or NP) who will support HealthySteps implementation by advocating for and demonstrating initial and ongoing practice changes. | • No Champion identified  
• Identified HealthySteps Champion  
• Champion on board and engaged |
HealthySteps and Infrastructure

• Sustainability Roadmaps focused on Unique State Influencers and the State HealthySteps Footprint

• State Medicaid Agency Opportunities
• Medicaid Managed Care Organizations Opportunities
• Systems Reinvestment Opportunities
• Other State Funding Opportunities
• Federal Funding Opportunities
Linked Communication

WHO should be communicating?
- Your team
- Vertical team connections
- Horizontal team connections

ABOUT WHAT should we be communicating?
- What is working
- What is not working
- What we know and what we don’t
- And how we know that

HOW OFTEN should we communicate?
- Regularly
- Using formal process
- Opportunities for change
It Takes Communication and Learning

Linked Communication

Program Management Team

Direct Service Staff

Implementation Team

Practice Informs Policy

Policy Enables Practice

Sustainability
HealthySteps Pilot: After the pilots, the Commonwealth Fund supports a replication effort and a national evaluation conducted by Johns Hopkins University.

Evaluations: The national evaluation included a RCT, a quasi-experimental comparison study, and an affiliated non-experimental evaluation.

Over the last two decades, the HealthySteps network grows slowly with limited national infrastructure.

HealthySteps National Office transitions to ZERO TO THREE.

Since 2005, the network has grown quickly.

2015: 74 sites

2018: 137 sites

Numerous small-scale studies were conducted following the national evaluation using quasi-experimental and non-experimental methodologies.

An implementation study across 65 HealthySteps sites was conducted by James Bell Associates, in collaboration with MDRC and Johns Hopkins University.