Knowledge Management Strategies for Large-Scale Improvement

By Kate DeBartolo and Niñon Lewis

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The IHI Team

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Session Objectives

- Draw lessons and strategies from the IHI experience in large-scale learning events and learning platforms for dispersed participants

- Employ tools and methods for building learning systems and knowledge management platforms
Agenda

- Quick review of theory and additional resources
- Planning for knowledge management
- Execution
  - Synchronous
  - Asynchronous
  - Harvesting
Collective Experience

- 100 Million Healthier Lives
- 100,000 Homes Campaign
- 100,000 Lives Campaign
- 5 Million Lives Campaign
- Advancing Excellence Campaign
- Beacon Community Program
- Healthier Hospitals Initiative
- IHI Open School

- IHI Triple Aim Initiative
- Indian Health Service
- Partnership for Patients
- Project JOINTS
- RWJF SCALE Initiative
- Scotland Early Years Collaborative
- Surgical Safety Sprint
- The Conversation Project
- Zero: 2016 Campaign

- And all the experience in this room!
REVIEW OF KNOWLEDGE MANAGEMENT
Your Job in Orlando

Over the next 75 minutes:
  – Translate to your setting and projects
  – Track the ideas that jump out

Thinking back on the last few days:
  – Track ideas from other sessions
  – Develop tests for your return

Think about your home team!
Knowledge

- Knowledge - The actionable information embodied in the set of work practices, theories-in-action, skills, equipment, processes and heuristics of people

- Knowledge can give us the ability to make effective decisions, and take effective action

*based on definitions by Peter Senge, Mark Demarest*
Two Types of Knowledge

- **Explicit knowledge**
  - easily can express and record somewhere for easy access
  - *e.g.* a recipe for cooking, a checklist, a change package, tools for improvement

- **Tacit knowledge**
  - based on our experience, theories or heuristics (rules of thumb, guidelines, working models, and educated guesses that people use to solve problems)
  - largely exists in our heads, is inherent, instinctive and more difficult to quantify or get down on paper
  - *e.g.* how to ride a bike, how to support governments on large scale improvement
7 Fundamentals of Design

- Connection before content
- Circles connect
- Learn in small groups, integrate in large groups
- Diverge then converge
- Experts inform our thinking, not provide us with answers
- Connecting new ideas to what a member already knows
- We learn when we talk

Nancy Dixon, Common Knowledge Associates
Knowledge Management: Considerations

- Storage
- Organization
- Retrieval

Assigned roles and responsibilities:
- Convener AND Participants
- Identification
- Capture
- Access
- Sharing
ON PLANNING FOR KNOWLEDGE MANAGEMENT
Large-Scale Projects

What do we mean by planning for scale or spread?

- The science of taking a local improvement (intervention, idea, process) and actively disseminating it across an *existing* system.

- There are many possible definitions for “a system” (e.g., a hospital, a group of hospitals, a region, a country).
Planning

Three key questions:

1. What do we want to spread?
2. To whom do we want to spread (and by when)?
3. How are we going to spread?
Core Elements

- **Aim:**
  - What are you trying to accomplish by when?

- **Nature of the Intervention:**
  - What are you asking people to adopt?

- **Nature of the Social System:**
  - How are you accounting for the environment in which you are trying to spread?

- **Motivation:**
  - Why would anyone participate?

- **Foundation:**
  - Who else has adopted the intervention?

- **Network Building:**
  - What is the infrastructure for connection between participants?
Aim - What are you trying to accomplish by when?

- Time and number
- Heart of the work
- Aligns with larger goals, but still has edge

Have a patient on your team
Knowledge Management Planning

- Back of the envelope calculation
- Images to tell your story
- “Think Rosie”
Aim - Ideas to Try

**Getting Started:**
- Set a “what by when” goal
- Have team create back of the envelope calculations; discuss similarities and differences
- Use thumbs up, neutral, or down to come to number agreement
- Ask yourself: How is the heart of this work reflected in the aim?

**Accelerating Good Work:**
- Re-evaluate your aim. Will you reach it? If not, do not be afraid to extend the time. How will you change your work to reach the aim?
- Identify three or four stories that support your overall aim and bring a face to the work
- Set milestones along the way; what’s the trajectory of the work? Where do you expect to be at interim periods?
Nature of the Intervention - What are you asking people to adopt?

- Selecting individual interventions
  - Once you think an intervention is simple enough, simplify again
- Selecting a group of interventions
  - Look at the portfolio of interventions
- Degree of belief
Knowledge Management Planning

- Selection criteria
- Sequencing and sense making
- Find and create tools for all types of adopters
- Identify most useful resources

![Resource usefulness chart]

- Not at all useful
- Somewhat useful
- Useful
- Very useful
Nature of Intervention - Ideas to Try

Getting Started:
- If you can’t count the steps on one hand, go back to the drawing board
- Put asterisks by the most low resource places to start, but remind people they will have to do all the work eventually
- Develop intervention criteria to narrow the list
- Watch or visit a high performer to understand how they really do their work

Accelerating Good Work:
- Supplemental materials for specific types of organizations
- Develop a gap assessment or tool to help people know where to start
- Simplify again. Most likely everything has gotten more complex over the course of time.
Nature of the Social System - How are you accounting for the environment?

Letter Text:

“Requesting hard copy of Conversation Starter Kit
Please mail to:…”

Thank you.
Knowledge Management Planning

- Find examples – site visits, town halls, scanning
- Make tools flexible
- Identify what makes different systems special
- Additional relationships to consider?
- Research on group dynamics?
Nature of Social System - Ideas to Try

**Getting Started:**

- Base recruitment strategies off what you know about the environment
- **Build on success from other leaders or projects**

**Accelerating Good Work:**

- Evaluate what has changed in the environment. How have you adjusted your work to account for the changes?
- Allow organizations to tailor content to specific needs.
- **Create templates that organizations can alter.**
Motivation - Why would anyone participate?

- Start with yourselves
- Align with local priorities and push the envelope
- How does this solve someone else’s problem?
- Develop a plan to engage a diverse group
# Knowledge Management Planning

<table>
<thead>
<tr>
<th>Group Name</th>
<th>Stop?</th>
<th>Let?</th>
<th>Help?</th>
<th>What Matters to Them?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academia (early adopters)</td>
<td></td>
<td></td>
<td>X</td>
<td>Educating the next generation of health care professionals to provide outstanding patient care in a changing environment</td>
</tr>
<tr>
<td>Academia (late adopters)</td>
<td>X</td>
<td></td>
<td></td>
<td>Educating the next generation of health care professionals with a deep understanding of science and sharing what they have learned during their tenure</td>
</tr>
<tr>
<td>Medical Student Associations</td>
<td></td>
<td></td>
<td>X</td>
<td>Networking with likeminded students and providing value to members; being on the cutting edge</td>
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<tr>
<td>Nursing Student Associations</td>
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<td>X</td>
<td>Networking with likeminded students and providing value to members</td>
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<tr>
<td>Pharmacy Student Associations</td>
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<td></td>
<td>X</td>
<td>Networking with likeminded students and providing value to members</td>
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<tr>
<td>Boards</td>
<td></td>
<td></td>
<td>X</td>
<td>Ensuring boarded members will be good practitioners</td>
</tr>
</tbody>
</table>
Motivation – Ideas to Try

**Getting Started:**
- Identify what has impressed you
- Canvas potential participants
- Find or use milestones and red letter days
- Complete a stakeholder analysis

**Accelerating Good Work:**
- Update and celebrate – data, cases, successes
- Keep up your own motivation
- Identify participant milestones and key dates
- Move a stop partner to a let partner, move a let partner to a help partner
Foundation - Who else has adopted the intervention?

- Include letters of support
- Kick off calls with high ranking leaders
- Tell the story of the change
- Find examples that look like intended adopters
Knowledge Management Planning

- Who already has success?
- Finding bright spots
- Who at your organization should make the ask?
- Find examples from many settings
- Create affinity groups
- Sequence change – envelope version ok
Foundation – Ideas to Try

Getting Started:

- Build publicity around early adopters
- Identify well-liked peers (individuals and facilities)

Accelerating Good Work:

- Develop an alignment grid
- Identify new groups to engage
- Update publicity to include new stories and examples
Network Building - What is the infrastructure for connection between participants?

**FACILITIES (2000-plus)**
*30 to 60 Facilities per Network

**NODES** (approx. 75)
*Each Node Chairs 1 Network

**IHI and Campaign Leadership**

**Ongoing Communication**

**Mentor Hospitals**
Knowledge Management Planning

- Highlight others
- Create a low-tech means for participants to ask and answer questions of each other
- Tend to the network – more than one relationship in a region
- Value of celebration and recognition (economy)
  - Cultivate affection
“Not sure if you had anything to do with this recognition, but you have no idea how much it has impacted our hospital. It has given us the jolt of energy around quality that we needed. We have focused all week on celebrating and refocusing around quality. Thanks for all you do. You really make the fight worthwhile!”

-Hospital Quality Manager
**Network Building – Ideas to Try**

**Getting Started:**
- Think about where you want to be at the end of the work; imagine an infrastructure to accomplish it.
- **Who would be the first two people you’d want to include and with what frequency and format would you like to connect?**
- Create a node or faculty structure

**Accelerating Good Work:**
- Test new ways of connecting network members
- Identify additional contacts
- **Identify opportunities for recognition and celebration**
<table>
<thead>
<tr>
<th>Motivation</th>
<th>Foundation</th>
<th>Aim</th>
<th>Nature of the intervention</th>
<th>Nature of the social system</th>
<th>Network Building</th>
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</thead>
<tbody>
<tr>
<td>Getting Started Kit (GSK)</td>
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<td>Measurement information</td>
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<td>Expedition calls</td>
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<td>Business case</td>
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<td>Toolkit for surgeons and anesthesiologists</td>
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<tr>
<td>Improvement tools</td>
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<td>X</td>
<td>X</td>
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<tr>
<td>Patient and family 1-pager(s)</td>
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<tr>
<td>Newsletter and electronic updates</td>
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<td>X</td>
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<tr>
<td>Mentor hospital support</td>
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<tr>
<td>In person site visits</td>
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<tr>
<td>Virtual discussion groups</td>
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<td>Specialized dissemination materials</td>
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<td>X</td>
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<tr>
<td>Monthly node work group calls</td>
<td>X</td>
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<td>X</td>
<td>X</td>
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</tbody>
</table>
Planning – Key Points

- **Content**
  - Constantly simplified
  - Appropriate for different audiences

- **People**
  - Participants and other key players part of constant redesign
  - Everyone welcome where they are

- **Aim**
  - Know your goals and limitations on participants
    - Time
    - Technology
    - Measurement
    - Create shared story and image

- **Theory of Change**
  - Different driver diagram for project vs. for teams
Plan for Potential Challenges

- **Context**
  - Different geographies, time zones and cultures

- **People**
  - Partner roles and responsibilities
  - Participant understanding of their role
  - Identifying the right connectors

- **Process**
  - Internal and external factors delaying speed of sharing

- **Technology**
  - Internet access, phone access, limited repository

- **Demonstrating continuous value, motivators**
  - Less active participation than desired across virtual platforms
“Amateurs talk about strategy; professionals talk about logistics.”

-Old Military Axiom
Principles to Guide Learnings Systems for Improvement

- Freedom from fear of any kind
- Explicit aims are established and shared
- Leadership removes barriers to progress
- Bias towards action and testing
- Explicit and tacit knowledge are both present
- Data and story-sharing is a condition of participation
- All teach; All Learn
# Learning Systems Designs on a Spectrum

<table>
<thead>
<tr>
<th>Sharing-oriented (KP 1, 2)</th>
<th>Results-oriented (KP 3, 4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unlimited Time</td>
<td>Time-Limited</td>
</tr>
<tr>
<td>Measurable aims not required</td>
<td>Explicit measurable aims</td>
</tr>
<tr>
<td>Data sharing not required</td>
<td>Data sharing required</td>
</tr>
</tbody>
</table>

## Network
- Unlimited time frame
- Platform to build relationships and share ideas on a topic of mutual interest
- Participant driven

## COIN (Collaborative Innovation Network)
- Unlimited timeframe
- Web-based collaboration where COIN is the center of a larger community
- Supports increased knowledge, productivity, and innovation
- Focus on innovation

## CoP (Community of Practice)
- Unlimited time frame
- People with common passion learn to do it better through regular interaction

## BTS Adaptations
- Adapted to meet needs in context
- May not be time-limited
- Variable number of learning sessions
- Focus may be on innovation, testing, or spread & scale up

## Campaign
- Time-limited
- Mostly web & call based support to spread evidence based practices on a larger scale than BTS
- Focus on spread

## BTS (Breakthrough Series)
- Time-limited virtual or face-to-face w/3 in-person learning sessions and 3 action periods
- Create improved processes to produce specific outcomes
- Spread and adapt existing knowledge to multiple settings
- Focus on spread & scale-up

## COIIN (Collaborative Innovation and Improvement Network)
- Time-limited
- Web-based group collaborating on topic of shared interest who share data to get measurable results
- Focus on innovation, testing, scale up, or spread
Methods: Three Themes

- Synchronous Methods (Face to Face)
- Asynchronous Methods (Virtual)
- Harvesting
A framework for planning

<table>
<thead>
<tr>
<th>TACIT</th>
<th>PUSH</th>
<th>PULL</th>
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<tbody>
<tr>
<td>TELL</td>
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<td>ASK</td>
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<tr>
<td>PUBLISH</td>
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<td>SEARCH</td>
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<tr>
<td>EXPLICIT</td>
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Knowledge Sharing Framework

TELL
- All-country Webex calls
- One-on-one TA calls
- Video clips
- Facebook, twitter

ASK
- Communities of practice (M&E)
- Teleconferences
- Site visits
- Regional meetings
- All Country meetings

PUBLISH
- Weekly list serv blast
- PHFS monthly newsletters
- Evaluation
- Country reports / monthly updates

SEARCH
- PHFS Drop box
- Links to existing QI/NACS web sites

TACIT

EXPLICIT

Partnership for HIV Free Survival
Methods: Three Themes

- **Synchronous Methods (Face to Face)**
  - Face to Face Learning Sessions
  - Site Visits

- **Asynchronous Methods (Virtual)**

- **Harvesting**
KM-Focused Learning Sessions

- Keep the energy up from beginning to end.
- Give improvement teams a chance to share in every session.
- Keep the “home team” in sight.
- Understand the audience for each session, including their learning styles.
- Put the patient, family, and purpose at the center.
- Maximize storyboard sessions.
- Capture the learning, not just share it.
Learning in Real Time


Rapid Feedback

What is one thing you intend to do as a result of this workshop? Write your comments on the back please.
What’s Possible at a Learning Session…

- Scotland Early Years Collaborative: https://vimeo.com/101074945
KM-Focused Site Visits

- Decide your objective from the outset: exploratory, evaluative, celebratory
- Give clear input to the hosting team on who, what, where, when in your expectations
- Meet with an array of roles (leaders, middle-managers, front-line admin and health care staff)
- Use a pre-planned feedback form
Site Visits – Ideas to Try

- Encourage teams to visit each other
- Invite other teams to join the site visit as observers
- Combine a site visit with a Learning Session
- Whatever you do, do not sit in a windowless conference room the entire time!
Methods: Three Themes

- **Synchronous Methods (Face to Face)**
- **Asynchronous Methods (Virtual)**
  - Calls and Virtual Meetings
  - Virtual Methods to Move Ideas Quickly
  - Virtual Learning Sessions
  - Virtual Site Visits
  - Communities of Practice and Affinity Groups

- **Harvesting**
KM-Focused Calls and Virtual Meetings

- Focus on content of interest to all (incl. right speakers, right participants)
- Value the participants time - announce call schedule and topic themes ahead of time
- Turn the call over quickly to presenters and teams
- Create affinity and more than just two-way communication (“the 10 minute rule”)
- Deploy your resources well (technical host, content host, 1-2 chat facilitators)
- People need time to think. Get comfortable with silence.
- REMEMBER: Always, always, always RECORD (notes, Webex recording, etc.)
Virtual Methods to Move Ideas Quickly

- Listservs and Newsletters – allow quick push of information
- Extranet – internal project sites for teams to post documents, resources, measures, reports
- Facebook – creates affinity and can also push information out
- Videos to tell stories
- Twitter – News of PDSA’s, successes, resources and tools out to masses in real-time

**REMEMBER:** All of these modes need editors and monitors
Scotland EYC LS2: The Twitter Challenge

- **Tuesday, 9:30am**: 50 new Twitter followers and 250,000 Twitter impressions by the end of LS2 (Wednesday, at 3:30pm)
- Challenge met by 1:30pm Tuesday.
- **NEW CHALLENGES:**
  - 1,000,000 Twitter impressions by the end of LS2.
Scotland EYC LS2: The Twitter Challenge

- #bestplacetogrowup reaches #2 on worldwide Twitter trending list...

Above:
- #arresteddevelopment
- #syria
- #memorialdayweekend
KM-Focused Virtual Learning Sessions

Everything regarding calls/virtual meetings, plus…

- Emphasize importance of attendance and expanded participation (especially leadership)
- Set expectations to avoid distraction
- Create a plan for your team for the location and AV needs for each of session (including breakouts).
- Emphasize the value of a virtual LS: Additional staff can attend, teams can pull data and run PDSA’s in real time, etc.
- Create as much affinity as possible (photos on storyboards)
KM-Focused Virtual Site Visits

All the site visit ideas, plus…

- Good pre-work - Give questions to team ahead of time to prepare
- Include photos: team, facility layout, process flows
- Make virtual site visit presentations available on extranet for other teams
Methods: Three Themes

- *Synchronous Methods (Face to Face)*
- *Asynchronous Methods (Virtual)*
- *Harvesting*
The “Harvesting” Gestalt

It is everyone’s job to:

– Know what is happening
– Work with others to improve what is happening
– Make it easier for the next person to do their work well
Think Strategically About the Harvest

- Planned or emergent
- Tangible or intangible
- Individuals or the collective
Harvesting in Three Aspects

- Gather
- Synthesize
- Communicate
Levels of Harvesting

- Personal level harvest
- “Ground level” harvest
- Community level harvest
- Meta-level harvest
Asking the Right Questions

- Harvesting from the past
- Harvesting in the present
- Harvesting for the future
- Harvesting for emergence
Listening for the Answers

- Dedicated listener
- Team of synthesizers
- Reporter
- Collective Story Harvest
100,000 Lives Campaign Bus Tour
Fall Harvest

- ≈70 staff visited a hospital in all 50 states in 2 weeks
- Worked with Nodes and Mentors to identify unique hospitals (not all usual suspects)
- Mix of large/small, urban/rural, pediatric, academic…
- Collected impressive results, tips and tricks, tools, and possible mentor contacts
Putting it all together

- Final thoughts and questions
- Applying to your work
# Action Planning for Large-Scale Learning

**LL12 Workshop: Knowledge Management Strategies for Large-Scale Learning**

## What are you planning? / What is the purpose?

<table>
<thead>
<tr>
<th>People</th>
<th>When</th>
<th>How will you involve/engage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Who will you involve (consider multiple perspectives – who may be missing)</td>
<td>(consider planning, execution &amp; scale-up)</td>
<td></td>
</tr>
</tbody>
</table>

## Process for Knowledge Sharing (identify, capture, access and share)

<table>
<thead>
<tr>
<th>Steps</th>
<th>Mechanism to test</th>
<th>Dosage</th>
</tr>
</thead>
</table>
Last Thoughts

Resources:
- Lots of great handouts available in hard copy and online with the posted slides!

Contact Information:
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  – @kate_debartolo
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  – @ninonlewis