HIGHLY ADOPTABLE IMPROVEMENT

A model and tool to address workload-capacity balance and perceived value amongst quality improvement projects
Have you ever experienced this?

- We don’t have time for this
- Too much change happening
- We don't understand why we have to do this
- This doesn’t make sense
- This doesn’t match our workflow

OR

- Works for awhile but not sustained
- Need to implement reminders
- Provide compliance data on unit’s/area’s performance
TO-DO LIST:

1. Reduce wait-times
2. Meet patient-centered needs
3. Prevent SSIs
4. Implement SSC
5. Reduce cost
6. Reduce falls
7. Improve hand hygiene
8. Prevent VAP
In an effort to improve healthcare, are we making it harder to provide care?
## Impact of Change on Workload/ Capacity

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Time Required</th>
<th>Impact</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ventilator associated pneumonia bundle (VAP)</td>
<td>~2hrs/day direct nursing time - affected other activities</td>
<td>Branch-Elliman. BMJQS 2013</td>
<td></td>
</tr>
<tr>
<td>Intensive blood glucose monitoring in ICU (GC)</td>
<td>~2hrs/ day direct nursing time</td>
<td>Aragon. AJCC 2006</td>
<td></td>
</tr>
<tr>
<td>Electronic medical record / Health IT (HIT)</td>
<td>Longer workdays, see fewer patients, disrupted workflows</td>
<td>Miller. Health Affairs 2004</td>
<td></td>
</tr>
<tr>
<td>Central line infection bundle (CLB)</td>
<td>Cart was instrumental – everything available averted delays</td>
<td>Dixon-Woods. Mil Quart 2011</td>
<td></td>
</tr>
</tbody>
</table>
Impact of Change on Workload/ Capacity

- Baseline
- Zone of change
- Post implementation of change
- More workload/ less capacity
- Unchanged
- Less workload/ more capacity

VAP, GC, HIT
CLB, SSC
Cumulative Impact of Change

![Graph showing the cumulative impact of change over time. The graph plots Workload against Time, with three lines representing different levels: Unsustainable, Acceptable, and Ideal.]
**Impact of Change on Perceived Value**

- People are not passive recipients of change; they evaluate, seek meaning and develop feeling towards change.

- **Perceived Value**
  
  *the willingness or readiness of individuals to adopt change when they believe the outcome of the change will be of value to them (or things of importance to them)*

  - **Emotional** = That will save lives!
  
  - **Practical** = I can see myself doing that new practice
  
  - **Logical** = That new process makes sense
Hypothesis

- Change initiatives that do not add additional workload and have high perceived value are more likely to be adopted, cause less workplace burden, and achieve the intended outcomes.
Highly Adoptable Improvement

Implementation Strategy
How we are asking people to do it

Intervention Design
What we are asking people to do

Intended outcomes
NOT achieved

Burnout, change fatigue, cynicism, error, workarounds

Sustainably adopt improvement intervention

Intended outcomes achieved

* The person icon represents the collective recipients of the change; those individuals required to carry out the tasks associated with the intervention
### Highly Adoptable Improvement

<table>
<thead>
<tr>
<th>Selected Factors</th>
<th>Associated Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>End-user participation</td>
<td>Are end-user staff/physicians involved in the change?</td>
</tr>
<tr>
<td>Alignment and planning</td>
<td>Does the change initiative align with the organization’s and/or team’s goals and has the rollout been planned effectively?</td>
</tr>
<tr>
<td>Resource availability</td>
<td>Are the required resources (training, equipment, time, personnel) for the implementation of the change initiative known and will they be made available?</td>
</tr>
<tr>
<td>Workload</td>
<td>How much workload (cognitive, physical, time) is associated with the intervention?</td>
</tr>
<tr>
<td>Complexity</td>
<td>How complex is the change intervention?</td>
</tr>
<tr>
<td>Efficacy</td>
<td>What degree of evidence and belief is there that this intervention will lead to the intended outcome?</td>
</tr>
</tbody>
</table>
## High-Adoptable Improvement

### End-user participation

Are end-user staff/physicians involved in the change?

- *Active participation of end-users in the design, testing, revising and implementation of change interventions increases the likelihood of higher perceived value and is more likely to produce a less workload intensive intervention, thus increases the chance of sustained adoption.*

<table>
<thead>
<tr>
<th>High risk</th>
<th>Moderate risk</th>
<th>Some risk</th>
<th>Highly adoptable</th>
</tr>
</thead>
<tbody>
<tr>
<td>The intervention has not been designed with or tested with end-users.</td>
<td>End-user staff/physicians were invited to participate in the initial planning meetings where their input was sought.</td>
<td>End-user staff/physicians played an initial role in the design and testing of the intervention. Their feedback will be sought after implementation.</td>
<td>End-user staff/physicians play a continuous role in the change initiative, including designing, piloting and revising the intervention and, during the implementation phase. Their feedback is continuously sought and addressed.</td>
</tr>
</tbody>
</table>

### Workload

How much workload (cognitive, physical, time) is associated with the intervention?

- *Interventions that have less workload or make the current workflow easier to perform are more likely to be sustainably adopted and reliably performed.*

<table>
<thead>
<tr>
<th>High risk</th>
<th>Moderate risk</th>
<th>Some risk</th>
<th>Highly adoptable</th>
</tr>
</thead>
<tbody>
<tr>
<td>We have not estimated how much workload is associated with the intervention.</td>
<td>We have attempted to estimate the additional workload associated with the intervention and believe the additional workload should be adoptable by end-users.</td>
<td>We have piloted the intervention and worked with end-users to assess the workload demands and have determined that the intervention adds additional workload. We are looking to see if the intervention can be further simplified, other work removed, or additional resources added.</td>
<td>We have piloted the intervention and worked with end-users to assess the workload demands and have determined that the new work can be implemented and reduce workload and make their current work easier.</td>
</tr>
</tbody>
</table>
Timing the steps and processes involved in the intervention can give you an estimate of the additional workload. You can then reflect on the complexity of the intervention and ask:

1) Does it need all the proposed steps/processes?

2) Could steps/ processes be simplified?

3) Could necessary equipment and technology be provided to reduce the workload associated with the steps?

4) Could other staff, providers or patient/families be involved to distribute the workload? Using LEAN tools can help identify other workflow steps that may have associated waste (or non-value added time), or could be modified to better incorporate the new work.
Feedback

• Workload is a barrier to adoption and change

• Model intuitive, clear and has face validity

• Assessment guide allows for reflection and is useful to:
  • Consider current state
  • Identify opportunities for improvement
  • Use as a communication tool with project team, leadership and recipients of change

• Suggestions on how to improve clarity and utility

• All will continue to use
Take Away Messages

• Efforts to improve healthcare, like Med Rec, can increase workload

• The Highly Adoptable Improvement model and guide supports focusing on the impact of change on care providers and staff and seems useful and usable

• Ongoing work in this area will continue to provide guidance on effectively implementing improvement initiatives and programs

• Change is hard….let’s avoid making it **harder!!**
www.highlyadoptableQI.com

hayesc@smh.ca
@DrChrisHayes
@HighAdoptQI