Stages of implementation:

Piloting population health management in community pharmacies

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Overview

Community pharmacies are:

- Highly accessible
- Frequently used by high-risk patients
- Successful in improving patient outcomes
- Underutilized in alternative payment models

(CCNC, 2016; Smith et al., 2010, 2013; Viswanathan, 2015)

The intervention:

Community Pharmacy Enhanced Services Network

- Deliver and document medication management services.
- Be accountable for a defined patient population (Medicaid, Medicare, dual-eligible, NC health choice).
- Tailor service delivery based on patient risk score.
- Receive reimbursement through value-based payment model.

(CCNC, 2016)

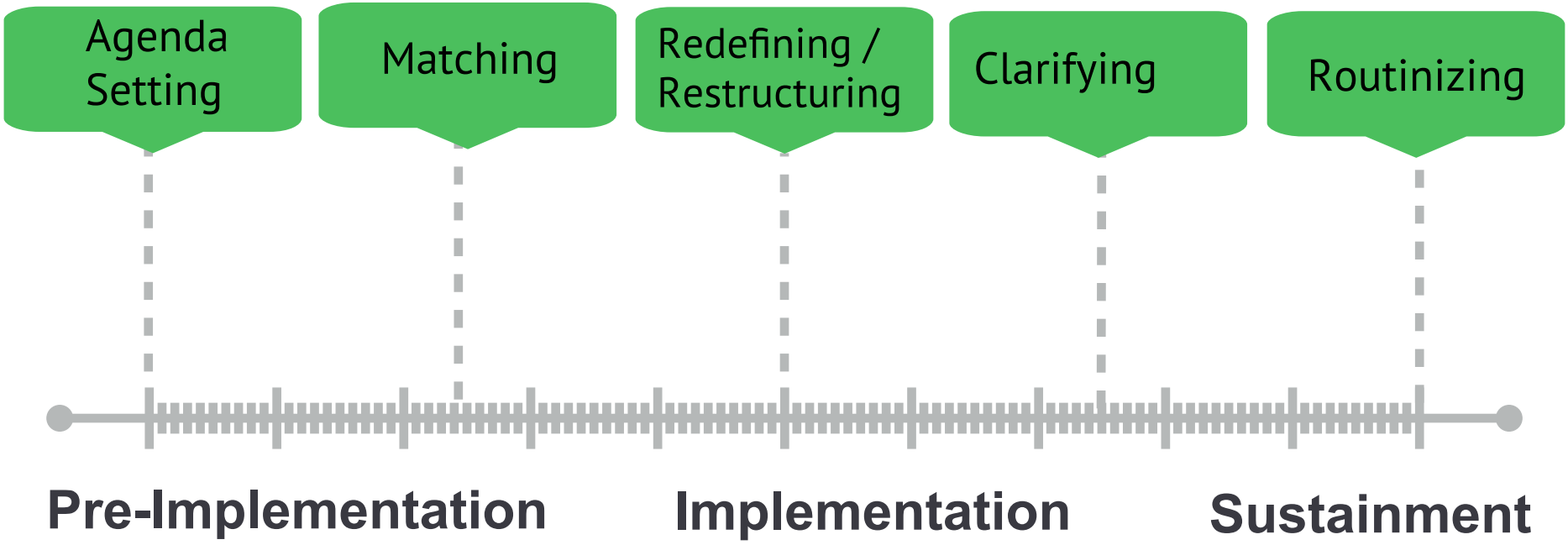
Objectives

1. To compare implementation strategies of high- and low-performing pharmacies at different stages of the implementation process.

2. To identify the implementation strategies used by high-performing pharmacies to sustain the intervention.

Conceptual framework:

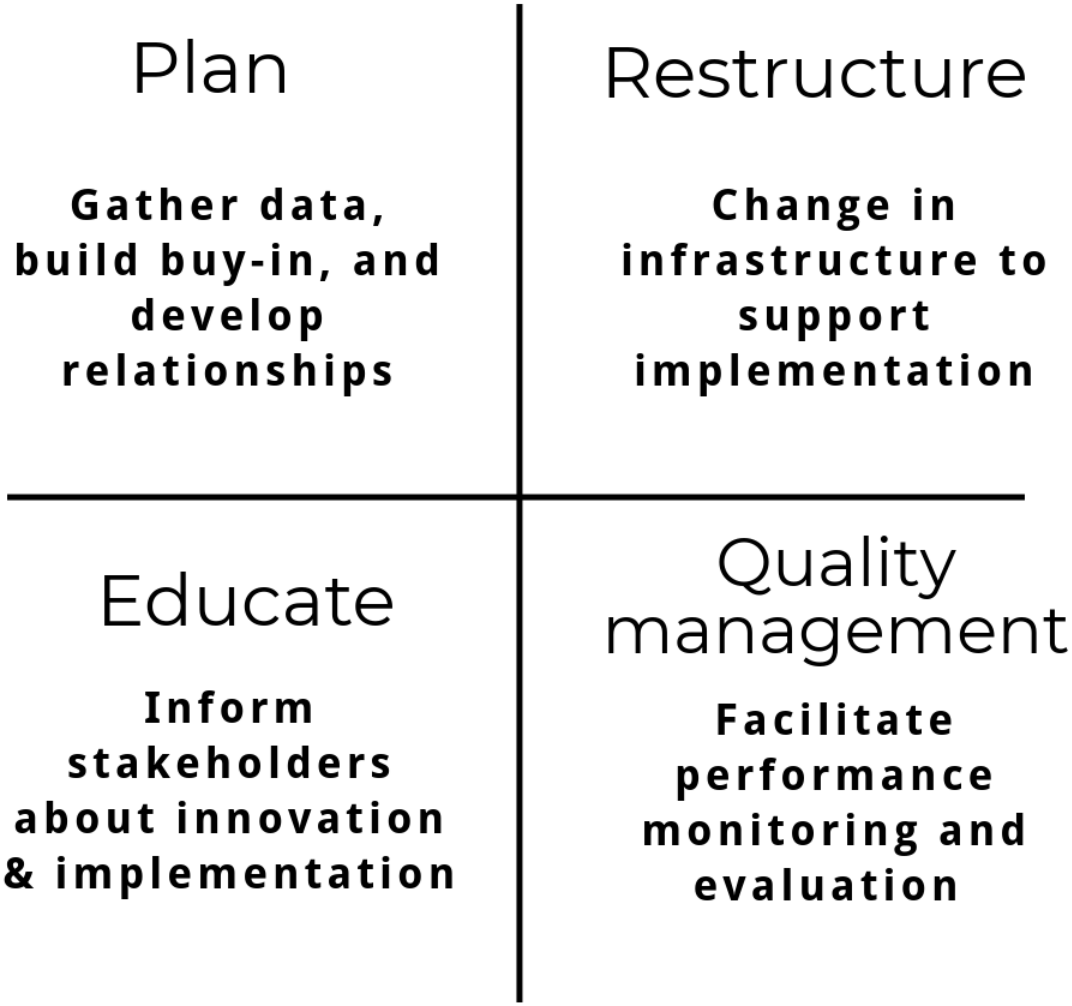
Rogers' Stages in the Innovation Process in Organizations



(Rogers, 2010)

Conceptual Framework:

Implementation Strategies



(Powell, 2012, 2015)

Data collection and analysis

- Interviews were conducted by phone from June - August 2017 (Mean = 51 minutes)
- With implementation leader at high- and low-performing pharmacies (defined based on performance scores)
- By a research team member trained in qualitative methods and a community pharmacist
- Recorded, transcribed verbatim, and analyzed for themes using Dedoose (version 7.0)
- 3 interview participants were consulted to review key themes (member-checking)

The sample (n=40)

STAFF AND SITE CHARACTERISTICS	INTERVIEWS %
STAFF ROLE	
PHARMACY OWNER AND PHARMACIST	20.0
PHARMACY MANAGER AND PHARMACIST	17.5
PHARMACIST	47.5
PHARMACY TECHNICIAN	15.0
STAFF TENURE	
0 TO 3 YEARS	32.5
4 TO 5 YEARS	45.0
6 YEARS OR MORE	22.5
PHARMACY SETTING	
SINGLE INDEPENDENT PHARMACY	20.0
MULTIPLE INDEPENDENT PHARMACY	50.0
CHAIN PHARMACY	10.0
OUTPATIENT PHARMACY (E.G., FQHC)	20.0
YEAR OF PROGRAM ENROLLMENT	
YEAR 1	37.5
YEAR 2	32.5
YEAR 3	30.0
PHARMACY PERFORMANCE	
LOW PERFORMING PHARMACY	40.0
HIGH PERFORMING PHARMACY	60.0

Findings: Pre- Implementation

Agenda Setting | Matching | Redefining / Restructuring | Clarifying | Routinizing

Similarities

PLAN STRATEGIES
+ Gather information about CPESN
+ Assess readiness for implementation

Differences

PLAN STRATEGIES
- Fail to visit other sites to gather information about implementation
- Fail to conduct a local needs assessment
- Fail to conduct local consensus discussions

Illustrative quotation

"If I could go back, that's something I'd change. Don't wait until six months down the road, when you've already started the program, to tell them this is what I want you to do. Because they won't understand why you're doing what you're doing and they'll be resistant."

- Owner from low-performing pharmacy

Findings: Implementation

Agenda Setting | Matching | **Redefining / Restructuring** | Clarifying | Routinizing

Similarities

PLAN STRATEGIES
+ Develop a formal implementation blueprint for service delivery
+ Tailor patient engagement strategies to overcome barriers and honor preferences

EDUCATE STRATEGIES
+ Conduct training with personnel

Differences

PLAN STRATEGIES
- Fail to develop implementation blueprint for documentation
- Fail to pilot test services
- Fail to recruit and designate for leadership

QUALITY-MANAGEMENT
- Fail to develop and organize quality-monitoring systems

Findings: Implementation

Agenda Setting | Matching | Redefining / Restructuring | **Clarifying** | Routinizing

Similarities

PLAN STRATEGIES
+ Stage implementation scale up

EDUCATE STRATEGIES
+ Develop and distribute educational materials

Differences

PLAN STRATEGIES
- Fail to develop relationships with providers and patients

RESTRUCTURE STRATEGIES
- Fail to revise professional roles based on implementation

QUALITY-MANAGEMENT
- Fail to purposefully reexamine implementation

Illustrative quotation

"We have some patients that receive information better from their medical providers than from pharmacy staff. So we'll call the physician and get them to reinforce what we've recommended to the patient."

- Manager from high-performing pharmacy

Findings: Sustainment

Agenda Setting | Matching | Redefining / Restructuring | Clarifying | **Routinizing**

- Obtained formal commitments and established agreements with providers (e.g., collaborative practice agreements, EHR view-only access)
- Created centralized support systems
- Incorporated CPESN into organizational policies (e.g., performance evaluation and hiring processes)

Limitations

- Interview guide was based on Rogers' theory and ERIC and may have neglected other areas of implementation (e.g., individual characteristics such as self-efficacy)
- Responses may be influenced by interview guide and interviewer (respondent bias)
- Because NC is an early adopter of incorporating community pharmacists into alternative payment models, NC pharmacies may have a higher level of organizational readiness than pharmacies in other states

Implications

1. Community pharmacies used a wide-array of implementation strategies that were repeated and refined throughout the implementation process.

2. High- and low-performing pharmacies relied on some of the same strategies but employed them differently.

3. Low-performing pharmacies omitted some of the strategies used by high performers and did not reach later stages of implementation.

Future research

- Explore effect of pre-implementation strategies on implementation outcomes and sustainability of medication management services
- Examine whether achieving certain implementation milestones is associated with sustainability (e.g., enrolling a critical mass of patients)
- Develop external coaching or peer mentor programs that assist community pharmacies with gaining provider and patient buy-in

(Saldana, 2012)

Thank You

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For Overview Slide (Slide 3)

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For Conceptual Framework Slide (Slide 5)

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For Conceptual Framework (Slide 6)

- Powell BJ, McMillen JC, Proctor EK, et al. A compilation of strategies for implementing clinical innovations in health and mental health. Med Care Res Rev. 2012;69(2):123-157.
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For The Intervention (Slide 7)

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For Future Research (Slide 17)

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Appendix: Performance Measures

PERFORMANCE MEASURES	POINTS
RICK ADJUSTED TOTAL COST OF CARE	3
RISK ADJUSTED HOSPITAL ADMISSION RATE	2
RISK ADJUSTED EMERGENCY DEPARTMENT ADMISSION RATE	2
PROPORTION OF PATIENTS ADHERENT TO STATIN MEDICATION (PDC ≥ 80%)*	1
PROPORTION OF PATIENTS ADHERENT TO ORAL DIABETES MEDICATION (PDC ≥ 80%)*	1
PROPORTION OF PATIENTS ADHERENT TO ANTIHYPERTENSIVE MEDICATION (PDC ≥ 80%)*	1
PROPORTION OF PATIENTS USING 4 OR MORE CHRONIC MEDICATIONS ADHERENT TO 75% OR MORE OF THEIR MEDICATIONS (PDC ≥ 80%)	1