A New Year: Time for Reflection and New Possibilities
Establishing a Foundation to Improve Population Health Management

Internal alignment: Where does population health management fit into your larger organizational goals/strategic plan?

Problem identification: What are your most pressing problems in primary care that impact managing your population?

Target population(s): What specific populations do you plan to impact over the course of the PHLN?

Aims: What do you hope to accomplish by December 31, 2019?

Measures: How will you know you got there?
Steps to Improving Population Health Management

Drivers: What are the primary and secondary drivers that impact your aim?

Changes: What are the changes you can test to effect the drivers for your aims?

Testing Changes: How are you prioritizing and testing changes?

Accelerating Learning: Are you testing multiple changes at once and how do you disseminate learning from the testing cycles?

Implementing, Spreading, Sustaining Changes: When do you implement, when are you ready for spread, and how do you sustain change?
Zooming in . . . on Population Health Management
Case Study: Dental Sealant Rates

- ABC Clinic (FQHC)
- Experiencing low dental sealant rates for children (UDS measure)
- Improvement team formed to look into possible causes and to identify, test, and implement changes
Defining the Problem (Opportunity)

• What are we trying to make **better**?
• What are our **problems** and the **root cause** of the problem?

THE WHY
WHY
WHY
WHY
WHY’s
Using the “5 Whys” to Define the Problem

1) WHY aren’t children getting dental sealants?
   - At-risk children are not being seen in dental clinic

2) WHY aren’t children being seen in dental clinic?
   - Parents don’t know that their children should be seen in the dental clinic to receive sealants

3) WHY don’t parents know about the importance of children receiving sealants?
   - Inadequate education is provided in anticipatory guidance at Well Child Checks
Using the “5 Whys” to Define the Problem

4) WHY is education inadequate during Well Child Checks?
   - Pediatric teams do not have adequate materials and training to educate parents/patients

5) WHY are there inadequate materials and lack of training for staff to educate parents/patients regarding sealants during Well Child Checks?
   - No team processes/workflows have been established to ensure information is shared about sealants
Case Study: Dental Sealant

Problem Statement

- UDS rates for dental sealant rates in children ages 6-9 have performed below targets at all sites (approximately 150 at-risk children)
  - Studies show that poor oral health habits have far-reaching effects into adulthood
  - Dental sealants can prevent cavities and more serious health issues and related costs
- Parents do not understand the importance of their children receiving dental sealants and do not know how to access a dentist
- Educational materials to inform parents regarding the importance of sealants are not currently available or used
Tackling the problem:

Using Evidence-Based Improvement Methodology

Model for Improvement

<table>
<thead>
<tr>
<th>What are we trying to accomplish?</th>
</tr>
</thead>
<tbody>
<tr>
<td>How will we know that a change is an improvement?</td>
</tr>
<tr>
<td>What changes can we make that will result in improvement?</td>
</tr>
</tbody>
</table>

From Associates in Process Improvement.
Developing an Aim Statement
What are we trying to accomplish?

• How good do you want to be *and* by when?
• Aim statements should be SMART:

  • **Specific**
  • **Measurable**
  • **Achievable** **Ambitious**
  • **Relevant**
  • **Time-bound**
Case Study: Dental Sealant

Aim Statement

We will improve our dental sealant rate for children
ABC Clinic will improve the UDS dental sealant rate for at-risk children ages 6-9 from 13.8% to 23.8% by December 31, 2019.
Characteristics of Strong Aims

- Provides rationale/context for importance of project
- Sets a clear goal to focus the team
  - Helps prevent distractions and scope creep
- Defines patient population
- **Alignment with focus area in the org wide goals**
- Meaningful
- Compelling
Aligning Improvement Work to Organizational Priorities

Vision/Mission

Strategic Plan

Organization wide focus areas

SMART aims (year 2 focus)

Goal #1

Aim #1

Goal #2

Aim #2

Goal #3

Aim #3

Aim #4
Alignment Improvement Work to Organizational Priorities

Mission:
To help our members, and the communities we serve, be healthy

Vision:
To be the most highly regarded managed care plan

Mission:
To help our members, and the communities we serve, be healthy

Vision:
To be the most highly regarded managed care plan

Strategic Plan:
1) High-quality health care
2) Operational Excellence
3) Financial Stewardship

Organization wide focus areas

- Improved Health outcomes
- Improved Member Experience
- Improved Patient Access
- Improved Technology and Data Systems

SMART aims (year 2 focus)

- Aim #1: Improve Diabetes Management
- Aim #2: Improved Depression Screening

Aligning Improvement Work to Organizational Priorities
Case Study: Dental Sealant
SMARTest Aim Statement

To improve organizational performance on UDS measures, ABC Clinic will improve the dental sealant rate for at-risk children ages 6-9 from 13.8% [21 children] to 33.8% [51 children] by December 31, 2019.
Dropping “Pins” on the Map
PHLN Team Reflection

- **With your team (10 minutes)**
  - What problem are you trying to solve?
    - Double check using the 5 Why’s to identify the root cause(s)
  - Is your Aim Statement SMART? Can It be SMARTer?
    - What characteristics are missing?
  - Have you considered technical and emotional factors?
    - Is your Aim aligned with organizational priorities and strategies?
    - Is your population defined?
    - Will others connect with your aim statement?

- **Partner with another team (10 minutes)**
  - Share your problem statement and Aim Statement
  - Provide feedback (likes/suggestions) via post-it notes
“All improvement requires change, but not every change is an improvement.”

The Improvement Guide, Langley, et al., Chapter 6, p. 109
Developing Theories (Hypotheses) for Change

- Enumerates why we think our proposed change will be good
- Helps QI team articulate the basis of predictions that changes will result in an improvement
- Allows for tests to be designed that will validate the theories and improve our original change idea
- Represents our current knowledge about how some aspect of how the system works
Using Driver Diagrams

- Translates a high-level improvement goal into key opportunities for sub-projects
- Helps organize change concepts and ideas
- Tests theories about multiple causes and their effects
- Serves as a communication tool
Steps to Develop a Driver Diagram

Gather team members (subject matter experts)

Brainstorm by asking “what needs to be in place to achieve our goal?”

Cluster “like” ideas and identify “themes”

Add any new drivers that have surfaced during brainstorming

Develop diagram – Primary/Secondary Drivers
We will improve asthma management by increasing the ratio of inhaled controller medications to inhaled rescue medications from 59% to 75% by January 1, 2015.
Things to Remember About Driver Diagrams:

• Include those who know the work best
• Two ways to start:
  – Primary drivers can be stated – brainstorm each primary driver
  – If primary drivers are less evident – brainstorm the secondary drivers (working backwards)
• No right or wrong
• One per Aim Statement
What Changes Can We Make that Will Result in Improvement?

Generating Change Ideas:

1. Logical thinking about the current system
2. Benchmarking or learning from others
3. Using technology
4. Creative thinking
5. Using change concepts

Identifying Changes from Driver Diagram

Aim Statement

We will improve asthma management by increasing the ratio of inhaled controller medications to inhaled rescue medications from 59% to 75% by January 1, 2015.

Primary Drivers (Systems Elements)

- Documentation
- Care Delivery
- Patient Engagement

Secondary Drivers (Areas for Improvement/Change Ideas)

- Correct classification in EMR
- Diagnosis of asthma in problem list
- Evidence of asthma in progress notes
- Inhaler medication prescribed
- Provider following standards
- F/up and/or case management provided
- Education provided to patient
- Demonstration on how to properly use inhaler
- Prescribed inhaler medication is picked up
- Attends scheduled appointments

Change Ideas
PHLN Team Exercise

• With your team (20 minutes)
  – **Identify at least one primary driver** that contributes to the success of your Aim Statement (feel free to identify more, if you have time)
  – **Identify secondary drivers for at least one primary driver**
    • Try asking the question “What elements need to be in place to make XX driver a successful component of reaching our Aim?”
  – **Select one of the secondary drivers and conduct a brainstorming session to create a list of possible change ideas to test**
Organizing Change Ideas
Concrete vs. Conceptual

**Concrete – the idea can be tested**
- “Send patients text message to remind them of appointments”

**Conceptual – needs more specificity regarding the exact idea to be tested**
- “Design a communication process to remind patients of appointments”
Selecting and Prioritizing Change Ideas

• Establish criteria
  – **Which idea would most address . . .**
    • Clinical quality?
    • Waste reduction?
    • Finances?
    • Patient/family care experience?
  – **Which idea is . . .**
    • Easy to try?
    • Important to staff?
    • Important to leadership?
    • Most likely to get attention if it’s successful?
# Criteria-based Prioritization Matrix

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Pt. keeps scheduled appt.</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>13</td>
</tr>
<tr>
<td>Correct classification in EMR</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>13</td>
</tr>
<tr>
<td>Pt. F/up with case manager</td>
<td>3</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>12</td>
</tr>
</tbody>
</table>

**Instructions:**

1. Score each item 1-3 (1 is lowest, 3 is highest)
2. Total scores across all categories
3. What is your #1 highest ranked small bone to test?
Helpful tool 2x2 matrix

- **Level of Effort** (Horizontal Axis) – How much time, money, resources, and capacity will be needed to achieve the desired outcome (the feasibility of making the change).

- **Level of Impact** (Vertical Axis) – How much value or impact the outcomes will have on the project (internal strength of the change).
Model for Improvement

What are we trying to accomplish?

How will we know that a change is an improvement?

What changes can we make that will result in improvement?

Act

Plan

Study

Do

From Associates in Process Improvement.
# The Role of Measurement in QI

<table>
<thead>
<tr>
<th>Understand</th>
<th>• How does the current system perform?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Predict</td>
<td>• What interventions might improve the performance of the current system?</td>
</tr>
<tr>
<td>Evaluate</td>
<td>• Did our interventions result in improvement?</td>
</tr>
<tr>
<td>Monitor</td>
<td>• Are our improvements sustained over time?</td>
</tr>
<tr>
<td>Engage</td>
<td>• Are we considering what is important for others to know?</td>
</tr>
</tbody>
</table>
Your PHLN Measures Set - How will you know the change is an improvement?

<table>
<thead>
<tr>
<th>Category</th>
<th>Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Outcome</strong></td>
<td>(1 – 3)</td>
</tr>
<tr>
<td>- The “voice” of your project</td>
<td></td>
</tr>
<tr>
<td>- Relates directly to the aim</td>
<td></td>
</tr>
<tr>
<td>- Longer indicator of progress/success</td>
<td></td>
</tr>
<tr>
<td><strong>Process</strong></td>
<td>(2 – 3)</td>
</tr>
<tr>
<td>- Relates to the secondary drivers and/or changes</td>
<td></td>
</tr>
<tr>
<td>- Early indicators of success</td>
<td></td>
</tr>
<tr>
<td>- Measures whether parts/steps of the system are performing as planned</td>
<td></td>
</tr>
<tr>
<td>- NOTE: Okay to focus on process measures only</td>
<td></td>
</tr>
<tr>
<td><strong>Balancing</strong></td>
<td>(1 – 2)</td>
</tr>
<tr>
<td>- Evaluates unintended consequences</td>
<td></td>
</tr>
</tbody>
</table>
Case Study – Dental Sealant Measures Set

• **Outcome:**
  – UDS: % of children, ages 5-9 who receive dental sealant

• **Process:**
  – Number of 6-9 year-old children referred from pediatrics to dental clinic
  – # of days health educator dispensed sealant information and vouchers to patients in the waiting room

• **Balancing:**
  – Appointment cycle time
  – Patient satisfaction
QI Measurement Characteristics

1. Focused on Learning
   • Not for scientific research or provider feedback

2. Simple Methodology
   • Small samples
   • Frequent sampling (rapid)
   • Motivate immediate action (what do we do with what we have learned)

3. Displayed Over Time
   • Tells a story of progress-to-goal
   • Highlights system performance
PDSA – Conducting Small Tests of Change

• Experimentation is required
• Small, rapid tests of change → PDSA cycle
Why Do Small Tests of Change?

- **Test your belief** that the change will result in improvement
- Decide whether the proposed change *will work in your environment*
- Decide which **combinations of changes** will have the desired effects
- Evaluate **side effects** from a proposed change
- Engage others and **minimize resistance** upon implementation
- Gain **confidence** and a high degree of certainty about the change which then *leads to a pilot*
- Allows **“safety”** to fail small
Small Scale Testing

• **PDSA**

  - **Plan**
    - Select a technique
    - Write down your assumptions
    - Identify partners
    - Keep it small!

  - **Do**
    - Carry out the test
    - Collect information
    - It should take minutes, hours, days, not weeks!

  - **Act**
    - What changes are to be made?
    - Next cycle?
    - Test under different circumstances

  - **Check/Study**
    - What did you hear, observe, learn?

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1. Write out your **idea/solution**
2. Has your organization learned anything about this in the **past**?
3. Write out your **key assumptions**
4. Brainstorm possible ways to **test it**
5. Select **one change** you can test fast
6. Put your change in the **real world**
7. Reflect on **what you learn** and “build” or “abandon"
PHLN Team Exercise

• With your team (15 minutes)
  – Identify your Measure Set:
    • 1 – 2 Outcome Measures
    • 2 – 3 Possible Process Measures
    • 1 – 2 Balancing Measures
  – Prepare the “PLAN” portion for an idea you want to test on the PDSA Worksheet

• Pair up with the same team (10 minutes)
Key Considerations

- **Size** of PDSA depends on type of change, variability in the change, resources, and expectations
- **Scale down** as much as you can, prototype where you can
- **Involve those doing the work** to develop PDSA
- **Collect data** that is meaningful, use sampling and qualitative data
- Start with the **ready and willing**!
- Test over a **wide range of conditions**
Case Study – Dental Sealants

Accelerating Improvements in Sealants

- Peds office family education
- Dental office risk assessment
- Dental office appointment processes
- Population health outreach to kids at risk

Parallel testing ramps might have sped improvement
A Final Look at Our Case Study
Case Study: Dental Sealant

Problem Statement

- UDS rates for dental sealant rates in children ages 6-9 have performed below targets at all sites (approximately 150 at-risk children)
  - Studies show that poor oral health habits have far-reaching effects into adulthood
  - Dental sealant can prevent cavities and more serious health issues and related costs

- Parents do not understand the importance of their children receiving dental sealant and do not know how to access a dentist

- Educational materials to inform parents regarding the importance of sealants are not currently available or used
To improve organizational performance on UDS measures, ABC Clinic will improve the UDS dental sealant rate for at-risk children ages 6-9 from 13.8% [21 children] to 33.8% [51 children] by December 31, 2019.

**Primary Drivers**
- Patients and family are educated
- At risk kids are identified
- Outreach to kids needing sealants

**Secondary Drivers**
- Parents understand importance
- Parents know how to get appointment
- Identified at well child check
- Identified in dental clinic
- Outreach to kids with care gap

**Waiting room education**
- Posters in exam rooms
- Streamline sealant scheduling
- Warm handoff to dental
- Huddle report for peds team
- Develop and test risking tool
- Document mod-high risk in EDR
- Carve out slots
Case Study: Dental Sealant Rates
Changes Tested

- Changes tested
  - Educational materials in the waiting room and exam rooms in the primary care visits
  - Gap report for huddle
  - Peds referrals to dental practice from well child check appointments
  - Incentives for kids to go to appointments
  - Risking tool in EDR
  - Carve-out dental slots for sealants

RESULTS: Increased volume in # of children seeing the dentist
To improve organizational performance on UDS measures, ABC Clinic will improve the UDS dental sealant rate for at-risk children ages 6-9 from 13.8% [21 children] to 33.8% [51 children] by December 31, 2019.

**Primary Drivers**
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**Outreach to kids needing sealants**

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- Warm handoff to dental
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- Document mod-high risk in EDR
- Carve out slots
Case Study: Dental Sealant Problem Statement Revised

- UDS rates for dental sealant rates in children ages 6-9 have performed below targets at all sites (approximately 150 at-risk children)
  - Studies show that poor oral health habits have far-reaching effects into adulthood
  - Dental sealant can prevent cavities and more serious health issues and related costs
- Parents do not understand the importance of their children receiving dental sealant and do not know how to access a dentist
- Educational materials to inform parents regarding the importance of sealants are not currently available or used
- Current well-child visit workflows do not include processes for staff to educate parents/patients on the importance of visiting the dental clinic for sealants
  - Includes lack of educational material helps/tools for staff to use, task assignments, training on delivering the education to the patient, and referral processes
Case Study: Dental Sealant
Rework of Driver Diagram

Aim:
Improve dental sealant rate from 13.8% to 23.8% in 12 mo.

Parents insure children get in to dental for sealants

Dental practice always applies sealants to kids at risk

Primary Drivers

Secondary Drivers

Parents understand importance of getting sealants
Parents know how to get appointment
Leverage pediatric team relationship to enhance referrals to dental
At risk kids are identified
Dental protocols prioritize sealant application appts
Outreach to at-risk 6-9 y/o

Ideas to Test

Waiting room education
Posters in exam rooms
Streamline sealant scheduling
Warm handoff to dental
Huddle report for peds team
Develop and test risking tool
Document mod-high risk in EDR
Carve out slots
Hygienist/EDDA protocols
Same day applications
Outreach registry

Org-wide Aims-Improve UDS Outcomes

Dental protocols prioritize sealant application appts
Outreach to at-risk 6-9 y/o
Considering Spread/Sustainability Early

1. Will
2. Ideas
3. Execution

Questions and/or Comments