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# Change management: A framework for measuring and implementing organisational change

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**Abstract** In 2018, Mayo Clinic completed the largest transformational project in its 150-year history. Mayo Clinic was prepared to take on the implementation of new software systems (Epic Systems Corp) as an integrated electronic health record (EHR) and revenue cycle management (RCM) system across all sites of the enterprise. Three foundational teams were launched for this project: leadership, project management and change management. In a project such as this, a common pitfall is to focus completely on the system and lose sight of the end users. For Mayo Clinic, the people side of change was at the forefront of the project. A robust change management team was budgeted, staffed and engaged with an experienced outside consulting partner. A goal for the change management team centred on the best way to measure the change management impact and the degree to which it was making a positive contribution in driving successful adoption of the new EHR and RCM system. With literature lacking in this area, the team moved forward with courage and quickly learned that the easy part was the development of a survey with questions mapped to the six components of the change management strategy and the phases of the awareness, desire, knowledge, ability, reinforcement

(ADKAR) Model (Prosci Inc). The hard part was building the infrastructure to visually display millions of rows of data that needed to be positioned, filtered and analysed for all affected locations. The authors share the methods to measure change and explain the importance of developing a comprehensive and robust means of gathering and displaying large volumes of change management data at the project onset. This paper prepares the reader to confidently develop an organisational framework to measure and report the effectiveness of a change management strategy.

**KEYWORDS:** change management, data, measure, survey

## INTRODUCTION

### Setting the stage

Is your organisation embarking on a project that will dramatically change how people do their day-to-day work? Are millions of dollars at stake? Is the risk of failure high? Is the project moving forward without any plans designed to enable the adoption of the change? If so, time is short for resourcing a change management team and measuring the change strategy's effect on project success. The time to act is now.

Unfortunately, the literature lacks information and examples on how to measure change management, but it is ripe with stories of failed implementations and of lessons learned the hard way. Operating losses, usually millions of dollars, are attention grabbers in the news. An example is the electronic health record (EHR) implementation of the Dana-Farber Cancer Institute, in 2015,<sup>1</sup> and the University of Texas MD Anderson Cancer Center, in 2016.<sup>2</sup> Lessons learned from previous Mayo Clinic implementations indicated that insufficient change management was one point of failure in the EHR Change Management implementation plan. Studies have shown that in most organisations, two of every three transformation initiatives fail.<sup>3</sup>

Historical challenges in effecting successful transformational change had a pivotal role in the decision to ensure that recent EHR and revenue cycle management (RCM) system implementation at Mayo Clinic received the most ambitious change

management efforts yet. In support of the efforts, we adopted a model of repeated measurement of the people side of change, making targeted adjustments on the basis of data and measuring the effect again. This approach enabled the use of real-time data to demonstrate the value of the investment in our change management measurement strategy and to instil confidence in our ability to prepare staff successfully for transformational change.

The example described herein centres on a large implementation of an information technology (IT) system. The framework for measuring and implementing change can be leveraged for any large or transformational change.

Healthcare organisations are having unprecedented changes. Perhaps your strategic plan involves a new centre for digital health where many different business units will be brought together under one umbrella to advance your institution's digital capabilities. Or your healthcare system is implementing a new transplant system that requires re-engineering of systems and processes to ensure end-user acceptance. In either case, the ability to mobilise a framework for measuring and implementing change would position any organisation to quickly adapt their business model to meet consumer needs. In their 2017 *Harvard Business Review* paper, Tushman and colleagues<sup>4</sup> advocate that data science is becoming reality for change management. Although data science measurement may not

have arrived yet, it is time for organisations to get ready.

Mayo Clinic, a large integrated, not-for-profit medical group practice, launched a multi-year journey to select and implement an enterprise-wide EHR/RCM system to replace its vended EHR from the early 1990s, along with multiple stand-alone vended and home-grown systems used across the enterprise. The magnitude of this change was reflected in its sheer numbers (Figure 1): 43 software modules (Epic Systems Corp) were implemented, 287 legacy systems were retired, 4,700 physicians and scientists and 53,000 allied health staff were targeted for the change, and 4 implementations were phased in over 15 months across 98 clinical sites and 3 time zones, at a cost of US\$1bn. This was undoubtedly the largest transformational project in Mayo Clinic's 150-year history. Given that the EHR/RCM system was critical to ensuring that we would deliver on our primary value

of 'the needs of the patient come first', failure to successfully implement a safe and long-lasting EHR/RCM system was not an option. The risk of a lack of adoption of the new system was a foremost consideration for organisational executives. It became the driver for effectively measuring and broadly sharing the impact of the change management strategy and tactics. The disruptive nature of this implementation centred heavily on people — Mayo Clinic staff and the patients they serve. This was not only an IT implementation project, it was a practice convergence project.

Just as the technical teams were responsible for building the new system, the change management team was accountable for delivering on its objectives for adoption and use of the new EHR/RCM system. This accountability required regular project sponsor communication on the status of efforts to leadership forums, project leadership and executive groups. Project



**Figure 1:** Magnitude of change. EHR, electronic health record; Epic, Epic software system (Epic Systems Corp); RCM, revenue cycle management  
Source: Used with permission of Mayo Foundation for Medical Education and Research.



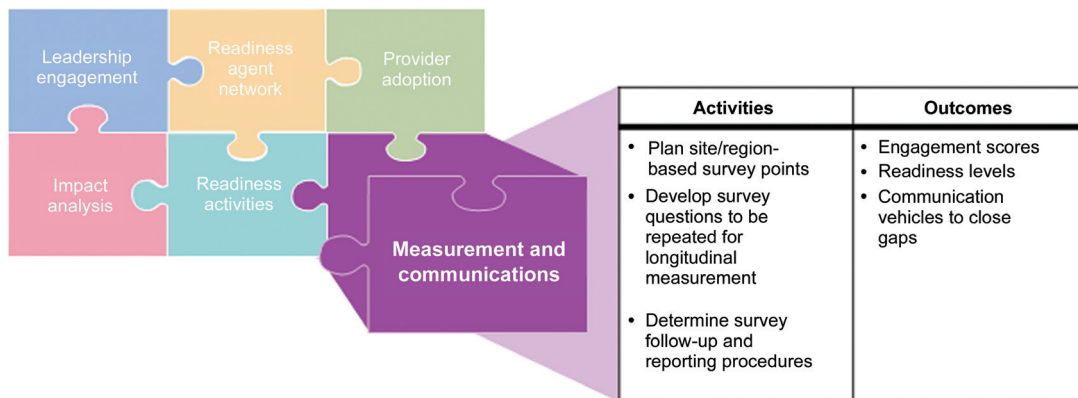
managers used quantitative metrics such as percent build task completion, percent testing errors and full-time-equivalent dollars spent to ensure delivery on scope, on time and on expense within budget. These measures alone, however, could not completely ensure the success of the project. Since the sponsors and important stakeholders required data to measure and manage project status and success, the change management team sought to align their reporting. The team was confident that these measurements would reliably reflect the progress of critical change management-related components driving overall project success.

**Start with a change management strategy**

To ensure effective adoption and use of the new system among all end users, a comprehensive change management strategy was developed in coordination with operational leaders, the EHR/RCM vendor and an external consulting partner. The strategy’s six important components were leadership engagement, establishment of readiness agents and provider adoption networks, a change impact analysis, readiness activities, measurement and communications (Figure 2). These elements were supported

with the use of the awareness, desire, knowledge, ability and reinforcement (ADKAR) Model (Prosci Inc) to target progress through change at group or individual levels or both. The ADKAR Model describes how an organisation raises these individual attributes for changes to meet the needs of the various stakeholders and to achieve project results.<sup>5</sup>

The sixth component of the strategy, and one often overlooked, is measuring the people side of change; a daunting task for a rapid-paced transformational change project affecting more than 53,000 people. As the change management team brainstormed options on how to gather and report feedback, various questions quickly arose. What methodology should be used to measure readiness for change and progress in making change? How often should measurement take place? What change readiness-related questions should be asked? How do we align measurement with the strategy and tactics? How is data visualisation created in a way that eases consumption and motivates leadership and staff to accept the new future state? How can data be used for rapid decision-making and real-time analysis? What trends should be tracked? After all, ‘If we measure the wrong thing, we will do the wrong thing’, according to Nobel Prize-winning economist Joseph E. Stiglitz.<sup>6</sup>



**Figure 2:** Change management strategy. EHR, electronic health record; RCM, revenue cycle management  
 Source: Used with permission of Mayo Foundation for Medical Education and Research.

Even though ‘change management has not been based on a data-driven model’,<sup>7</sup> Mayo Clinic put its trust in the change management team to develop methods that address these tough measurement-related questions. The team devised a way to share with leaders the measurable level at which the tactics for managing the people side of change were affecting the ability to make the change. Our team was excited to bring science and data to what has traditionally been a soft field.

The change management team was composed of Mayo Clinic staff from the departments of Management Engineering & Consulting (ME&C) (health systems engineers and project managers), Leadership and Organizational Development and Public Affairs. An external third-party vendor with expertise in organisational change management was contracted to advise and assist the change management team.

Essential staff from the EHR/RCM system vendor supplemented the change management team to support crucial work streams by providing expertise, resources and lessons learnt from similar initiatives at other healthcare organisations.<sup>8</sup> Team members supported multiple change management work streams, such as planning tactics for building awareness of the change, organising for future events such as expositions for the largest Mayo Clinic Destination Medical Center sites and facilitating readiness agent forums and provider advocate sessions. Only a fraction of their time was left to dedicate to the change measurement. Little did we know at the onset of team creation that we would need not only dedicated resources for the measurement component, but also deep knowledge and skills in high-level data science and analytics to effectively execute the measurement strategy.

## METHODOLOGY

### Survey design

As the change management team determined how best to measure and manage progress,

we desired to develop a process based on best practice research that was simple, powerful and easily used by all. Prior research focused on the attitude of change, whereas our team was focused more on the movement of change. We decided to leverage the current methods and tools for managing the people side of change that were available through our relationship with Prosci Inc. This approach meant tracking the journey through customisation of the simple ADKAR readiness assessment questions:

1. What is the current level of *awareness* of the need for change?
2. What is the current level of *desire* to support and participate in the change?
3. What is the degree of *knowledge* of how to change?
4. What is the *ability* to implement required skills and behaviours?
5. What is the level of *reinforcement* to sustain the change?

The ADKAR Model allowed alignment with our change management strategy to make it measurable and manageable. The survey results provided powerful data to drive any needed changes to our tactics by department or across the organisation or both.

In general, surveys give staff a chance to voice opinions and be heard.<sup>9</sup> The team decided to develop surveys for before and after the ‘go-live’ implementation cycle. The pre-survey focused on the awareness, desire and knowledge stages of the ADKAR Model. The goal of the post-survey was to gather hindsight on staff experience, attitude and satisfaction towards the change. The pre-survey and post-survey shared three questions for comparison purposes. The response scales were on a sliding scale of 0–100, which was later changed to a 5-point Likert scale, followed by open-ended questions for write-in comments. Table 1 shows the pre- and post-implementation questions.

**Table 1:** Pre-survey and Post-survey Questions by Principles

ADKAR Principle <sup>a</sup>	Pre-survey Questions	Post-survey Questions
Desire	I am committed to taking part in this change	NA
Desire	I feel that implementing Epic software is the right thing to do	NA
Awareness	I believe that Epic will make a positive contribution to patient care	I believe that Epic software has made a positive contribution to patient care
Awareness	I believe that Epic software will make a positive contribution to my work	I believe that Epic software has made a positive contribution to my work
Knowledge	My understanding is increasing about how Epic software will change the way I work	My understanding continues to increase about how Epic software will change the way I work
Desire	I am comfortable adopting Epic software, based on the level of information that I have received	NA
Awareness	I receive regular updates on Epic software that will impact my work	NA
Knowledge	NA	These resources (list of readiness activities) were helpful in preparing me for the Epic software implementation
Knowledge	NA	I could have been more prepared by participating in (list of readiness activities)
Knowledge	NA	I was prepared for the Epic go-live implementation
	NA	Overall, I felt the Epic go-live was successful
Ability	NA	Today, I feel confident performing my job using Epic software
	NA	The change to Epic software was much harder than expected/harder than expected/as expected/easier than expected/much easier than expected
	What do you feel is going well?	NA
	What do you feel could be improved?	NA
	NA	What else would you like to share about your Epic software experience?

Abbreviations: Epic, Epic Systems Corp; NA, not applicable.

<sup>a</sup> Awareness, Desire, Knowledge, Ability, and Reinforcement (ADKAR) Model; Prosci Inc.

Source: Used with permission of Mayo Foundation for Medical Education and Research.

### Survey schedule

After relevant questions were identified to measure the current state of ADKAR across the targeted groups, we developed a survey schedule to ensure strategically gathered perspectives of how change readiness activities were affecting change. Four pre-surveys were sent through e-mail quarterly and beginning a year in advance

of the go-live session. The two post-surveys were sent at 3 and 13 months, respectively, after implementation.

Because creating a single distribution list for only the affected users of the new system was complex, it was decided to send the surveys to all employees and request that only the users who would be affected by the change respond to the survey. Surveys



from the first go-live site were sent out at times similar to surveys to the next go-live site. This overlap added to the complexity of the analysis and reporting and emphasised the need for dedicated and skilled resources. Figure 3 shows the timeline of each survey in regard to the four go-live dates.

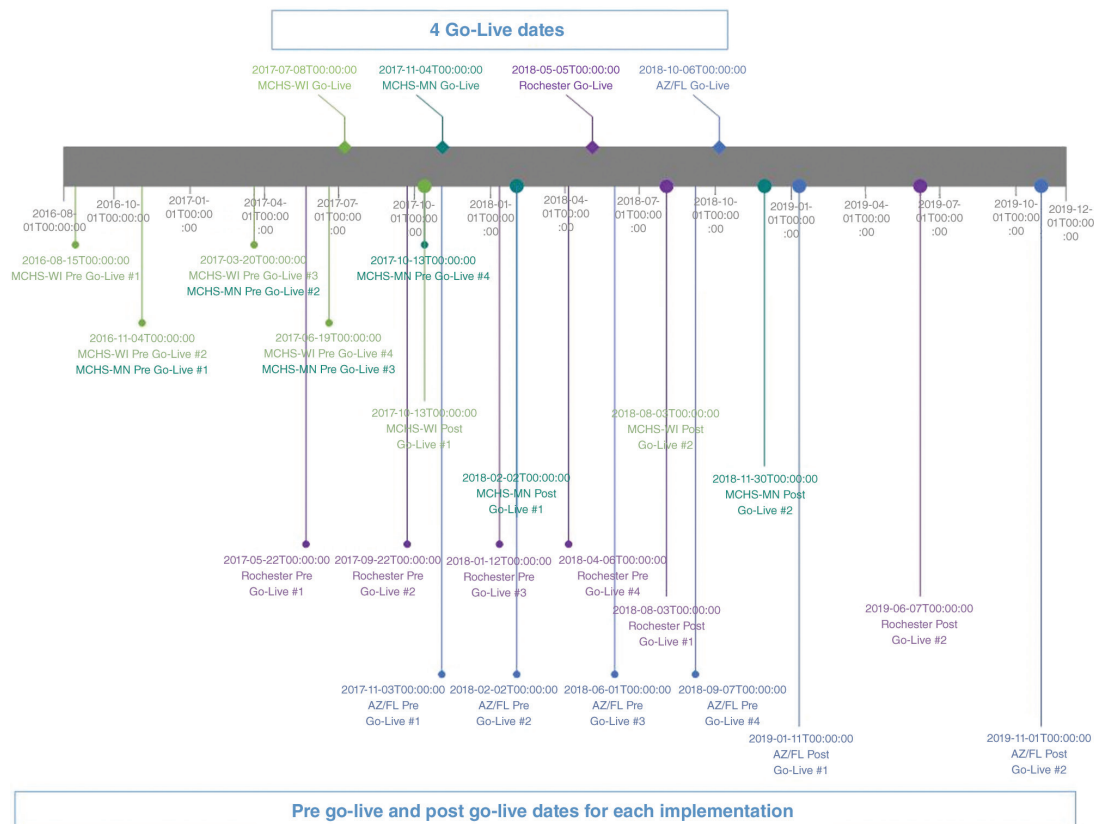
### Visualising the data

Our visualisation efforts for the Change Management Readiness Survey began with pivot tables and static graphs (Excel; Microsoft Corp) generated from the data and pasted into a presentation (PowerPoint; Microsoft Corp) (Figure 4). Their purpose was to provide regular reporting to project leadership and administrative sponsors about

staff readiness for system implementation. This effort quickly became problematic because site sponsors had additional questions they wanted answered from the data beyond what we had prepared.

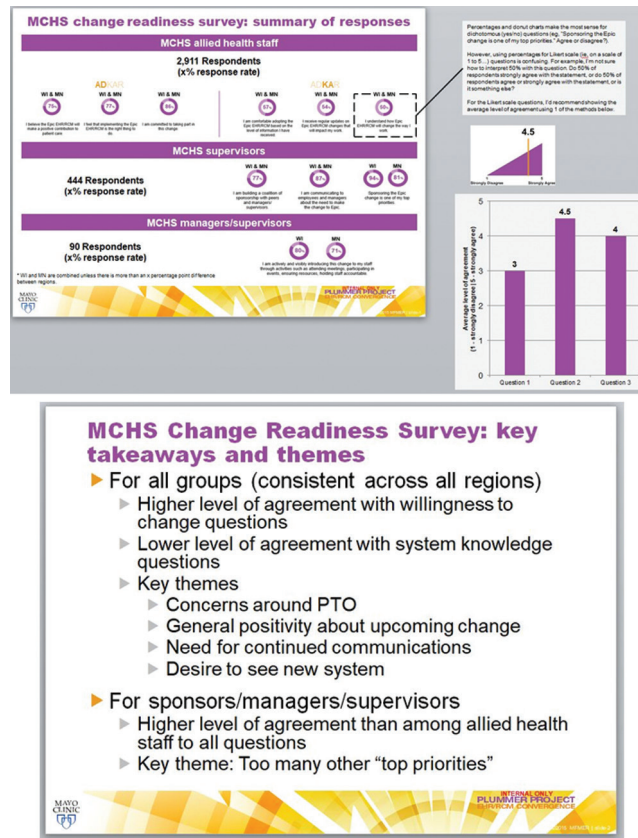
Site sponsors wanted to know how a particular department or a specific location was faring and how physicians were performing compared with allied health staff. We could not provide those answers in real time because these new data requests required us to build new customised pivot tables after the fact. The data presentation capability had some limitations: it was not dynamic, accessible or efficient and offered no flexibility.

To make important improvements in data visualisation, the change management



**Figure 3:** Survey time line. AZ, Arizona; FL, Florida; MCHS, Mayo Clinic Health System; MN, Minnesota; WI, Wisconsin

Source: Used with permission of Mayo Foundation for Medical Education and Research.



**Figure 4:** Survey results visualisation at the start of the project. ADKAR, awareness, desire, knowledge, ability and reinforcement; EHR, electronic health record; Epic, Epic software system (Epic Systems Corp); MCHS, Mayo Clinic Health System; MN, Minnesota; PTO, paid time off; RCM, revenue cycle management; WI, Wisconsin Source: Used with permission of Mayo Foundation for Medical Education and Research.

team acquired a powerful data visualisation tool (Tableau Software) to help resolve the barriers we faced. It was dynamic software, allowing for quick access to granular data to drive leadership actions, easy distribution and efficient provision of real-time answers.

Initially, the visualisation process was lengthy and fraught with struggles owing to data not being positioned properly (see Lessons Learned further on). This difficulty resulted in (1) a look and feel of the reports that was limited by how we could visualise survey data in Tableau and (2) evolving leadership questions and needs due to the size, scope, magnitude and complexity of each consecutive go-live implementation.

Quickly, it became apparent that we needed more expertise. We engaged the help

of a data analyst who specialised in high-level data science and analytics. The analyst was able not only to restructure back-end data but also to consult and assist in the design of the Tableau visualisation. This assistance provided an important leap forward for the change management team. Figure 5 shows a screenshot of the SQL Server Integration Service (SSIS) package (Microsoft Corp) used by the team. The SSIS package was used to clean and position the data. As we cleaned the data, we deleted incomplete and corrupt survey responses. Positioning of data involved an altered data format to better support data visualisation. The data were moved from multiple Excel spreadsheets into an SQL server database, which was used as the data source for Tableau visualisations.

## SURVEY DATA FLOW



**Figure 5:** Data clean-up and positioning. Excel, Excel software (Microsoft Corp); SSIS, SQL Server Integration Service; Tableau, data visualisation tool (Tableau Software)  
Source: Used with permission of Mayo Foundation for Medical Education and Research.

### Survey distribution

After repositioning the data for improved visualisation in Tableau (Figure 6), we were able to create a deliverable product that met all project needs.

- **Accessibility.** Tableau offered a solution to publish our visualisation to a server environment with a shareable link. We could embed that link on our enterprise intranet, pointing everyone to where they could access enterprise data and the data specific to their department or area.
- **Dynamic visualisation.** This element was critical. Leadership needed to view the change management progress and trends from one go-live site to another and to make any needed adjustments to their specific change management strategy that the data suggested. We created a visualisation with graphs and charts to present a comparative side-by-side view, for a simple look at their most current survey next to its predecessor. This visualisation also had the capability to compare the first survey with the last and to filter by site, role, department and

reporting structure, among other aspects (Figure 6).

- **Efficiency.** The tools allowed simple upload of data into Tableau for a plug-and-play format. This was an improved alternative to our initial process of manually creating numerous Excel pivot tables for various metrics and then adding them into a PowerPoint presentation of more than 100 static slides.
- **Flexibility.** Tableau had the added benefit of flexibility. With each go-live session, we encountered different challenges to access and display data that ranged in size, scope and complexity, and so the added flexibility was essential to our success. We valued not having to recreate new from-scratch summary reports every time a survey ended.

The write-in comments from every survey were read and manually categorised into themes. Actual text from the survey comments was available in the visualisation display, which could be filtered by departments, divisions, roles and sites.



**Figure 6:** Modified survey results visualisation. Epic, Epic software system (Epic Systems Corp); SRO, Site Readiness Owner; RST, Rochester, Minnesota  
 Source: Mayo Foundation for Medical Education and Research.

## RESULTS

### Survey response results

Six surveys (four before and two after go-live implementation) for each site were sent by e-mail to more than 53,000 employees, totalling more than 318,000 surveys. On average, response rates were expected to hover around 20 per cent for a survey of this magnitude, on the basis of information collected from the Mayo Clinic Survey Research Center. We largely maintained these rates throughout the survey schedule. For our largest site — Rochester, Minnesota — that equated to 4,000–5,000 responses for each survey. Our Arizona and Florida colleagues, whose systems went live later, were able to create a higher level of engagement with the surveys. Their response rates reached 40 per cent on a pre-survey. Post-survey response rates hovered closer to 17 per cent. The last survey (13 months after the go-live) from Arizona and Florida, however, had a response rate of only 11 per cent. Decreased

response rates at the end might relate to less engagement during the phase after go-live implementation of the project and a shift in priorities by practice areas and end users.

### Action plans for project and department leadership

We shared survey results with project leadership at regular intervals and broadly throughout the organisation. The change network, which included department leaders, physician leaders and clinical and non-clinical champions, received high-level survey results to allow collaboration with department leadership and promote awareness within their work areas. A condensed version of the results was also published on the internal project website and made available to all staff.

Project leaders used the data to get an idea of potential adoption rate and the effectiveness of change management

activities and to understand the challenges and concerns raised by staff. A more detailed version of survey results was shared with department leadership. The leaders were encouraged to review the survey data, including staff comments, and to take necessary steps to improve communication, spread awareness, create desire and reinforce the project needs in accordance with their departmental needs.

Clinical department leaders used the survey results to craft tailored communication to staff. For example, after the first go-live cycle, staff reported that the change was harder than they had expected. Practice leaders then created a specific communication to the remaining sites to set realistic expectations, and acknowledgment of this fact also helped to show empathy during the transition.<sup>10</sup> In addition, department-specific champions created innovative ways to spread awareness and to ease the tension.

### **Action plans for the change management team**

Our approach was phased implementation (four go-live cycles across five sites spanning 15 months). We were able to compare and contrast the ADKAR journey from one go-live event to the next. Results of the prior surveys and the challenges associated with building the ADKAR Model for change at a specific site's go-live event became valuable input for the next go-live site. Each set of site-based results for change management efforts became input for planning and for targeted activities and interventions to drive better readiness for the next site.

For instance, at our first go-live site, department leadership missed engagement of site-based managers and supervisors and instead focused on front-line staff. The initial employee readiness survey scores reflected this situation. After we got agreement from leaders that improved staff awareness, desire and knowledge for the change would have high value, we garnered increased critical project

leadership support for this involvement in the next go-live cycle. Leaders at the next site actively engaged their supervisory staff to help employees make the changes. They consistently held the supervisory staff accountable for driving change management locally. To do this, the leaders needed confidence in and easy access to the specific reporting group's survey data to maintain awareness and accountability for their progress.

The go-live event is where the ADKAR Model stages of knowledge, ability and reinforcement blossom. These stages were not able to happen until near the go-live date. Therefore, we were deliberate in ensuring strong readiness for change (awareness and desire) in staff before training. We drove this readiness by providing monthly change readiness agent network sessions, thereby addressing and building their awareness of the need to change and their desire to support the change. Managers chose and empowered their readiness agents with the ability to drive the ADKAR Model at the work unit level with staff through communication and targeted activities.

When reviewed together, the pre-survey and post-survey data gave us longitudinal insight into the traction of our efforts and the attitudes of staff towards the new system. The data also allowed us to identify gaps in our efforts and to make necessary refinements to the change management strategy that were more targeted to staff needs. This particular benefit — staff feedback from the surveys — was critical to our measured success. Staff input would prove the value of change management to achieve the project goals and the enterprise practice convergence goals.

Of note, thousands of free-text comments were received, focused on what was going well and the areas that needed improvement. Our team analysed every staff comment, synthesising common themes for leadership review. For example, comments indicated the need for a playground environment to practice workflows to increase the exposure to and awareness of future-state workflows.



An exposition was scheduled; demonstrations and walkthroughs were conducted to share the future state. Because the data showed a need, we created a practice environment for staff and, paired with unique workflow scripts, this allowed staff to explore and increase their comfort level within the system. Sneak peek videos were created with the help of physician champions to increase awareness about specific functionality within the system. Many of the comments were out of scope for the change management team and were passed to other teams, such as build, project management and training teams, to take the necessary steps.

From responses on a Likert scale, feedback comments and other measures of change readiness, we were able to effectively track our progress towards our desired ADKAR journey throughout the implementation.

### **Lessons learned**

If the change management team could go back in time and try again, what would we do differently? If we had started with the end in mind, we would take the following actions.

#### *Assign dedicated change measurement resources*

The effort associated with survey creation, analytics, communication and execution was much greater than the team had anticipated. It was crucial to ensure that the change management team had the right skill sets. Although the team had experts in change management and business integration, we did not have a data analyst initially to help clean up and organise large amounts of data for proper display. We also underestimated the magnitude of survey data we would receive. Engagement initially of a data analyst's design expertise would have eased the development of this large-scale survey. We ended up having more than 44,000 cumulative survey responses. The team essentially created a minimally viable product and refreshed the product data until we brought on the data analyst to assist

in the real-time display of data. If we had to do it again, we would expand on the budget to an appropriate scale of change management resources that would include a data analyst.

#### *Measure data with a purpose in mind*

We found that collecting data for the change management effort was useful only when we mapped each question to ADKAR. What questions were we trying to answer? Were we measuring awareness, willingness to change, resistance to change, leadership engagement or other aspects of change? What actions could we take using the results? What insights might the data provide? Who would use the data?

We recommend that you consider the best practices for your survey respondents. Who is the survey sender? (A known local leader may be more effective than a project leader.) Which is the best day to send the survey? (For us, Friday was less busy, so people were more likely to open the survey e-mail.) How long should the survey stay open? For example, a three-week window was better than a two-week one because hospital nurses change shifts every three weeks.

#### *Plan with the big picture in mind*

This approach is especially critical when the team is doing longitudinal surveys, comparing different groups or conducting pre- and post-surveys. We (1) added a question from pre-survey 1 to pre-survey 2 for our first two go-live sites, (2) changed the response scale to a 5-point Likert scale between pre-survey 2 and pre-survey 3 for the first two go-live sites, (3) modified the survey questions when we started the survey sequence for the third go-live site, (4) had inconsistent demographic options because of different organisational structure at each go-live site, (5) changed some demographic responses from single-select to multiselect options and (6) did not plan in the beginning to have surveys after go-live. All these aspects added complexity and a lack of site-to-site alignment for comparison with the already

complicated data structure. We needed up-front additional resources and planning time to make data visualisation work from the first to the last go-live sessions. We also could have tested the survey questions with selected stakeholders or staff to solicit feedback.

### *Use data visualisation tools to tell a better story*

We designed the survey with the ADKAR Model in mind. Yet the presentation of the data to leadership or other audiences came almost as an afterthought. Leadership was satisfied with the basic results (eg overall averages) at the project start, but as the go-live dates got closer, leadership was more interested in dynamic results that would allow for fulfilment of their roles in leading others to make change. For instance, they wanted to be able to compare different sites by the different roles or departments or to see data trends on the spot and use the trends to focus their attention to areas that most needed leadership. Departmental leaders were interested in focused data for their departments, in addition to the high-level data for the whole institution. We advise you to be proactive and carefully consider who will use the data and then design the survey and visualisation accordingly, catering to specific audience needs.

### *Make the data visualisation easy to understand*

When we first designed the visualisation, we wanted to be good stewards of the data and included standard deviations, outliers, box and whisker charts, geocoding maps and more. We soon discovered with a pilot audience that ‘less is more’ and ended up using simple bar graphs and pie charts that were easy to understand. A consistent colour scheme was used for similar response scales —blue is favourable, grey is neutral and orange is unfavourable — making it easy to

understand data quickly. As a result, we heard comments such as ‘We have more blue in this survey compared with the last one!’ (We avoided green and red, accounting for colour blindness.)

We also used filters so it was simple for the end users to manipulate and compare the data without having to ask the change management team for additional analysis. Lastly, we added a ‘How to Navigate the Dashboard’ page as a quick reference guide for anyone needing additional information.

### *This was not a scientific study*

For many of us who read scientific journals and do advanced analytics, we had to take a step back and remember the purpose of collecting and reporting change management data. We were using the survey as a feedback pulse check for our leaders and the change management team to modify change management activities rapidly during a go-live cycle. We also used survey results to improve our strategy for the next go-live. In an organisation where research is a strong focus, we were tempted to design a control study or validate the questionnaire, similar to a scientific study. To use our time and resources wisely, we had to recognise that such scientific rigour was not our goal.

### *How to combat survey fatigue*

Surveys were sent at regular intervals throughout the implementation. As the project progressed, staff were taken out of patient direct-care duties to attend mandatory training and participate in readiness activities. Thus, they had less time to respond to surveys. Additionally, staff were participating in other surveys that were both related and unrelated to the implementation.

Creative strategies were used to help motivate staff to answer the survey, to increase the response rate. Automated e-mail reminders were sent to any staff member

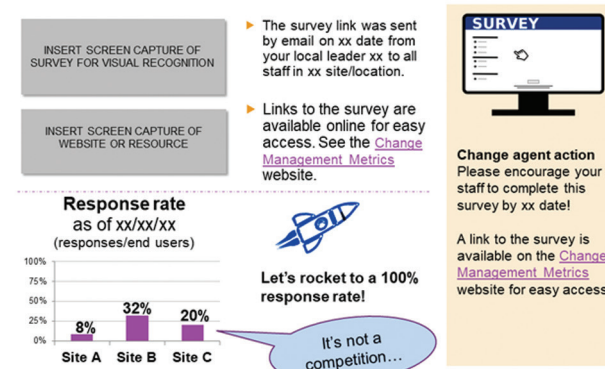
who had not opened the survey link. The most effective approach included leveraging leadership outreach and messaging during established leadership meetings with staff. During the go-live events at Arizona and Florida sites, the change management team designed a survey promotion campaign that created friendly competition among the go-live sites, to motivate staff to complete the survey and determine which site could reach the highest response rate (Figure 7). Response rates were published in various communication venues, including leadership meetings, provider forums, allied health staff forums and manager and supervisor outreach programmes. The staff enjoyed seeing updates regarding response rates, and the campaign was a fun way to keep them

engaged in the survey data collection and result process.

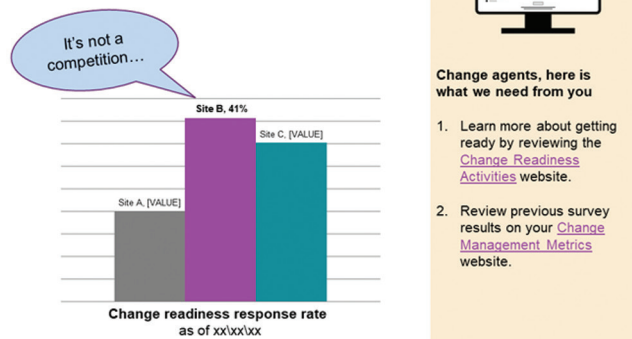
### Handoff to operations

After all sites completed a go-live cycle, the change management strategy needed to be sustained. Because members of the change management team rotated off the project as each site went live, it became difficult to reinforce the change on the operational side. Communications shifted from a project and go-live focus back to day-to-day operations, and staff did not know where to find the latest information. This resulted in the creation of an awareness campaign for operations that would assist with communication and outreach and help

### Complete the change readiness survey!



### Thank you for completing the survey



**Figure 7:** Survey promotion campaign

Source: Used with permission of Mayo Foundation for Medical Education and Research.

ensure that all staff were aware of where to find critical information when it was needed.

In summary, the lessons we learned prompted us to create a change adoption and measurement checklist (Appendix) to guide other teams through future change management efforts.

## CONCLUSIONS

### Why measure change management?

Measurement of change management effectiveness was critical to ensure the success of this large-scale implementation that affected more than 53,000 employees. Survey data provided the status of the people side of change and helped enforce accountability. The findings and lessons learned from each survey also helped create action items to improve the next go-live cycle. Failure to succeed would include substantial operating losses and negative effects on our staff and patients.

### Why is a change management framework essential?

Project leadership and the change management team were diligent about providing adequate dedicated resources focusing specifically on change management, including measurement. We were process driven and deliberate in applying change management methods and measuring the effects of change management efforts. The ADKAR Model survey provided a simple communication tool and feedback loop to leaders and managers around their staff's status to embrace and adopt the change. Finally, we created structured, reliable, accurate and consistent measurement and feedback loops through purposeful application and timing of ADKAR surveys customised for this change.

### How can measurements and surveys be meaningful and applicable?

Project leaders and managers of change used the survey data to communicate an accurate and compelling story about what was working and what needed modification

in change management efforts to reach our goals. The measurements could be translated to all audiences in a way that was meaningful and applicable to them. Survey and measurement over time helped identify specific risks of driving the ADKAR strategies for groups and individuals that could then be addressed in appropriate ways by those who were a trusted voice for change in the areas that were struggling.

The results over time helped us adapt and improve overall change engagement efforts on the basis of data that indicated broad areas of risk. This approach also allowed us to apply lessons learned in managing change in prior go-live cycles to future go-live implementation, thereby avoiding a repeat of history. The measurements created important and compelling feedback data from the front-line staff about their progress in adapting to changes that we could confidently share with leadership who led the change.

Our change management results strongly resonate in our research-focused academic medical centre environment. Ultimately, measurement of the ADKAR Model allowed leadership to have the evidence needed to actively and visibly support their staff through change — the primary driver of excellence in change management.<sup>11</sup>

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## APPENDIX: CHANGE ADOPTION MEASUREMENT AND REPORTING STRATEGY CHECKLIST

Use this checklist to ensure you create and implement an effective strategy to measure and drive adoption for your change.

### Change Project Demographics

- What is this change-related project called?
- Why are we making this change? Why now?
- What is changing?
- Who will need to embrace and adopt this change?
- What is the magnitude of this change?
- What is the current organizational readiness to resistance level for this change?
- What audiences do we foresee may be most resistant to the change?

### Change Adoption Measurement and Reporting Strategy

- Why do we need to measure the progress we are making in people embracing, adopting and utilising our change?
- What are our desired results and objectives for this change (time, budget, return on investment)?
- How will we measure the progress of employees in embracing, adopting and utilising this change? What is our change

adoption progress scale that will target and drive tactics to improve achieving adoption?

- Who are our measurement audiences?
- When/how often do we need to report employee adoption progress to achieve driving adoption?
- What is our measurement and reporting schedule across the time frame of the overall project?
- What resources do we need to support effectively measuring and reporting change adoption?
- How might the data serve to support and reinforce those who provide and use the data effectively to drive adoption?
- How will we hand off measuring and sustaining adoption to operational owners?

### Audience-Specific Measurement and Reporting Tactics

- What data do various audiences need to see to most effectively manage and drive adoption?
- In what purposeful and easily digestible format do they prefer to see the data?
- What will sponsors of the change do with the change adoption level feedback to drive adoption?
- How is the Change Management team going to use the data to modify tactics?

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