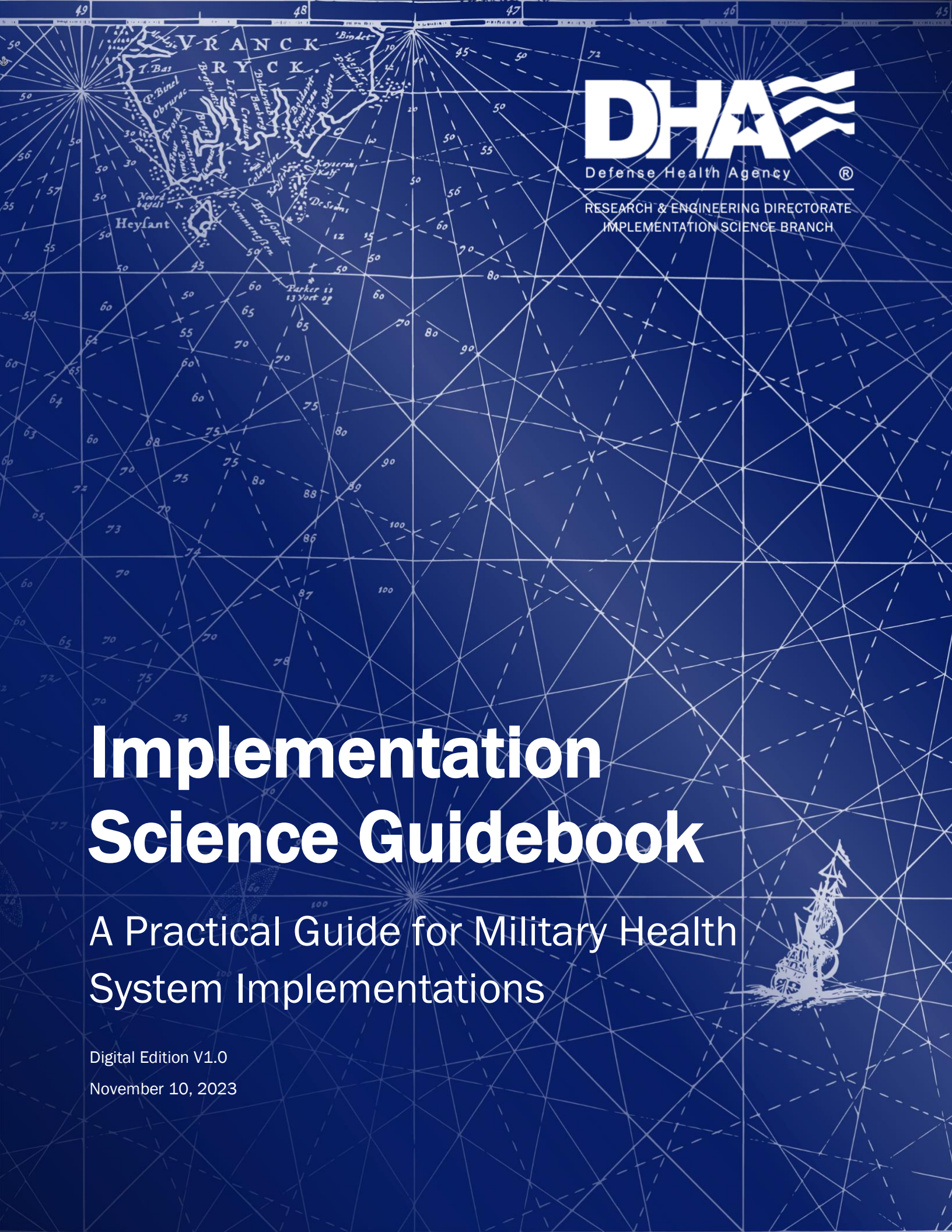

DHA
Defense Health Agency ®
RESEARCH & ENGINEERING DIRECTORATE
IMPLEMENTATION SCIENCE BRANCH

Implementation Science Guidebook

A Practical Guide for Military Health System Implementations

Digital Edition V1.0

November 10, 2023

Welcome to the Implementation Science Guidebook

The Research & Engineering (R&E) Implementation Science Branch (ISB) is pleased to present this Implementation Science Guidebook to health system leaders, managers, clinicians, and staff across the Defense Health Agency (DHA) and the Military Health System (MHS). This guidebook offers practical strategies for implementing guidelines, policy, and evidence-based practices.

From battlefield to bedside, the MHS is characterized by a dynamic health care delivery environment, global footprint, and diverse beneficiary population. As a result, the MHS provides unique challenges and opportunities when operationalizing impactful projects into widespread adoption – particularly now, as the MHS seeks to modernize and stabilize its health delivery system to support our Nation by improving health and building readiness.

Implementation science helps move research and evidence-based practices into widespread clinical practice. We have incorporated and built on widely recognized implementation science frameworks and strategies with the military health setting in mind, using the collective knowledge gained through nine years of consultation and collaboration in the MHS.

We hope this guidebook and its associated templates become essential tools for you, optimizing the effective adoption of evidence-based practices within your organization. For additional information or resources, please email the R&E ISB team at dha.ncr.j-9.mbx.isb@health.mil.

Lynn B. Hallard
Acting Chief, Implementation Science Branch
Research Support Division
DHA Research & Engineering Directorate

> *To access the implementation science tools and templates library, visit the ISB SharePoint Site (internal, CAC-enabled).*

This guidebook is made richer by lessons learned from working with consultation partners and other DHA organizations, who have provided invaluable insight into the adoption and sustainment of implementation science leading practices over the last nine years.

We especially acknowledge the leads of the Direct Access to Physical Therapy project, including Dr. Carrie Storer, for affording us the opportunity to integrate this case study within the guidebook.

We also thank R&E leadership for strengthening the implementation science capability in the MHS through their tremendous guidance and support.

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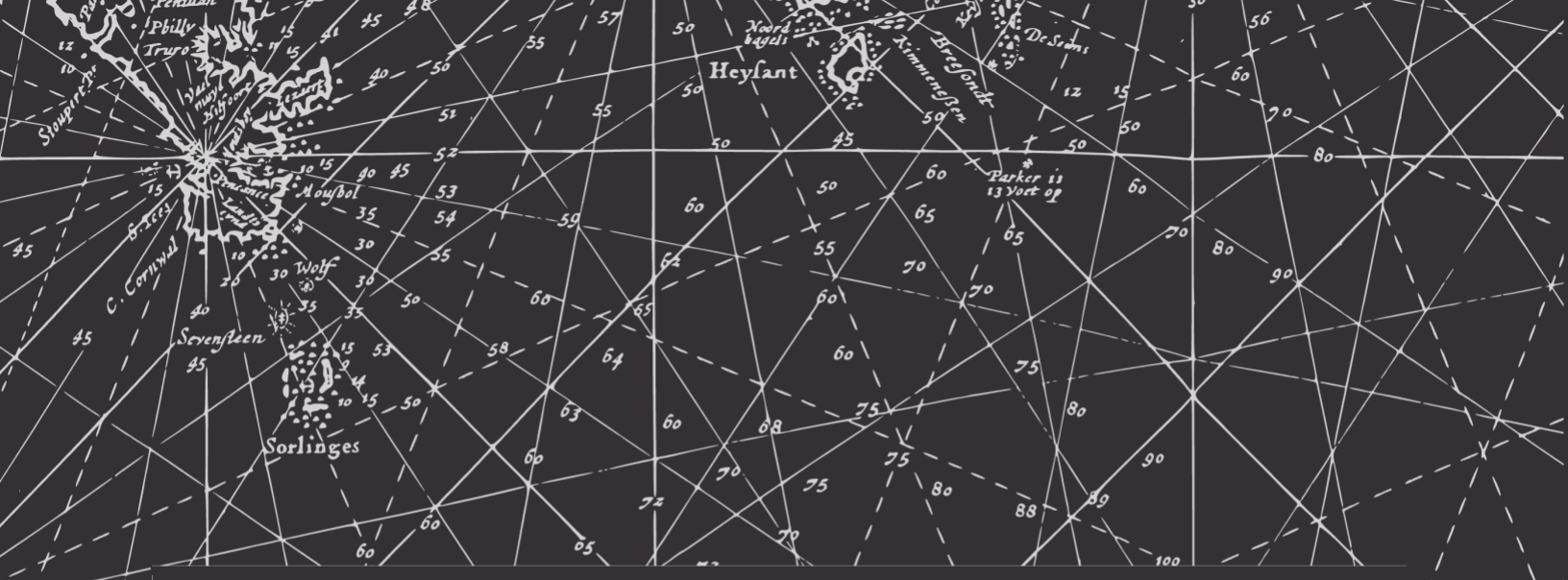


Introduction

Implementation science is the scientific study of methods and strategies that facilitate the uptake of evidence-based practice and research into regular use by practitioners and policymakers.[1] Evidence-based knowledge solutions are clinical practices, processes, or innovations that are strongly supported by data, research, and outcomes. Incorporating implementation science into your organization's operating procedures can help facilitate the rapid uptake of knowledge solutions to accelerate the improvement of patient care.

While implementation science is a wide-ranging field that includes scientific and academic research, this Guidebook focuses on the practical application of the field's leading practices when implementing evidence-based solutions in a military health environment. These leading practices include project management, dissemination, implementation, and assessment (PM, D, I & A):

1. **Project Management**
   The establishment of plans and processes and the management of resources with the aim of meeting project goals.
2. **Dissemination**
   An active approach of spreading knowledge solutions to target audiences via determined channels using planned tactics.
3. **Implementation**
   The use of strategies to adopt and integrate knowledge products within specific systems.
4. **Assessment**
   The proactive measurement and evaluation of dissemination and implementation efforts, including reach, adoption, process variables, and project outcomes.

Within the Defense Health Agency (DHA), implementation science is employed to accelerate the movement of evidence-based knowledge solutions into widespread clinical practice. These knowledge solutions can take many forms, but may include Clinical Practice Guidelines (CPGs),

policies, administrative instructions (AIs), procedural instructions (PIs), and standard operating procedures (SOPs), among others.

While the Implementation Science Branch (ISB) within the Research & Engineering Directorate (R&E) partners with organizations across the DHA to provide expertise on PM, D, I & A, these leading practices can be incorporated into the regular operating procedures of organizations without specialized coaching.

How to Use the IS Guidebook

This Guidebook, process map, and accompanying resources have been developed to provide step-by-step guidance on applying these leading practices to the execution of any implementation project related to military health, from project selection to final reporting and sustainment.

Structure

The Guidebook mirrors the structure of its process map (see page 7), and its color coding. The IS process map begins with receiving a candidate project and concludes with final project reporting and sustainment. Each process is associated with an IS discipline area, **project management**, **dissemination**, **implementation**, or **assessment**, and numbered sequentially.

Figure 1. Guidebook Structure

Although each process is assigned a discipline area and sequence, real-world application of these activities often overlaps. Dynamic application of these processes and adaptation to setbacks or new information are hallmarks of an effective, integrated project team. Revisit previous processes when needed to ensure your project is on track to achieve its desired outcomes.

Navigation

For ease of navigation, there are section links throughout this document.

1. **Page Footer:** Links to the IS Process Map and to the first page of the PM, D, I, & A sections can be found in the footer of each page.
2. **IS Process Map:** Click on any process step in the IS Process Map to jump directly to its section.
3. **PM, D, I, & A Section Navigation:** The process step graphic on the first page of each section acts as a horizontal menu that will allow you to jump to each process step.

There are also links embedded in the text when a past or forthcoming process step (e.g., A2. Site Selection) is mentioned, an IS Tool or Template is discussed (e.g., **D2. Audience Profile**) or a glossary term appears (e.g., implementation science).

Case Study Introduction: Direct Access to Physical Therapy (DAPT)

In 2021-22, ISB supported a project to standardize appointing procedures for DAPT across the MHS. Throughout the IS Guidebook, we will use the DAPT case example to provide real-world, contextual examples of IS process steps, activities, and tools.

Project Background:

- DAPT is the ability to obtain physical therapy evaluation and treatment without a referral from a physician or other healthcare provider after screening criteria are met.
- Every year, musculoskeletal injuries in the military account for over 2 million health care visits, 25 million lost duty days, and costs exceeding $700 million.[2]
- DAPT speeds up recovery time, results in fewer visits, and lowers the likelihood of reinjury or chronic pain.

Pictured Above: September 12, 2017 - Physical Therapist Sgt. Darren Harvey provides therapy to a patient. Courtesy of the Army Enterprise Marketing Office.

Project Selection: DAPT, implemented by Madigan Army Medical Center (MAMC), was selected as the winner of the Clinical Quality Improvement Leading Practices Program in 2020-21. ISB partnered with MAMC to standardize processes, tools, and materials for broader use in the MHS.

Results: ISB supported a successful pilot in the Puget Sound Market* and the development of scale-up infrastructure across the MHS. *Previously, military clinics and hospitals were organized into 20 DHA Health Care Markets. Since October 2023, every facility has been aligned to one of nine Defense Health Networks.

PM, D, I & A Activities

Project Management

ISB established systems and documentation to ensure standardization, scale, and spread of the DAPT project.

Example Activities:

- Organizing stakeholder group with diverse perspectives.
- Prioritizing project needs and gaps.

Dissemination

ISB increased awareness of DAPT availability and appointing procedures through a robust communication plan.

Example Activities:

- Identifying target audiences and completing profiles.
- Developing communications materials and products.

Implementation

ISB provided instruction and support for providers and staff to facilitate uptake of DAPT.

Example Activities:

- Building site capacity through identification and support of local DAPT champions.
- Providing training on appointing procedures to appointing personnel.

Assessment

ISB offered recommendations on metrics to measure the adoption and impact of DAPT.

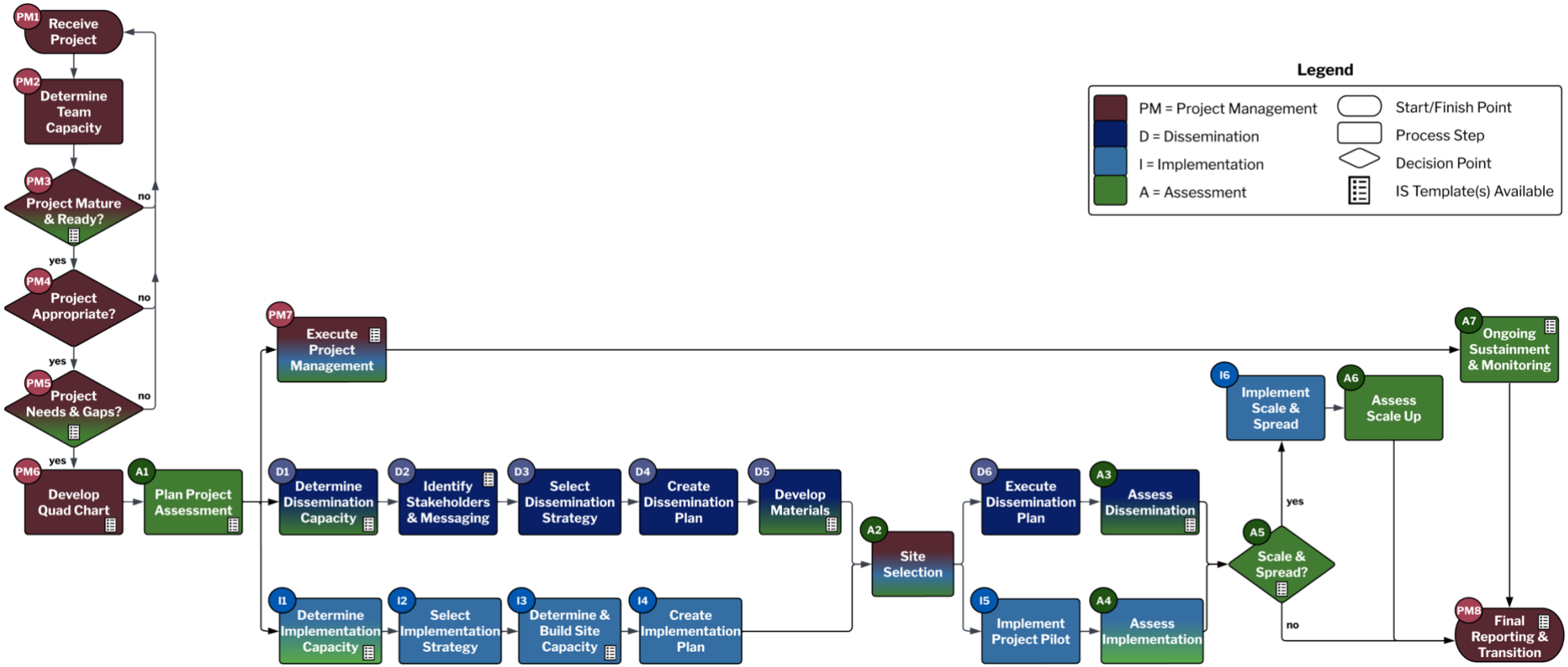
Example Activities:

- Identifying coding solutions to distinguish DAPT from other types of physical therapy appointments.
- Conducting usability testing to determine usefulness of the standardized booking protocol.

Throughout the rest of the Guidebook, keep an eye out for blue boxes like this one (labeled "DAPT Case Study") to learn how ISB applied specific IS strategies and process steps to the DAPT project.

IS Process Map

The IS process map (figure 2), shown below, is clickable. Clicking a process step will allow you to jump to the respective process step's section of the Guidebook. For example, clicking "PM1. Receive Project" on the top left corner will take you forward two pages, into the project management section, where this process is discussed in detail. The table of contents (page 2) is similarly linked and lists each process step.



IS Tools and Templates

To access, view, and download all resources in the implementation science tools and templates library, visit the ISB SharePoint Site (CAC-enabled).

Project Management

PM3. Project Readiness Assessment | Scope a project based on impact and level of effort.

PM5. Needs and Gaps Assessment | Prioritize support by discipline and tailor collaboration.

PM6. Quad Chart | Organize resources and elements to determine next steps and action items.

PM7. Plan of Action and Milestones (POAM) | Identify project activities and deliverables, assign task owners, and establish timelines.

PM8. Final Reporting Template | Customize a template report with pre-populated sections.

Dissemination

D1. Dissemination Capacity Assessment | Assess your dissemination capabilities and strategies.

D2. Audience Profile | Determine target audiences, channels, tactics, strategies, and key messages.

D5. Focus Group Script | Develop a script to facilitate a focus group and incorporate feedback.

Implementation

I1. Barriers and Facilitators Assessment | A tool to identify project barriers and facilitators.

I3. RACI and Roles/Responsibilities | Clarify accountability for project tasks.

Assessment

A1.1. Logic Model | Organize program inputs, activities, outputs, and outcomes.

A1.2. SMART Goals | Develop SMART objectives to guide targeted and specific data collection.

A1.3. Assessment Methods Matrix | Prepare performance tracking according to data requirements.

A3. Data Collection and Analysis Worksheet | Collect data strategically to ensure a quality analysis.

A5.1. Lessons Learned Log | Record project successes and failures to ensure future improvement.

A5.2. After Action Review | Determine key takeaways and process changes for future efforts.

A7. Sustainment Planner | Review findings to prioritize assessment-informed programmatic actions.

Project Management

Project management is the establishment of plans and processes and the administration of resources with the aim of meeting project goals. Project management leading practices should be applied when implementing knowledge solutions to oversee project activities. These practices can help your team execute tasks that are within scope and budget, clearly aligned to organizational priorities, and staffed with the correct blend of expertise.

Below, Steps PM1-5 discuss preliminary factors that your team should consider prior to selecting and initiating an implementation project. Following each of these steps before beginning your implementation work will ensure that the knowledge solution is appropriate and ready to be implemented, thereby laying a solid foundation for the rest of your efforts. If the decision to initiate a project is made prematurely or without sufficient understanding of the work required, your team may find itself attempting to execute a project without the proper infrastructure or resources in place.

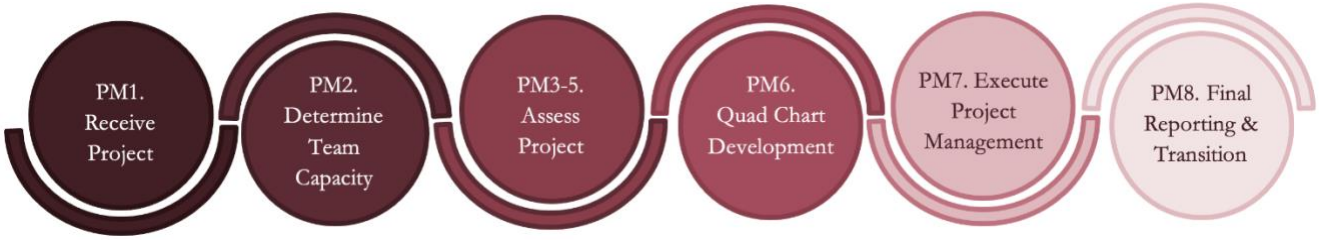
To confirm that your team is prepared to implement the knowledge solution, use Steps PM1-5 as a guide for that decision-making process before formalizing project details in Step PM6. Develop Quad Chart.

Project Management Key Terms

1. **Solution Maturity**
   Refers to a solution's readiness to undergo the dissemination, implementation, and assessment processes to provide value.
2. **Level of Impact**
   A measure of project readiness that accounts for a knowledge solution's relevance and effectiveness.
3. **Level of Effort**
   A measure of project readiness that accounts for a project's status, support, degree of change, and assessment procedures.

Figure 3. Overview of Eight Project Management Processes

The figure below outlines the eight sequential project management process steps covered in this section of the guidebook. Note that processes three through five are grouped together in this figure, as they each act as decision points in the assessment of project fit. Click on a process in the figure below to jump to its corresponding section.



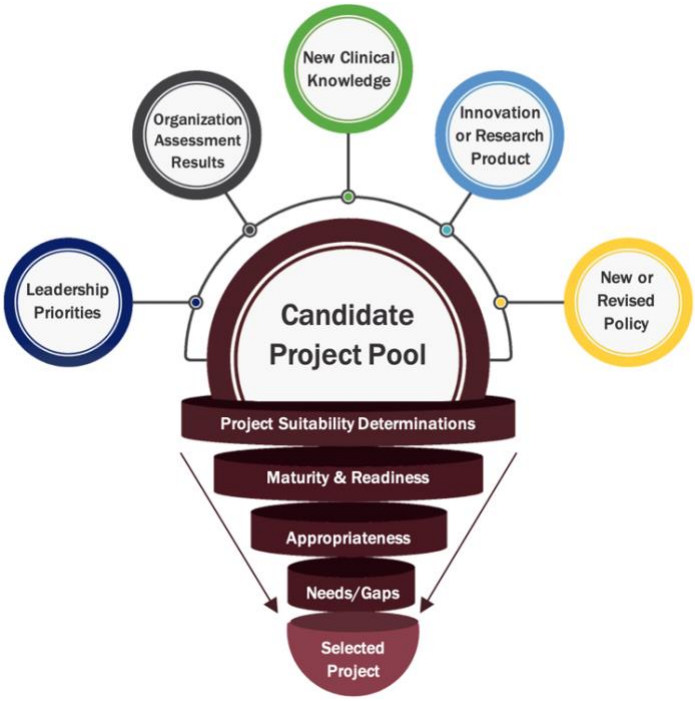
PM1. Receive Project

Organizations should have a systematic process for identifying and determining when to initiate a new implementation project. New projects can be generated from an established pipeline consisting of multiple sources, including, among others:

- Leadership priorities
- Results of an organizational assessment to meet a clinical need or gap
- Transition of an innovation or research project that has demonstrated effectiveness
- Newly developed clinical recommendation
- New or revised policy

Because implementation project execution requires significant time, resources, and effort, validate whether a project meets established criteria prior to initiation of work. Steps PM2-5 outline several considerations when determining if your team is ready and available to complete the work and whether the project is mature and appropriate for implementation.

Figure 4. Project Sources and Selection



PM2. Determine Team Capacity

Transitioning a knowledge solution into practice requires support and expertise across various skillsets, including health communications, health policy, implementation, business processes, project management, and evaluation. When building your implementation team, consider if the skillsets required to meet project-specific needs are available within your organization or should be leveraged from external sources. For example, a project involving a robust communications campaign to increase patient awareness would require support from a health communications subject matter expert (SME) to build the communications campaign (e.g., patient infographics and social media plan), as well as an assessment SME to evaluate the effectiveness of those strategies.

Next, determine if those team members have the time and availability to support the new project based on the project's expected timeline. As an example, an assessment SME may be required both at project initiation (to identify intended outcomes and to build out a logic model), and then again towards the end of the project (to support data analysis and interpretation).

Regardless of project scope, a project lead should be assigned to outline and oversee activities, coordinate across team members, and manage the schedule. Project leads are also responsible for matrixing subject matter expertise across tasks and carefully managing level of effort and personnel types over the course of a project.

PM3. Project Readiness

Project readiness refers to the suitability of the project for implementation, accounting for knowledge solution maturity and priority level, as well as levels of effort and impact.

Knowledge solutions typically follow a comprehensive process from maturity to evidence synthesis, to solution development, to transition. Once a knowledge solution has an evidence basis indicative of its effectiveness and has been formalized (e.g., in a clinical recommendation or policy), it has reached sufficient maturity to be transitioned to end users. Although solution maturity is an important variable when determining project readiness, remember to assess other considerations, including the solution's prioritization, its level of impact, and the level of effort required to implement the solution. Making these determinations up front enables your team to expend time and resources on those solutions that are most likely to be successfully implemented.

Complete IS Template **PM3. Project Readiness Assessment** prior to beginning an implementation project to determine if the knowledge solution is ready to be transitioned to end users and if it is worth the time and effort for your team to support implementation. When completing this tool, coordinate with any external stakeholders (e.g., SMEs, leadership, etc.) who will be heavily involved in project execution or in the final determination of whether to initiate the project.

This tool consists of two categories for consideration:

1. Level of Impact

Relevance – How prevalent is the problem the solution is addressing and how will the knowledge solution remediate it?

Effectiveness – Does the solution effectively address the problem and is it widely accepted? Do you anticipate any resistance from the end user community in adopting the solution?

2. Level of Effort

Project Status – What preparatory and planning activities have been completed? What resources are required to implement this solution at a site? Has a pilot been conducted?

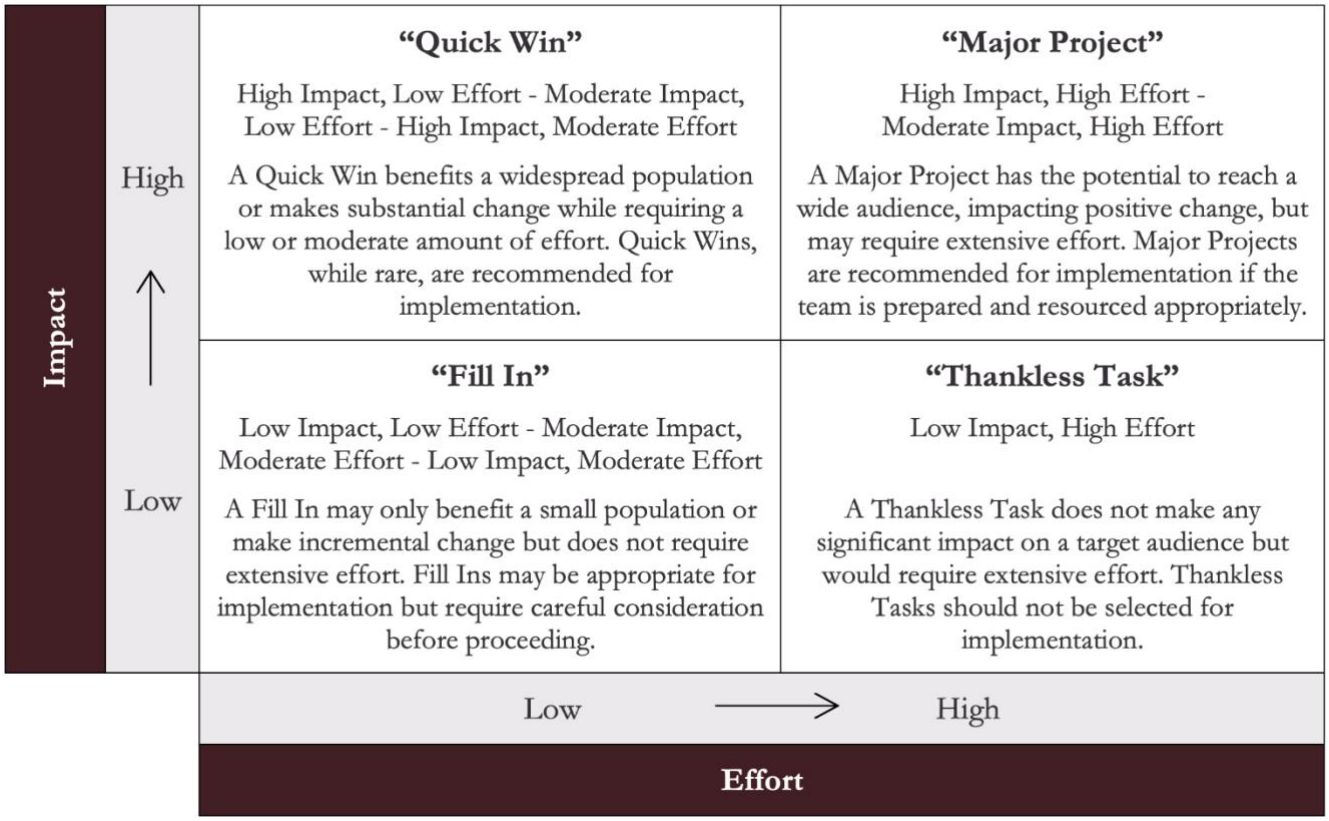
Support – What kinds of leadership engagement, drivers, or policies/mandates are in place to support this solution?

Degree of Change – How different is this solution compared to current practice? Is execution of this solution feasible? What barriers impact implementation? Is this solution standardized, sustainable and scalable?

Project Assessment – Are there clear and measurable goals, objectives, and outcomes for this knowledge solution? How will metrics be collected moving forward and is the data accessible?

Use the following Level of Effort/Level of Impact matrix to determine if this project should be executed. Follow the guidelines below to support your decision. If the project is not considered ready to execute based on current results, revisit your assessment as project aspects change (e.g., if the solution is later published in a policy).

Figure 5. Level of Effort/Level of Impact Matrix Adapted from [3]



PM4. Project Appropriateness

Project appropriateness refers to the project's alignment with your team's current capabilities and capacity. Assuming that the knowledge solution has been deemed mature and ready, this is the step where you determine if the environment and timing are favorable and if your team is the right fit to implement this solution.

If your team determines that the project is ready to execute based on the results of IS Template **PM3. External Readiness Assessment**, determine if your team is available and equipped to support the project. Timelines should be considered when making final determinations on project appropriateness. For example, your project may be low effort; however, external timelines, such as competing priorities, may impact your team's ability to make progress.

If the relevant team members have availability to meet project demands, your organization has the capacity to support this new project.

The checklist below can be helpful in determining if the environment and timing are right for project execution:

- ❑ Resources are available to support the sustainment and scalability of the solution following initial implementation.
- ❑ Project barriers are identified and can be realistically addressed.
- ❑ Stakeholders are identified and willing to support project execution.
- ❑ Solution owners can provide SME input, review, and feedback throughout project execution.
- ❑ Your organization is willing and able to adopt PM, D, I, & A leading practices.
- ❑ Your leadership is engaged and willing to sponsor this project.

Finally, before formally initiating the project, validate that your implementation team is prepared to do the following:

- Provide contextual content and effort as clinical SMEs (when appropriate).
- Become informed about key stakeholders, unique barriers to implementation, and operational culture.
- Demonstrate willingness to apply innovative practices and optimize current processes.
- Engage throughout the project lifecycle.
- Sustain processes following completion of project.
- If you determine that the project is an appropriate fit, ensure you have gained all necessary approvals and resources to begin.

PM5. Needs and Gaps Assessment

A needs and gaps assessment is useful when determining what steps your team needs to complete to meet your project goals and is composed of:

1. An assessment of the project to determine its current state and the corresponding change management practices that can be leveraged to address gaps.
2. An assessment of your organization to determine what areas your team may require additional support through coordination with an external partnership or where practices may need to be further developed.

Complete IS Template **PM5. Needs and Gaps Assessment**, based on the RE-AIM implementation framework, to determine what can be realistically executed by your internal implementation team and where you will need to leverage external support or resources, allowing you to allocate appropriate time to complete tasks and plan strategies to bridge any gaps.

Figure 6. Bridging the Gap with IS

You have now completed the preliminary due diligence to ensure that your team would like to proceed with the knowledge solution. If you have decided to select the knowledge solution for implementation, you can now begin to formalize project management, beginning with the development of a quad chart.

PM6. Quad Chart Development

A quad chart is an organizational tool that provides a high-level overview of the most pertinent factors influencing a project. It can be used to brief leadership and key stakeholders on project scope, anticipated challenges that may require support, and high-level milestones and timelines. IS Template **PM6. Quad Chart** provides a fillable format for this purpose.

While quad chart development is specific to the DHA, it is a helpful project scoping tool, outlining:

- Project Description
- Goal
- Activities
- Level of Effort
- Benefits
- Risk/Challenges
- Key Stakeholders
- Projected Schedule/Milestones

Use the information identified from Steps PM3-5, project readiness, appropriateness, and needs

and gaps assessment, to develop the quad chart components, particularly the Level of Effort across identified tasks. Since needs will likely vary throughout the life of the project, team members may be matrixed across multiple workflows to increase efficiency.

The example quad chart below outlines the level of detail that should be included when completing a quad chart.

Direct Access to Physical Therapy (DAPT) Case Study: Figure 7. Quad Chart

The quad chart below provides a snapshot of the DAPT project with relevant information in each of the four quadrants to provide a high-level overview of the key project elements, level of effort, benefits and challenges, and major milestones. The highlighted text following each element provides more instruction on how to complete the quadrants.

Project Description: Standardize Direct Access to Physical Therapy (DAPT) to enable rapid access to specialty care for acute musculoskeletal injuries in Active Duty Service Members.

Brief description of the project purpose, including intended audience, guidelines, or high-level outcomes.

Goal: Develop phased implementation approach to execute DAPT across the Military Health System (MHS).

High-level description of project objective.

Key Activities:

1. Conduct **environmental scan** to understand context of the existing DAPT booking initiatives.
2. Develop and conduct **organizational capacity assessment** and **barriers and facilitators assessment**.
3. Develop a high-level **Plan of Action and Milestones (POAM)**.
4. Develop expectations, roles, and responsibilities for **program champions**.
5. Develop **dissemination, implementation, and assessment plans**.
6. Review, refine and develop **pilot materials** as relevant; create **standardized products** to support dissemination and implementation.

Use the Needs and Gaps Assessment (PM5) to identify activities to meet project goals.

Benefits:

- Develops a standardized and sustainable process to implement DAPT by partnering with the Neuromusculoskeletal (NMSK) Clinical Community and administrative stakeholders.
- Phased approach ensures that lessons from pilot activities are incorporated into further scale and spread efforts.
- Incorporates MTF-specific adaptability into the implementation strategy.

Risks/Challenges:

- Lack of existing DAPT policy or requirement.
- Markets and MTFs have varying degrees of resources, staff, and support to implement the DAPT protocol.

High-level overview of the anticipated benefits and risks to implementing the project.

Labor Estimate (Table 1):

Snapshot of projected support across elements. Use the Needs and Gaps Assessment (PM5) to determine the level of effort your internal team will need to complete the identified tasks and build out the projected hours for the allocated timeframe.

Element	Q1 Labor Hours (LH)	Q2 LH	Q3 LH	Q4 LH	FTE Estimates
Project Management	119.5	119.5	119.5	119.5	.25
Dissemination	597.5	597.5	597.5	597.5	1.25
Implementation	717	717	717	717	1.5
Assessment	478	478	478	478	1
Total	1912	1912	1912	1912	**4**

Hours can be estimated by month, quarter, or calendar year.

Project Team: Implementation Science Branch (ISB) and NMSK Clinical Community lead

Key Stakeholders:

- Rehabilitation Clinical Management Team lead
- Tri-Service representatives
- Enterprise Solutions (J5)
- MHS Communications
- Puget Sound (pilot site) champion
- Market/MTF leadership

Include project leads and stakeholders. The needs and gaps assessment may be helpful in identifying potential support offices/entities to fill in internal gaps. This is a preliminary list but may be edited to include additional parties as identified.

Proposed Timeline/Milestones:

- **Q1**: Review and analyze booking protocols and processes.
- **Q2**: Conduct organizational capacity assessment; develop high-level timelines and milestones for standardized DAPT phased implementation. Initiate development of D&I plans.
- **Q3**: Refine D&I plans (tools, materials, and trainings).
- **Q4**: Finalize/transition D&I plans; pilot implementation activities.

Start with the project end date and work backwards. Consider including milestones that your team plans to report to leadership.

Following completion of the quad chart, review your inputs and consider how these inputs will factor into assessment of the project. For additional details on how to plan for assessment early in the project, see Step A1. Plan Project Assessment.

PM7. Executing Project Management

Executing project management involves leveraging the information gained in Steps PM1-6 to successfully organize and transition a project from planning to action. This responsibility falls to the project lead, who outlines and oversees all project activities, coordinates across team members and with leadership/project sponsors, and successfully manages the schedule.

The first step involves identifying key milestones, sub-tasks, and associated timelines to ensure that project goals are met. Since you have already built out a quad chart, you can use those "key activities" as your building blocks by inserting them into your preferred tracker or reporting format and associating a preliminary timeline with each. Tracker and report formats include:

- A3
- Plan of Action and Milestones (POAM)
- Work Breakdown Structure (WBS)

Note that **DHA Enterprise Solutions** provides helpful tools and templates to support project planning (common access card [CAC] enabled).[4]

Once preliminary milestones are established, you can begin to determine which subtasks will support their completion and populate them in the tracker, along with an anticipated timeframe for completion.

At this stage, the following considerations drive project planning:

- an understanding of the team's capacity, strengths/skill sets, and availability (see Step PM4. Project Appropriateness);
- input from your team on their recommended activities and timelines for completion; and
- the inclusion of mitigating strategies based on the results from IS Template **PM5. Needs and Gaps Assessment**.

Incorporating these strategies from the onset is a proactive way to build a strong foundation for project execution.

Organize and meet with your team using a regular meeting cadence and a consistent agenda to establish a routine way to provide updates, maintain accountability, and troubleshoot collectively. Consider incorporating "open" time during your meeting to allow team members to bring up topics/challenges that may not have a specific place on the agenda. During each meeting, review the status of all tasks/sub-tasks within your activity tracker. If challenges arise, problem-solve with the team and relevant project leads/key stakeholders.

Provide regular updates to leadership, project sponsor, and/or project stakeholders, determining cadence as per their preference and project role. It can be helpful to provide updates in a standard format, so that everyone knows what to expect and can review efficiently.

DAPT Case Study Example: Table 2. MHS Standardize Direct Access to Physical Therapy POAM (Abridged)

The abridged plan of action and milestones (POAM) below provides insights into task identification, prioritization, assignment of task responsibility, and scheduling during the DAPT project. This format is available as an IS Template: **PM7. Plan of Action and Milestones**

Table 2. MHS Standardize Direct Access to Physical Therapy POAM (Abridged)*

Task Category	Task #	Tasks	Associated Deliverable	Task Owner(s)
Phase	**1**	**Project Groundwork and Pilot Preparation**		
Milestone	**1.1**	Review and analyze booking protocols and processes.	Environmental Scan	ISB Team Members (TM), Project Leads (PL) & Stakeholder Group (SG)
Task	**1.1.1**	Conduct a background review of literature, policy, documentation, and processes.	Literature Review	TM #1
Task	**1.1.2**	Conduct a scan and analysis of existing data sources.	Data Source Review	TM #2
Milestone	**1.2**	Conduct organizational capacity assessment; develop high-level timelines and milestones for standardized DAPT phased implementation. Initiate development of D&I plans.	Barriers and Facilitators Assessment	TM, PL, SG
Task	**1.2.1**	Conduct tri-service and key stakeholder interviews.	Interview Log	TM #1-3; SG #1-2
Task	**1.2.2**	Develop a current state "as-is" high-level process map.	Process Map	TM #3
Milestone	**1.3**	Refine dissemination and implementation (D&I) plans (tools, materials, and trainings).	Final Pilot D&I Plans	TM, PL, SG
Task	**1.3.1**	Draft pilot dissemination plan.	Draft Dissemination Plan	TM #1
Task	**1.3.2**	Coordinate with external collaborating partners (e.g., MHS Communications) to finalize pilot dissemination plan.	Final Dissemination Plan	PL #2, TM #1
Milestone	**1.4**	Develop expectations, roles, and responsibilities for program champions.	Champion Resource Packet	TM, PL, SG
Task	**1.4.1**	Coordinate with booking personnel to determine future implementation champions.	Coordination Emails	PL #1
Task	**1.4.2**	Create implementation checklist for local champions.	Implementation Checklist	TM #3
Phase	**2**	**Enterprise Scale-Up**		
Milestone	**2.1**	Finalize/transition D&I plans; pilot implementation activities.	Enterprise D&I Plans	TM, PL, SG

*For brevity, this POAM does not include start dates, projected and actual end dates, or completions status. For an unabridged example, access IS Template **PM7. Plan of Action and Milestones**.

PM8. Final Reporting

While formal reporting may not be required until your project is complete (or at all), it is beneficial to begin thinking about reporting at the beginning of the project so you can prepare inputs or drafting as time allows. Even when formal reporting is not required by your leadership, consider creating a comprehensive report, as doing so may add visibility and validity to your project's successes. Final reports also provide your team with an opportunity to reflect on what worked well and opportunities to improve your processes. Lastly, a final report can include a plan of action and recommendations for project sustainment and scale-up.

Reporting does not have to occur only at project conclusion – midpoint, quarterly, etc. Reports may also be appropriate based on project length, scope, and requirements. However, the guidance in this section focuses mostly on the audience and content for a comprehensive final report.

Before drafting the report, consider your audience and their communication preferences (see Step D2. Identify Stakeholders & Messaging for more information on audience profiles).

Some potential audience groups may include your organization's internal leadership, other leaders with oversight, and project stakeholders. Consider whether one overarching report will meet the needs of all these groups, or if it will be necessary to create separate, tailored briefing decks or readouts to accompany the report itself.

The sections listed in the table below are recommended for inclusion in your final report. Consider using the IS Template **PM8. Reporting Template** and embedding relevant materials used within this guidebook (e.g., quad chart, logic model, audience profiles).

Table 3. Implementation Project: Report Sections

Report Section	Description
1. Executive Summary	One- to two-page, high-level summary, describing the problem and solution and presenting the project's purpose and drivers, relevant mandates, process, findings, and way forward.
2. Project Overview	Overview of project and evidence-based rationale for initiating and applying implementation science leading practices.
3. Assessment Methodology	Detailed information on the assessment methodology and approach.
4. Solution Summary	Provide background on the specific knowledge solution that was implemented.
5. Logic Model	Include copy of the Logic Model created in IS Template **A1.1. Logic Model**.
6. Data and Results	Description of assessment findings as measured by assessment metrics. Data should be aggregated wherever possible and should include qualitative and quantitative material gathered from all sources. Present descriptive data such as frequencies and mean/median/mode, as appropriate. Include data visualizations as appropriate. Do not include data that is individually identifiable or otherwise protected.
8. Recommendations	Include actionable recommendations based on your data and results as well as the assessment of your D, I & A processes.
9. Next Steps	Prioritize action items, decision points, and handoffs/transition points and establish the way forward for the project.

Project Management Conclusion

Validating a knowledge solution's readiness and appropriateness before selecting and resourcing an implementation project enables your team to begin the project on the right foot. Though there will likely still be challenges on the road ahead, this section provides the foundational tools and tactics for addressing these barriers and setting your implementation team up for success. Project management leading practices should be incorporated throughout the lifecycle of a project to administer resources appropriately, identify and mitigate risk, and stay on track with the project scope and schedule. Project management should serve as the "through line" throughout the rest of the implementation project.

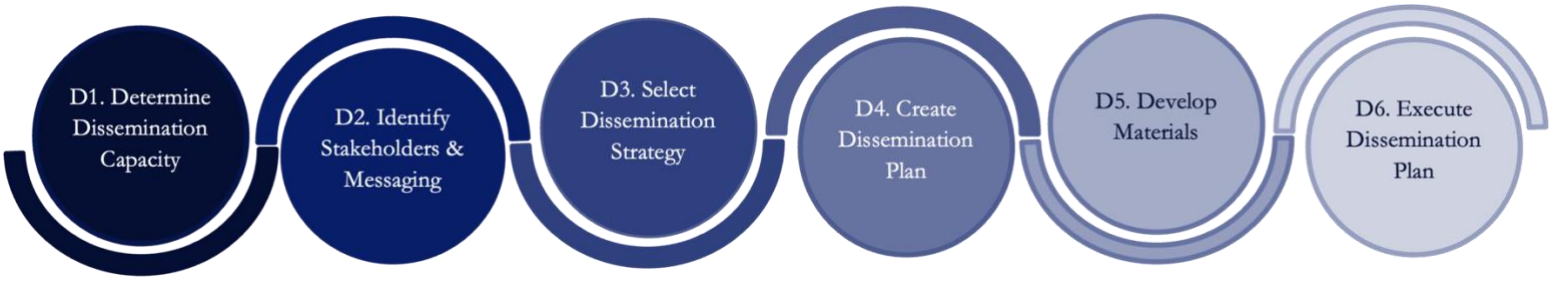
Dissemination

Dissemination is an active approach of distributing knowledge solutions and information to target audiences through selected channels using planned tactics (e.g., newsletters, social media, email campaigns). Organizations often utilize diffusion, the passive, untargeted, unplanned, and uncontrolled spread of new interventions (e.g., publishing a research paper, posting recommendations on a webpage). This passive approach places the burden on end users to search for the solution and risks a lack of awareness and engagement.

Dissemination is a critical component in creating awareness and building engagement amongst stakeholders and end users. A comprehensive dissemination plan achieves this goal through clear, succinct messaging and impactful channels, products, and tactics. This section will walk through the dissemination process, including determining dissemination needs; strategizing, planning, and executing dissemination activities; and assessing dissemination activities.

Figure 8. Overview of Six Dissemination Processes

The figure below outlines the six sequential dissemination process steps. Note that on the full ISB process map, D5. Develop Materials and D6. Executive Dissemination Plan, are interpolated by assessment processes A2. Site Selection and A3. Assess Dissemination. These dissemination processes also occur in parallel to all IS implementation processes, outlined in the subsequent section.



Dissemination Key Terms

1. **Target Audience**
   Individuals or groups intended to know about or use the knowledge solution.
2. **Channel**
   A medium or method through which knowledge solution information is shared (e.g., social media).
3. **Tactic**
   The combination of a channel and a product (i.e., the activity undertaken to communicate the knowledge solution).
4. **Product**
   A created material that communicates information about the knowledge solution (e.g., infographic).

D1. Determine Dissemination Capacity

Begin your dissemination planning process by completing IS Template **D1. Dissemination Capacity Assessment**.

This template helps assess an organization's current practices for communicating information and can illuminate opportunities and challenges. Use the table in this template to assess which communications channels will best reach your audiences.

When completing this template, reach out to contacts within your organization who may have a deeper understanding of your organization's specific capabilities and areas for growth. Additionally, contact clinical SMEs to inquire about any previous dissemination campaigns related to the knowledge solution or target audience. SMEs may be able to provide a unique perspective on the challenges and successes of communicating with this audience.

D2. Identify Stakeholders & Messaging

Target audiences are individuals or groups intended to know about or use the knowledge solution. To ensure these audiences are reached effectively, identify these stakeholder groups and their communication preferences. Audience profiles are a key tool for recording the backgrounds and behaviors of target audiences, focusing on the needs and interests of each group.

Profiles are used to draft key messages, choose dissemination products, and select communication channels. Audience profile criteria may be tailored to project needs, but should always include the following:

- **Knowledge**: what information your audience may need to know before they will act
- **Beliefs**: what ideas your audience may need to believe before they will act
- **Behaviors**: what actions you want your audience to take individually and within teams
- **Challenges**: what barriers may disrupt your audience from acting
- **Communication channel preference:** what communication methods are most likely to be successful with your audience

Use IS Template **D2. Audience Profile** to gather this information.

Steps for Completing an Audience Profile

1. **Identify target audiences**. List everyone who needs to be aware of the knowledge solution, and consolidate them into groups

according to the information, messaging, and materials they require. You may want to reach several different target audience groups.

The below list is non-exhaustive, but provides examples:

- All Beneficiaries
- All Active-Duty Service Members
- Vulnerable Populations
- Providers
- Nurses
- Pharmacists
- Administrative Staff
- MTF Leadership
- Researchers

Resources:

- Bureau of Labor Statistics Reports[5]
- Centers for Disease Control and Prevention Health Topics[6]
- Demographic information on the military community:
  - Military OneSource Demographic Profile of the Military Community[7]
  - Defense Manpower Data Center Reports[8]

2. **Make a first draft** based on background knowledge and information you can find online (e.g., professional or nonprofit health organizations, other communications efforts by public health initiatives or large health systems).
3. **Validate and/or inform profiles** by conducting informational interviews with target audiences or SMEs.

After completing audience profiles, use the identified criteria to develop impactful, informative key messages for each audience group. Make sure to incorporate the knowledge, beliefs, and behaviors listed in the profile and address any challenges you have identified.

DAPT Case Study: Figure 9. Appointing Personnel Audience Profile

The following graphic provides an example of the crucial information that all audience profiles must contain—what the audience should know, believe, and do, as well as potential communication barriers and the channel preferences of the audience. In this case, the audience is appointing personnel, the administrative staff who schedule physical therapy appointments.

Audience Description: Appointing personnel are responsible for booking direct care appointments for beneficiaries. These non-medical personnel, who typically operate out of centralized call centers, use booking protocols to ensure that beneficiaries are making their medical appointments at an appropriate facility with an appropriate care team.

Objectives

- **Knowledge:** How to use the DAPT Booking Protocol; which patients should be offered DAPT; how to offer eligible patients DAPT.
- **Belief:** The DAPT Booking Protocol has proper approvals; DAPT is appropriate for potential patients.
- **Behavior:** Properly use the DAPT Booking Protocol.

Challenges

- Using the DAPT Booking Protocol is a change in longstanding practice for specialty referrals.
- Differing capacity and capabilities across facilities may be a cause for concern.
- Patients may be unfamiliar with DAPT.
- Non-medical screeners cannot triage and will only follow protocol as written.

Communication Channel Preferences

- Integrated Referral Management and Appointing Center (IRMAC)
- Leadership
- Trainings
- Briefings

D3. Select Dissemination Strategy

Selecting a dissemination strategy involves identifying and choosing communication media, formats, and channels that are best suited to meet the needs of your project. Completing this step is the final piece in laying the groundwork for developing a formal dissemination plan.

Review the dissemination capacity assessment and audience profiles to help determine which of your organization's communication channels are most suitable. Throughout this step, conduct periodic informational interviews if you need to gain a more comprehensive understanding of your audience's preferred communication media and channels.

During this process, consider your implementation team's resources, timeline, and which dissemination products will provide the most value for the level of effort, especially if managing implementation activities (e.g., trainings) simultaneously. Finally, be sure that your proposed dissemination strategy complements your proposed implementation strategy. Consider opportunities for concurrent product development, review, and coordination across both processes.

DAPT Case Study: Selecting Channels

DAPT was aimed at a target population of Active-Duty Service Members, nearly half of whom are 25 years old or younger.[9] As such, social media posts and graphics were prioritized as communication channels over more traditional channels, such as print or electronic newsletters.

Table 4. Dissemination Product Selection

Product	Description/Purpose
Infographic	A visual image used to represent information or data. It can be used to summarize the main points from a guideline or policy.
Fact Sheet	One or two pages summarizing the most important information about a particular subject, guideline, or policy.
Frequently Asked Questions	A list of questions and answers relating to a particular subject and focused on a specific audience's perspective.
Article	A piece of writing included with others in a newspaper, magazine, or other print or online publication.
Quick Reference Guide	A one- or two-page set of condensed instructions on how to apply a guideline or policy. They can be highly detailed or very simple, depending on what's needed.
Briefing Deck	A presentation used to update or inform on a specific subject.
Newsletter	A periodically released publication focused within a general topic area and sent to a specific audience.
Email Template	A draft email with placeholders that can be edited for specific audiences.

D4. Create Dissemination Plan

After selecting the optimal dissemination strategies for your project, formalize your ideas by creating a dissemination plan. This plan consolidates the work done in the previous steps and should include all relevant details to execute dissemination of your solution, including (but not limited to): channels, products, tactics, key messages, timelines, and dissemination partners. A crucial first step in completing this plan is to confer with appropriate stakeholders to ensure all key viewpoints are incorporated. Just as you engaged with experts on your solution's subject matter to develop content for the products, engage with dissemination SMEs (when available) to develop a feasible plan to share these products. Dissemination SMEs may be found in an agency-wide communications body (e.g., MHS Communications), local Public Affairs Offices (PAO) or military hospital/clinic-level champions, or any intra-organizational communications specialists. Consider collaborating with other organizations within your agency who operate in similar areas. Before beginning formal development of materials, seek necessary approvals from your leadership on your dissemination plan to ensure that efforts are not wasted. Additionally, gain necessary approvals from any other leaders or entities who provide clinical, administrative, or legal oversight to your organization. Since public-facing government documents must undergo approval from PAO before being disseminated, ensure PAO approves your plan before all materials are created.

DAPT Case Study: Table 5. Abridged Dissemination Planning Matrix
The table shown below is a common organizational tool included in dissemination plans. Each DAPT target audience is listed alongside the optimal dissemination channels and the products identified. The information it contains collates already identified information from D2. Messaging and D3. Dissemination Strategy.

Audience	Channels	Products
Appointing Personnel	IRMAC; Clinic Chiefs; Trainings; Briefings	▪ Briefing Deck ▪ Fact Sheet/FAQs ▪ Email Template
Primary/Urgent/Emergency Care Providers	Leadership [Clinical Community Advisory Council (CCAC), Relevant CCs/CMTs, Chief Medical Officers (CMO)/ Chief Nursing Officers (CNO)] Trainings; Briefings; Peers; SharePoint; Base Paper; Email	▪ Briefing Deck ▪ Fact Sheet/FAQs ▪ Email Template ▪ Article
Physical Therapists/ Physical Therapist Techs	Leadership (CCAC, NMSK CC/Rehab CMT); Peers; Email; Briefings; SharePoint; Product Line Leaders (PLLs)	▪ Email Template ▪ Briefing Deck
Leadership	Briefings; SharePoint	▪ Briefing Deck
Active Duty Service Members	PAO; Social Media; Base Papers; Unit Formations	▪ Infographics/Poster ▪ Email Template ▪ Health.mil Article

D5. Develop Materials

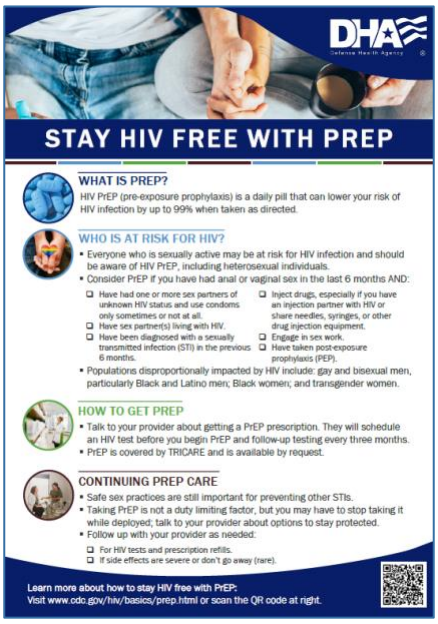
After the dissemination plan has been formalized and approved, development of materials can begin. The length of the initial drafting phase will depend on the types of materials and the availability and expertise of your team.

Guidance for Developing Materials

- **Incorporate key messages into your products:** create each product with a clear purpose and audience in mind, to ensure that the end product is focused.
- **Think about size requirements, format, and level of detail** when developing products for specific channels.
- **Follow design best practices:**
  - Follow brand standards: ensure that all developed products follow DHA's Brand Standards[11] regarding fonts, style, color schemes, logos and seals, images, and terminology. Products should adhere to the appropriate brand, DHA, MHS, or TRICARE. Generally, the DHA brand is used to communicate with DHA staff, including staff at military hospitals and clinics, the MHS brand is used to communicate health and lifestyle information to beneficiaries, and the TRICARE brand is used to communicate about the health benefit plan and coverage.
  - Leave "white space:" allow the elements of your design "breathing room," particularly for those products that may include denser text or graphics.
  - Minimize text: strive for succinctness; keep it short and simple.
  - Include a call to action: leave your audience with an awareness of next steps they can take to implement the knowledge solution or learn more.
- **Direct end users to more resources:** Provide links or quick read (QR) codes (when appropriate) to direct end users to additional resources, such as a dedicated CAC-enabled SharePoint site or public .gov or .mil sites.
- **Draft products using principles of universal design and check for accessibility:** A universally designed product is "usable by all people, to the greatest extent possible, without the need for adaptation or specialized design."[8] Universal design supports compliance with Section 508 of the Rehabilitation Act of 1973, which ensures that individuals with disabilities have equal access to government materials and interfaces hosted on information and communications technology. To ensure that all public-facing products comply with this act, use application-specific checklists provided by the DHA Section 508 Program Management Office[12].
- **Visual information and product templates:**
  - The Defense Visual Information Distribution Service (DVIDs)[13] provides news, images, audio, video, and publications from military operations around the world.
  - Free-to-use, web-hosted graphic design tools, such as Canva® and Piktochart®, offer template products and royalty-free images.

The following figures are examples of communications products that ISB has created for a variety of projects, ranging from HIV pre-exposure prophylaxis (PrEP) to colorectal cancer (CRC) screening awareness, over the past several years. Each infographic or fact sheet includes callout text indicating the dissemination leading practices that were applied in its development.

Figure 10. HIV PrEP Fact Sheet



Leading Practices Depicted:

Key message is displayed prominently.

Photos, graphics, and **icons** visually engage readers.

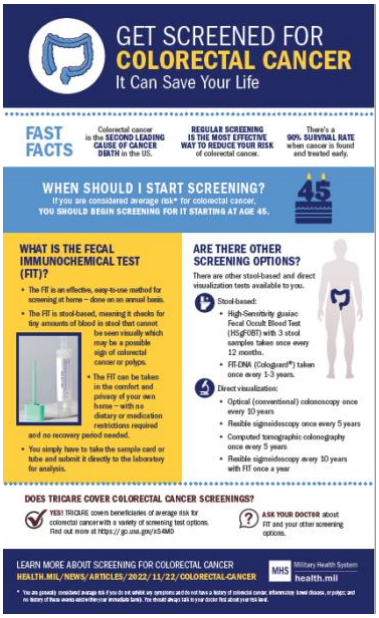
White space helps to emphasize headings.

Information is presented in **bullets** to increase readability.

A **call to action** directs readers to additional information and services.

Links and **QR Codes** offer additional resources.

Figure 11. CRC Poster



Focus Groups

Once your team has completed the drafting phase, consider conducting focus groups with the target audiences for each product (or set of products).

Focus groups enable you to:

- hear from end users about potential dissemination pathways;
- determine which products are most effective and user-friendly;
- gather feedback from stakeholders, SMEs, and end users that can be used to refine and improve products; and
- gain insights to improve effectiveness of your products prior to dissemination.

Having the opportunity to incorporate feedback early on will save you resources and headaches on the backend.

Use IS Template **D5. Focus Group Script** as a framework when creating questions for your focus group participants. This template includes further tips for facilitating a successful focus group. Focus groups may also be a useful tool for other consensus or collaborative driven project management, implementation, or assessment activities.

While formal focus groups are the most beneficial, informally gaining feedback from target audiences still helps improve products. Reaching out to a few members of an audience group or knowledgeable SMEs via email or during a quick meeting can be a less intensive alternative.

Regardless of your chosen format, the following tips will help you receive helpful feedback:

1. **Ask Open-Ended Questions**. Asking a question that could easily be responded to with either a yes or a no does not provide as much helpful information or qualitative data. Rephrase the question so that responses are more descriptive. For example, instead of asking "Did everyone like the document you reviewed?" ask, "What did you like or what resonated while you reviewed the document?"
2. **Be Specific**. Vague questions will solicit vague answers. To collect more robust qualitative data, ask specific questions that really hone responses. For example, instead of

asking "what does everyone think?" ask, "what were some ideas you had about the graphics on page two of your document?" The more specific the question, the more specific feedback you will receive.

3. **Be Direct**. When you are not receiving feedback on a question you asked, consider directing the question to one or multiple people. For example, you could ask "how would providers use this in practice?" if you have a group with multiple occupational backgrounds. Often, participants will be more inclined to respond if they feel a question is directed at them.

Following any focus group, make sure to review the notes to identify any trends or outlier comments.

D6. Execute Dissemination Plan

Once all products have been approved by relevant stakeholders and SMEs, your team can begin executing the dissemination plan. While execution may look different for each project, the following are examples of some activities that may take place:

- Seeking final approvals from necessary entities on all dissemination products.
- Formal sharing of products with relevant dissemination partners (e.g., MHS Communications, local Public Affairs Offices, etc.).
- Periodic check-ins with those dissemination partners to verify deadlines are being met and to obtain performance metrics (as available).
- If dissemination is being conducted by champions at the local level:
  - Periodic check-ins with dissemination champions to ask where support is needed, to assess effectiveness of materials, to provide updates to materials, etc.
- If your organization is the primary disseminator on your own channels:
  - Post materials according to dissemination timeline.
  - Collect performance metrics (as able).

An important component for executing a successful and strategic dissemination plan is embedding assessment methods. Assessment metrics help measure if your target audience is being reached, if the messaging is having impact, and if awareness of your knowledge solution is increasing because of your dissemination activities.

To learn more about collecting data on the performance of your dissemination process (including tracking and analyzing social media and website data), see Step A3. Assess Dissemination.

Throughout dissemination plan execution, continue to verify that all dissemination products align with implementation plans and products. While active execution of a dissemination plan may cease at the end of the dissemination timeline (e.g., after all materials have been posted or shared on social media), dissemination of a knowledge solution is never truly "finished." Products must always be maintained, updated, or retired to align with current clinical standards and leading practices.

One leading practice to consider is the development of a lifecycle management tool, which includes the locations for products that have been created for a project and notes when those products were last updated. This lifecycle management document can also include prompts for updating products, such as the release of a new Clinical Practice Guideline on the subject matter.

The lifecycle management tool should be owned by a person with the knowledge and ability to track and incorporate these updates as needed.

Phases of the Content Management Lifecyle include:

1. Plan: Identify dissemination capacity, engage stakeholders, select key messages, and draft a dissemination plan (Steps D1-D4).
2. Draft & Review: Draft, submit, and receive approvals for materials (Step D5).
3. Disseminate: Execute the dissemination plan (Step D6).
4. Assess & Strategize: Assess dissemination (Step A3).
5. Maintain & Archive: Ongoing sustainment (Step A7)

Figure 12: Content Management Lifecycle

Dissemination Conclusion

A successful dissemination effort is critical for ensuring target audiences are both aware of the knowledge solution and primed to implement it into their practice. While working through the next section, implementation, remember that dissemination is often a concurrent process and should be considered while determining implementation strategies and timelines.

Implementation

Implementation is the use of strategies to adopt and integrate knowledge solutions within specific systems.[14] Implementation requires a deep understanding of the environment in which the solution will be implemented and the application of strategies to mitigate potential barriers. By creating an implementation plan that weaves together proven implementation strategies, thoughtful and systematic prioritization, and evidence and policy support, your team will be able to lay the foundations for successful adoption of your knowledge solution.

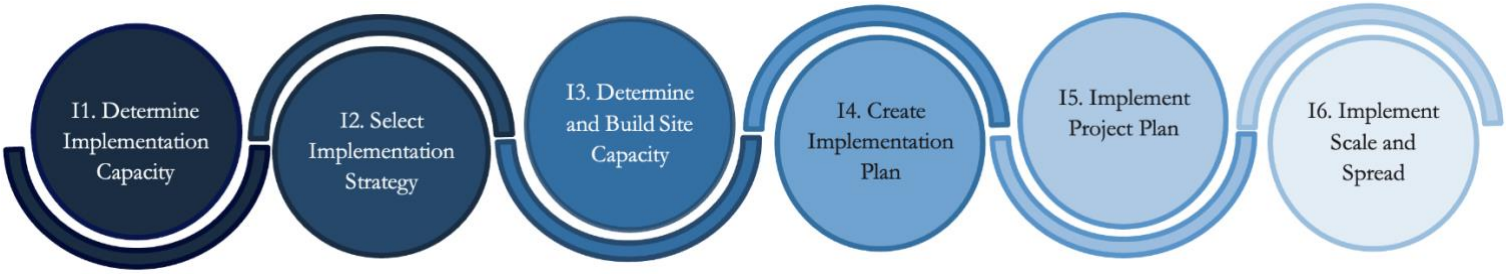
To ensure that your strategies and approach are sound, apply a phased implementation approach, first implementing a project pilot and using pilot outcomes to troubleshoot any challenges that emerge. Use the lessons learned during the piloting phase to prepare a knowledge solution for spread and scale across the enterprise. Below, Steps I1-4 will help you plan for implementation of your knowledge solution and Steps I5-6 will provide guidance on how to execute and scale and spread.

Implementation Key Terms

1. **Pilot**
   Initial small-scale execution of a project at a site that provides context and recommendations for scale at additional sites.
2. **Capacity**
   Systems, activities, and resources that are necessary for an organization or agency to successfully adopt and sustain knowledge solutions.
3. **Process Map**
   A workflow diagram which provides an overview of a process and its components; essential for identifying key relationships, decision points, and workflow steps and gaps.

Figure 13. Overview of Six Implementation Processes

The figure below outlines the six sequential implementation process steps. Note that on the full ISB process map, I4. Create Implementation Plan and I5. Implement Project Plan are interpolated by assessment processes A2. Site Selection and A4. Assess Implementation. These implementation processes also occur in parallel to all IS dissemination processes.



I1. Determine Implementation Capacity

Understanding the current and future capacity for the knowledge solution will help you mitigate potential pitfalls, increase the likelihood of your project's success, and reinforce the adoption of your knowledge solution amongst your target audience. The following are leading practices you can employ to determine implementation capacity at an organizational level:

Completing a Capacity Assessment

Determining if an organization can adopt and support change is essential to identify capacity, implementation gaps, and institutional dynamics. Implementation without a capacity assessment often leads to suboptimal results. A capacity assessment may also complement PM5. Needs and Gaps Assessment.

Using the DOTMLPF-P strategic framework is helpful to analyze Doctrine, Organization, Training, Materiel, Leadership, Personnel, Facilities, and Policy supports or gaps.[15]

Figure 14. DOTMLPF-P Strategic Framework

Where gaps exist, coordinate with appropriate leaders and stakeholders to address and overcome deficiencies as you design your implementation plan.

Capacity assessments often include transparent discussion and analysis of sensitive issues such as workload, mission, and existing gaps. As such, consider engaging in these assessments in small groups or with champions/leaders, emphasizing the rationale for the analysis and the need for change (see I3: Determine and Build Site Capacity).

Figure 15. Defining DOTMLPF-P

Doctrine
How medical care is provided within joint operational environments (pre-deployment, deployment, and post-deployment) and non-operational (peacetime) environments.
Key Question: Does current doctrine support or contradict desired implementation change, and how?
Organization
How military medical care is organized and delivered according to Roles of Care (1-4 and Enroute), and unit structure.
Key Question: Are units currently organized to support the desired implementation change?
Training
How military medical care prepares its members to provide medical care (including basic/advanced, enlisted/officer, unit/joint, brick and mortar/virtual).
Key Question: Do current knowledge, skills, and abilities (KSA), individual critical task lists (ICTL), and training platforms presently support desired implementation change?
Materiel
The equipment and systems needed by forces to provide medical care effectively.
Key Question: Do units currently have adequate durable/consumable materiel to support desired implementation change?
Leadership
Medical leaders range from squad leader to 4-Star General/ Admiral and are essential to drive change at all levels.
Key Question: Which leaders within which organizations must be included within implementation planning?
Personnel
The availability of qualified medical personnel for peacetime, wartime, and contingency operations.
Key Question: Do current KSAs, ICTLs, and Scopes of Practice support the desired implementation change?
Facilities
Infrastructure including property, medical installations, and medical facilities which support medical care delivery within the MHS. Facilities include hospitals, clinics, laboratories, and logistics warehouses.
Key Question: Do current facilities and maintenance support the desired implementation change?
Policy
Medically related multi-service regulations, procedural and administrative instructions, interim procedural and policy memorandums, technical manuals, and command directives/Operations Orders (OPORDS). Medical policy also includes command endorsed of clinical practice guidelines and clinical recommendations.
Key Question: Does current policy support the desired implementation change or are there modifications and/or new policy required?

Process Mapping

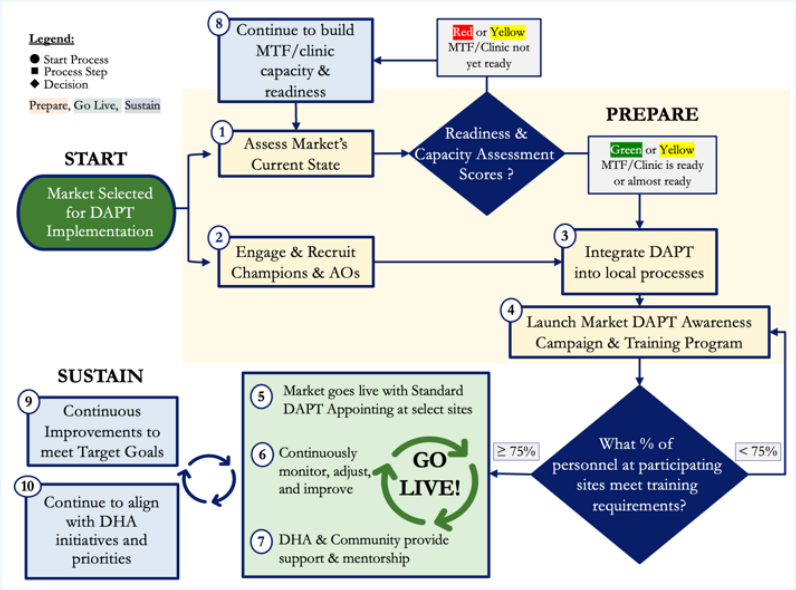
A process map diagrams a workflow, allowing the team to clearly understand a process and its components. Process maps may take various forms, such as flowcharts, workflow diagrams, or swim lane maps. A process map is essential to identifying key relationships, task owners, decision points, workflow steps, expected timelines, and gaps within a workflow. Most process maps start at a macro level and then provide more details as the understanding becomes more nuanced. Creating a process map involves careful analysis of sequential and parallel relationships, decision points, and interactions within the "as-is" process versus the proposed "ideal" process, highlighting areas which require action, modification, or re-engineering to implement proposed changes. [16, 17]

DAPT Case Study: Process Mapping

Early process mapping during DAPT revealed that implementation efforts should primarily focus on administrative rather than clinical change. This awareness of key administrative gaps led to the identification and development of new appointing processes, which were paramount to project success.

Process maps were refined and validated with a variety of clinical and administrative partners, including tri-service representatives, which brought a deeper understanding into how to implement the needed change.

Figure 16. DAPT Appointing Market Implementation Process Map



Conducting a Barriers and Facilitators Assessment (BFA)

Identification of barriers and facilitators in IS Template **I1. Barriers and Facilitators Assessment**. allows for a more complete implementation picture to target implementation adoption and sustainment strategies. The BFA is a tool used to determine contextual determinants of dissemination and implementation feasibility and identify strategies to support adoption and sustainment.

The BFA, which is typically completed as a facilitated discussion or as a questionnaire, includes questions which examine current practice, leadership culture, Implementation Team Coordination, and Monitoring/Evaluation. It is important that the BFA is conducted by a group of multidisciplinary personnel working at multiple levels within an organization, prioritized, and completed prior to or concurrent with implementation planning. [18, 19]

DAPT Case Study: Example Barrier and Facilitator

Barrier: A lack of standardized process for identifying DAPT candidates (e.g., sites using a wide variety of booking protocols/processes).

Facilitator: Many MTFs were already engaging in some form of DAPT.

I2. Select Implementation Strategy

Implementation strategies are approaches or techniques used to help increase adoption, integration, and sustainment of the knowledge solution being implemented. These strategies aim to improve outcomes and are often described as the "how to" components of an implementation project. Identifying and applying the right combination of strategies to facilitate adoption and sustainment may prove challenging without first understanding the context in which the knowledge solution will be implemented. To maximize the potential of these implementation efforts, it is critical that you select strategies that are tailored to fit the contextual needs of your project.[20, 21, 22]

Selecting the Right Implementation Framework

While there are several theoretical approaches used in implementation science to understand and/or explain what influences implementation outcomes[23, 24, 25], three of the most prominent are:

1. RE-AIM (Reach, Effectiveness, Adoption, Implementation, and Maintenance) + PRISM (Practical, Robust Implementation and Sustainability Model)
2. ADKAR (Awareness, Desire, Knowledge, Ability, and Reinforcement)
3. PDSA (Plan, Do, Study, Act)

While there is no exact formula for choosing a theoretical approach, select a framework based on the project needs, aims, and external and internal contexts (i.e., organizational culture, policy, governance, stakeholders, timelines, expectations, and attitudes towards change management).[26] Although there are numerous conceptual frameworks to choose from, do not feel overwhelmed or get caught up on how to select the best framework for your implementation project. Instead, narrow down the conceptual frameworks to the one(s) that interest you the most and you feel will help you understand the underlying processes impacting your implementation project. Consider connecting with mentors and peers about their experiences with similar efforts.

Figure 17, on the following page, contains considerations for selecting an appropriate and practical theoretical approach for your implementation project.

Figure 17. Common Frameworks for Dissemination, Implementation, and Assessment

ADKAR: Awareness, Desire, Knowledge, Ability, and Reinforcement [27]

A **change management model** which uses five outcomes on a spectrum of enablement (learning about the change) to engagement (applying and sustaining change).

Use this model when…

- Participation will define project success.
- A forthcoming go-live requires global end-user engagement.

PDSA: Plan, Do, Study, and Act [28]

An **improvement model** or rapid **test cycle** for change including planning, executing, observing, and incorporating lessons learned to improve a program or intervention before spreading and scaling.

Use this model when…

- A project requires piloting, scaling, and/or spreading.
- To establish feedback loops for end-users or champions.
- To build change into an existing structure or organization.
- To determine if an implemented intervention is generalizable to other settings.

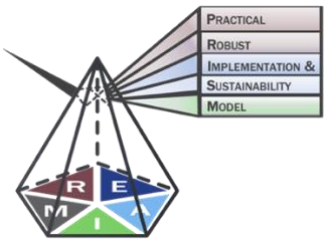
RE-AIM: Reach, Effectiveness, Adoption, Implementation, and Maintenance [29]

This **planning and evaluation framework** measures impact as a function of five outcomes: participation, use outcomes, setting and environment for adopting the intervention, quality of the program or intervention delivery to intended end-users, and sustainability.

Use the model when…

- Assessing interventions and programs.
- Developing project plans.
- For use in planning, mid-rollout adjustments, evaluation, and reporting.

PRISM: Practical, Robust Implementation and Sustainability Model [30]



PRISM models and connects multi-level internal and external contextual predictors to the RE-AIM framework's outcomes.

Use this model when…

- Performing an environmental scan
- To assess multilevel contextual factors

DAPT Case Study: Selecting the PDSA Framework

The DAPT project aimed to standardize materials, tools, and processes, pilot on a small scale prior to a larger spread/scale initiative, and build change into existing organizational structures (e.g., many clinics already offered some form of DAPT). The PDSA framework supported these aims by providing cyclical feedback that allowed the implementation team to make modifications to materials and plans prior to broader implementation.

Linking Contextual Factors to Implementation Strategies

Now that you have explored the value of applying an implementation framework to your project, it is important to identify, select, and prioritize your implementation strategies. Effective implementation of the knowledge solution involves designing strategies that address the contextual factors that will best support adoption, integration, and sustainment of the intended change.

To assist with strategy selection, the Expert Recommendation for Implementation Change (ERIC) collection consists of over 70 implementation strategies grouped based on nine central themes (reference Table 6 below).[31]

In addition to applying the selected theoretical approach, complete a root cause analysis (such as an Ishikawa Diagram or the 5 Whys) to uncover underlying cause(s), identify solutions, and implement measures to change practice.

De-implementation

Effective implementation may also require development of de-implementation strategies. De-implementation involves reducing or stopping the use or delivery of services or practices that are ineffective, unproven, harmful, overused, inappropriate, or will be replaced by the new knowledge solution being implemented. Depending on the scope of your implementation project, de-implementation strategies may need to be scoped at the patient, practitioner, or system level. While similar to implementation strategies, de-implementation strategies must overcome deeply rooted mindsets and routine practices, which can prove particularly challenging. De-implementation takes conscious effort, allowing you to learn from a previous practice while making room for the new.

For a list of resources to aid in the development of informing your implementation and de-implementation strategy, see Addendum I: Further Reading.

DAPT Case Study: De-implementation

Physical therapy front desk clerks scheduled the majority of physical therapy appointments at the time of implementation. The project chose to de-implement existing appointing processes while building an appointing pathway through centralized booking. The decision limited project risk associated with turnover, resource limitations, and competing demands on front desk clerks. This required extensive administrative champion-building and collaboration; centralized booking training piloting, modification, and execution; the development of enterprise and local policy to support the change; and an active dissemination campaign. De-implementation may require the maintenance of select existing processes with the addition of newer, streamlined processes. It may not be a simple removal and replacement.

Table 6. Examples of Implementation Strategies Across Nine Thematic Categories (ERIC)[31]

Thematic Category	Implementation Strategies
Use evaluative and iterative strategies	Conduct local needs assessment, conduct readiness assessment, audit & provide feedback, conduct rapid cycle PDSAs, stage implementation scale-up; asses and redesign workflow
Provide interactive assistance	Facilitation, local technical assistance, clinical supervision
Adapt and tailor to context	Tailor strategies, promote adaptability, use data experts, leverage MHS electronic health record (EHR) system
Develop stakeholder interrelationships	Identify and prepare champions, obtain formal commitments, identify early adopters
Train and educate stakeholders	Develop educational materials, offer ongoing and dynamic trainings, provide consultation; use train-the trainer strategies; site visits
Support clinicians	Clinician reminders, create new clinical teams, revised professional roles, relay clinical data
Engage beneficiaries	Involve consumers and family members, use grassroots media channels, activate participants
Project budget and use financial strategies	Access new funding, fund and contract for the knowledge solution, estimate cost of implementation tactics
Change infrastructure	Mandate change, change record systems, change physical structures/equipment, change credentialing

I3. Determine & Build Site Capacity

Determining and building site capacity continues the steps outlined in Step I1. Determine Implementation Capacity and Step I2. Select Implementation Strategy. The goal of this stage is to determine the minimum requirements and timeline to adopt change at a more granular level.[32]

Determining site capacity includes an assessment of factors such as:

- adequacy of clinical and administrative staffing and facilities
- health information technology
- training
- organizational coordination
- policy
- workload/patient flow
- local SMEs/champions
- other factors such as organizational culture

DAPT Case Study: Site Capacity

Information on site capacity was collected in several ways:

1. a Request for Information (RFI)
2. a pre-implementation site visit
3. discussions with local champions and stakeholders.

The information provided an understanding of the optimal timing for the pilot implementation (e.g., order of military hospital or clinic implementation within a market), and what special and unique considerations may prohibit or promote change within each site.

After completing a capacity assessment (see I1: Determine Implementation Capacity), your team likely has a good sense of whether the organization has the capacity to accommodate the change.

Now, begin the work of addressing and mitigating the gaps that you have identified, including obtaining equipment, staffing, training, organizational coordination, and policy required to initiate, maintain, and sustain implementation over time.[33] A crucial part of this work is identifying, managing, and engaging stakeholders.

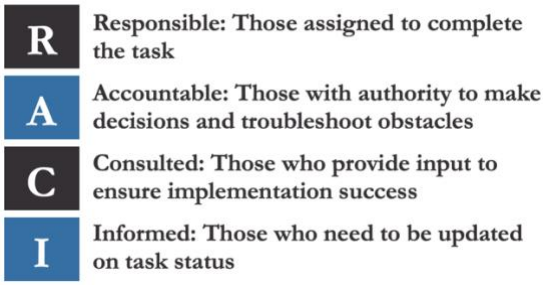
Identify Stakeholders across Roles

- **Project sponsor:** Provide governance and direction; advocate for project goals and promote change.
- **Military leadership/Tri-service point of contact (POC):** Involve early within implementation planning and when planning site visits; include leadership and line unit points of contact.
- **Subject Matter Experts (SMEs)**: This multidisciplinary workgroup contributes to the development of the project. Refer to your process map to ensure representation of all whom the process touches.
- **Champions**: Identify and prepare site champions to act as change agents and generate support for the knowledge solution; encourage, coach, and mentor on-site; bridge communication gaps; identify mitigating solutions and mobilize resources to facilitate implementation. Develop a routine meeting cadence which gathers champions together to discuss challenges and learn from one another.

Manage and Engage Stakeholder Groups

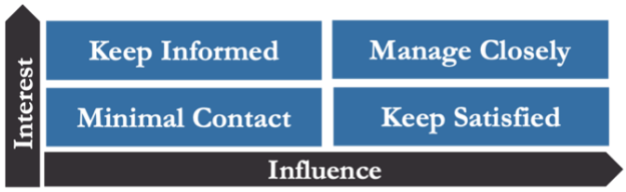
Create a stakeholder engagement plan, using a RACI to manage the type and level of engagement needed from each identified stakeholder. To formalize roles and responsibilities and assign task owners, use IS Template **I3. RACI and Roles & Responsibilities**.

Figure 18. RACI Roles & Responsibilities



Establish an ongoing engagement plan, using a stakeholder map/matrix to organize stakeholders by level of interest and influence.

Figure 19. Stakeholder Map



I4. Create Implementation Plan

DAPT Case Study: Scaling an Implementation Plan

Prior to scaling and spreading DAPT, ISB adjusted strategies and revised materials to account for site feedback and lessons learned during the pilot. A scaled implementation plan was created to outline sub-steps and was validated through regular meetings with stakeholders and site champions to facilitate greater understanding and coordination prior to enterprise-wide implementation.

Implementation planning is the crucial work done in advance of implementation or "go live" to maximize intervention acceptance and minimize threats to the project. Developing a successful pre-implementation plan first requires solidifying the desired end state, outcomes, and measures of an implementation project. [34, 35]

The implementation plan should map out specific action steps and sub-steps and the individuals responsible for executing strategies and monitoring progress against identified

goals.[36] It should be considered an "evergreen" document as the work leading up to and through implementation is a dynamic and iterative process requiring focus and agility.

Mobilizing Your Implementation Team

Engage champions and stakeholders early to mobilize their expertise, influence, and creativity to actively contribute to planning for implementation. Apply the results of stakeholder mapping to keep the implementation moving forward, considering project members' roles and responsibilities (see Step I3. Determine and Build Site Capacity: Manage and Engage Stakeholder Groups).

Monitor and Evaluate Implementation Efforts

After selecting and prioritizing strategies, identify and plan for the outcome measures at the levels of implementation, individual or patient, and service or system that can be assessed to determine whether the implementation of your project has been successful. For instance, leveraging the electronic health record (EHR) may be an essential mechanism for monitoring and should be considered when developing the implementation plan.

For more information on assessing implementation by measuring performance and outcomes, see Step A4. Assess Implementation.

DAPT Case Study: Determining When to "Go-Live"

When determining when to "go live" with DAPT implementation, each site utilized a checklist outlining preparatory activities. This process included evaluating and monitoring current status – for example, waiting to go live until 75% of relevant staff (appointing clerks, booking agents) had received the training. Embedding a performance metric into the implementation plan ensures that there is a demonstrable, concrete way to measure readiness.

Formalize Your Implementation Plan

Develop an implementation planning checklist or worksheet to guide the implementation team when documenting local site decisions, action items, time frames, and responsible parties. This document can be crucial to make sure action items and their follow-through are documented for both pre-/post- implementation, including steps and sub-steps. This worksheet can also outline implementation sites, phases, and identify demand signals.

Identify and allocate resources to establish an easily accessible, centralized repository for the implementation team. Effective implementation teams should consult regularly to review, provide feedback, and make adaptations to your customized implementation plan. Successful and lasting implementation does not happen by accident. It requires a well-thought-out plan based on a shared understanding of how the implementation project will benefit the organization, patient, and providers.

I5. Implement Project Plan

At this stage, all preparatory implementation work is put into action. The steps outlined in the implementation plan are systematically executed and tracked by leaders, champions, and end users, who apply the plans and materials with support as needed. Dissemination activities, which have been prepared in tandem with implementation activities, are executed, providing the target audience with the resources they need to be aware of the knowledge solution.

To perform a "final check" on viability, it may be helpful to complete a tabletop exercise to walk

through each step of the knowledge solution implementation with SMEs and stakeholders.

DAPT Case Study: "Go-Live" Preflight

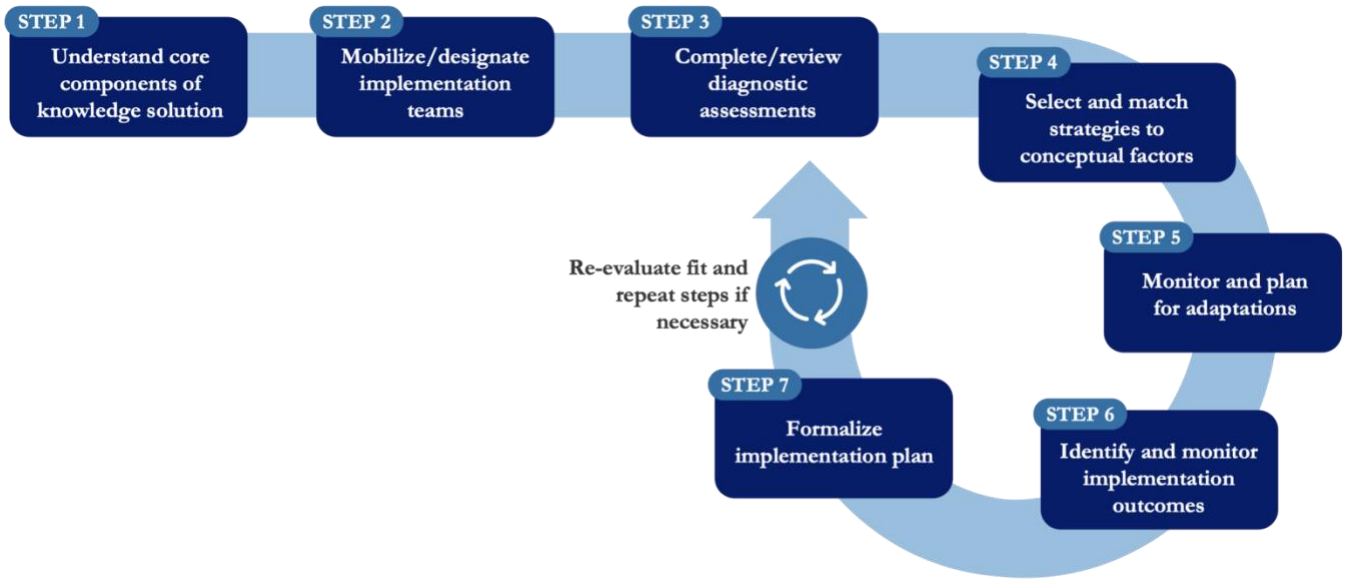
Prior to the DAPT test scale-up, ISB met with local leadership and a multidisciplinary group of administrative and clinical personnel to walk through proposed changes prior to "go-live" at the local site. The feedback from this meeting was invaluable and brought about new ideas and strategies that eased implementation by facilitating a deeper understanding of the change package resulting in increased stakeholder engagement.

Typically, the project "goes live" within a specified set of systematically selected locations which have the capacity to successfully implement the desired change. Ideally, initial implementation is incremental, piloting the resources, steps, and supports. This phased implementation allows for observation of pitfalls, challenges, and successes, with the opportunity to modify implementation plans and materials prior to wider spread and scale. Applying the PDSA model to phased implementation provides structure and opportunities to learn and modify accordingly.

A phased implementation plan may vary significantly based on scope and requirements. The plan may initiate a pilot within intra-hospital clinics, all the way through to a selection of small, stand-alone, or large Defense Health Networks. The next step will provide further details on phased implementation.

Figure 20. Project Plan Implementation Cycle

Adapted from [35]



I6. Implement Scale & Spread

You have now determined the individual, cultural, and organizational readiness and capability to change. You have also built a strong understanding of the supporting infrastructure and processes ahead of scaling and spreading the solution to more sites.

Prioritize and phase scale and spread according to clinical need, organizational capacity, and strategic objectives, according to the OPTEMPO (operations tempo) timeline, while adjusting to military hospital or clinic size and mission.

Setup

The process to scale-up a project should progress in a phased approach toward full scale

implementation (i.e., setup, develop scalable knowledge solution, test of scale-up, scale-up).

The setup phase establishes the foundation for introduction and testing of the implementation project that will be taken to full scale. Initial testing can occur at a single location if the location reflects the broad range of contexts applicable for scale-up.

Test Scale-Up

Ongoing evaluation and revisions to the scalable knowledge solution may occur as the project matures and is systematically spread to test its resolve in a variety of settings using the PDSA cycle. It is during this iterative testing phase that the implementation project demonstrates its adaptability in different settings and provides an opportunity to engage with leadership to instill change management leading practices to support full scale-up.

Scale-Up

Scale-up occurs rapidly with a robust implementation project. Within the DHA environment, time to scale-up may be accelerated by policy, a top-down directive, or external factors. This pervasive culture of urgency highlights the importance of sharpening adoption mechanisms and support systems within the setup phase, to achieve the infrastructure for scale-up and establish processes to support sustainability.

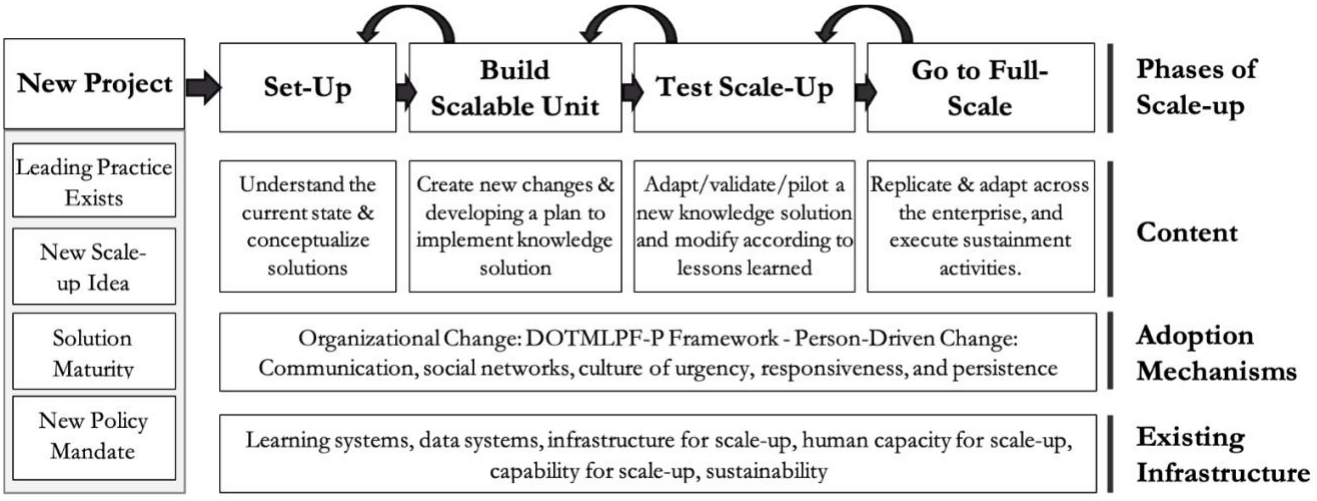
Policy is also key to implementation scale and spread, by enabling synchronization across the enterprise, defining requirements, and supporting organizational resourcing of knowledge solutions and/or de-implementation of ineffective practices. A clear supporting policy which outlines the roadmap for the desired end state will help initiate and sustain implementation of change across the enterprise. Policies should ideally be published either prior to or concurrently with the implementation process and should define process metrics, outcomes, and the desired end state for the implementation effort.

DAPT Case Study: Regulation, Policy, and Practice

Implementing and sustaining innovation within the MHS requires regulation and policy support: regulations drive policy, policy drives practice, and practice drives medical care delivery. Regulation, policy, and practice must all be in alignment to effectively implement and sustain innovation. To support DAPT, a DHA-AI was drafted to support the initial pilot and subsequent scale and spread across the MHS.

Figure 21. Scale and Spread Process

Adapted from [37]



Implementation Conclusion

While implementation execution will look different for every project, the frameworks, tools, and practices discussed in this section provide a starting point that can be adapted to each project's unique needs and clinical context. To learn how to adapt and adjust your implementation plan and strategies based on performance and outcomes, visit the Assessment section.

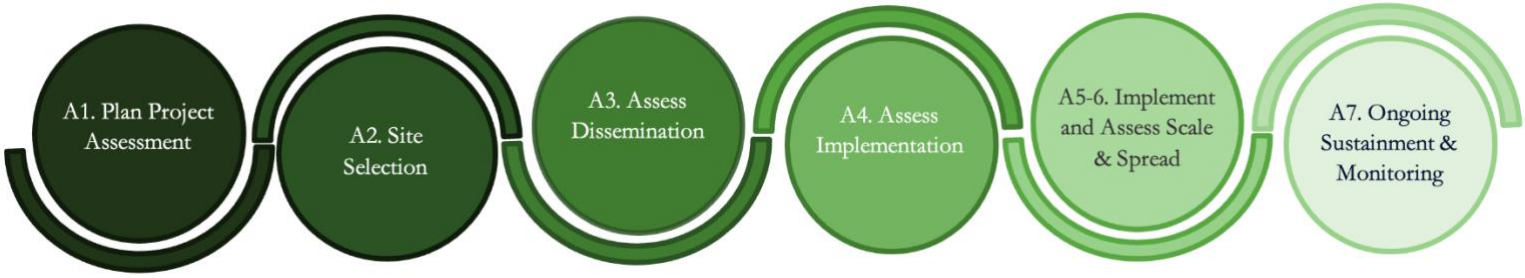
Assessment

Assessment is the proactive measurement and evaluation of dissemination and implementation efforts, including reach, adoption, process variables, and project outcomes. Assessment plays a critical role in understanding the impact of your project, capturing successes, identifying opportunities for course correction, and increasing the sustainability of your initiatives.

This section will cover various aspects of assessment, including planning assessments for projects, evaluating dissemination and implementation activities, assessing the feasibility of scaling and spreading a project pilot, examining scale and spread efforts, and ensuring ongoing sustainment and monitoring. By embedding assessment leading practices early in the project planning phase, you will gather essential data and insights that will inform decision-making, drive improvement, and optimize project outcomes. In this section, you will find step-by-step guidance, practical tips, and tools to help you navigate the assessment process effectively by embedding assessment leading practices early and often throughout your project.

Figure 22. Overview of Seven Assessment Processes

The figure below outlines the seven sequential assessment process steps. Assessment processes five and six are grouped; process five serves as a scale and spread decision point while process six concerns scale-up assessment. Assessment processes are interwoven with PM, D, and I. For example, A1. Plan Project Assessment joins the project planning phase (PM1-6) with the start of PM7. Project Execution and D1. and I1. Dissemination and Implementation Capacity Assessments.



Assessment Key Terms

1. **Scale and Spread**
   Practices that have sufficient social and scientific validation to warrant the large-scale investment needed to transform these knowledge solutions into practice. Scalable practices have documentation that they are needed, effective, usable, and feasible.
2. **Metric**
   A specified measurement of the impact, process, and/or performance of a knowledge solution within the implementation lifecycle.
3. **Process Measure**
   A metric that demonstrates the impact or success of a specific implementation science process (e.g., incorporation of dissemination leading practices into a campaign); can serve as intermediary measure if outcome data are not yet measurable or available.
4. **Data Sources**
   Repository of information that may inform the implementation team of the impact of the knowledge solution or implementation science process (e.g., electronic health record data, patient surveys, etc.).

A1. Plan Project Assessment

Project assessment allows you to evaluate the effectiveness of your initiatives and make informed decisions based on evidence. In a military health environment, where projects involve diverse clinical backgrounds and complex systems, careful planning and use of appropriate assessment tools are essential. The following provides guidance on how to plan project assessments, including using a logic model, establishing SMART goals, and determining leading assessment practices.

Using a Logic Model

A logic model is a valuable tool in planning project assessments (see IS Template **Assessment 1.1. Logic Model**). It helps identify the project's inputs, activities, outputs, outcomes, and impacts, providing a systematic framework to understand how the project is expected to achieve its goals.

- **Identify project components**: Start by clearly defining the project's inputs (resources, personnel, etc.), activities (interventions, actions, etc.), outputs (deliverables, products, etc.), and outcomes (short-term, medium, and long). Additionally, include assumptions (underlying ideas that influence other logic model components) and external factors (cultural, social, political, economic, and technological features of the environment that influence how a program operates and the target population it serves), as these components are subject to change, but can be important to track. This process ensures a comprehensive understanding of the project and its intended outcomes.
- **Establish logical connections**: Map out the logical connections between project components, illustrating how inputs lead to activities, which in turn produce outputs and outcomes. This visual representation will help you identify key points for assessment. (Note: Occasionally, it may be easier to start with your project's desired outcomes and work the logic model backwards.)

- **Identify assessment opportunities**: Examine the logic model to identify assessment opportunities at various stages of the project. Determine which components can be evaluated, which outcomes are measurable, and which metrics align with the project's goals. This analysis allows you to select appropriate assessment methods.

Throughout the project lifecycle, periodically refer to the logic model to ensure project activities are aligning with desired outputs and outcomes.

DAPT Case Study: Figure 23. Logic Model

This logic model demonstrates the process of identifying project components, establishing logical connections, and identifying assessment opportunities in a real world context. While it was developed at the beginning of the DAPT project, it was accessed throughout the project's duration to ensure that the project's activities aligned with its targeted outcomes.

Inputs	Activities	Outcomes		
		Short	Medium	Long
▪ **Stakeholders:** NMSK Clinical Community; Local Champions; IS Team ▪ **Requirements:** DHA-IPM 18-001 – Standard Appointing ▪ **Guidance:** Leading Program Submission (LPP)	▪ **Barriers & Facilitators:** Administer Request for Information (RFI) ▪ **Outreach Activities:** Build standard appointment protocol ▪ **Implementation:** Build standard appointment protocol	▪ Increase in protocol appointing for MSK complaints ▪ Decrease in amount of time from booking to initial MSK consultation	▪ Increase in amount of MSK encounters completed in PT ▪ Decrease in amount of MSK encounters completed in primary care	▪ Decrease in # of ADSM on temporary profile ▪ Increase in # of medically ready ADSM

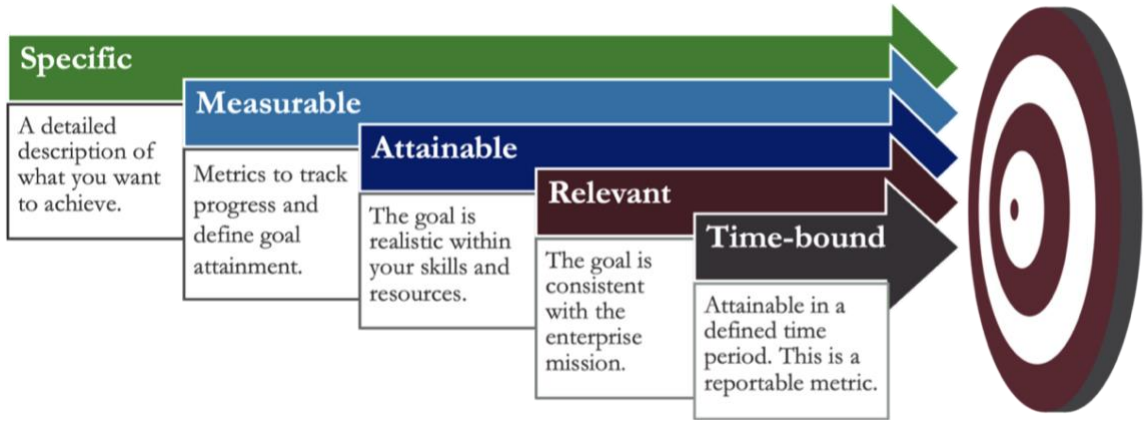
Assumptions	External Factors
▪ Consensus on standard appointment procedure/type from all stakeholders ▪ Access to relevant information	▪ Coordination with related MSK initiatives (e.g., MOTION, MSK Triage, etc.)

Establishing SMART Goals

Setting specific, measurable, achievable, relevant, and time-bound (SMART) goals is essential for effective project assessment planning. SMART goals provide clarity and focus, ensuring that assessments are purposeful and align with the project's objectives (see IS Template **Assessment 1.2. SMART Goals**). Consider the following when establishing SMART goals:

- **Specific**: Clearly define the aspect of the project that will be assessed and the desired outcomes. Avoid vague or broad statements that would make assessment challenging.
- **Measurable**: Identify quantifiable metrics that can be used to assess progress and outcomes. Establish baseline measurements, targets, and milestones to track the project's success.
- **Achievable**: Set realistic goals that can be reasonably achieved within the project's scope, available resources, and time constraints. Unrealistic goals can lead to skewed assessments and hinder project progress.
- **Relevant**: Ensure that the goals are relevant to the project's objectives and align with the broader context of military health. Assessments should focus on outcomes that contribute to overall project success.
- **Time-bound**: Set specific timeframes for assessment milestones and target completion dates, enabling project managers to track progress, identify delays, and take timely corrective actions.

Figure 24. Developing SMART Goals



DAPT Case Study: SMART Goal for a Short-term Process Metric

80% of appointing staff will successfully complete the training module on DAPT appointing procedures by June 1, 2022.

- Specific – Defines the who (appointing staff), what (training completion), and when (June 1, 2022).
- Measurable – Can be tracked via training completion reports.
- Achievable – Training module is already developed.
- Relevant – Standardized appointing is the first step to achieving standardized DAPT procedures.
- Time-bound – June 1, 2022.

Determining Assessment Leading Practices

Various assessment methods and practices have been identified as effective for evaluating projects. Consider the following leading practices when determining assessment approaches:

- **Select an assessment framework**: Embedding an assessment framework like PDSA, ADKAR, or RE-AIM (as covered in the Implementation section) will allow for performance and process tracking that is measurable and meaningful.
- **Mixed-methods approach**: Combine qualitative and quantitative methods to capture a comprehensive understanding of the project's impact. This approach helps validate findings and provides richer insights. For additional guidance, refer to IS Template **Assessment 1.3. Assessment Methods Matrix**.
- **Identify mid-tier or process metrics**: Implementation project outcomes can sometimes take years to assess. To measure the success of your project in the interim, report to key stakeholders, and learn from mistakes early and often, establish process measures and key metrics.

DAPT Case Study: Example Mid-Tier/ Process Metric

While it may take years to see a significant decrease in recovery days for NMSK patients, tracking the number of DAPT appointments created using the appointing tool (as self-reported by appointing staff) is a process metric that can be used to measure project success.

- **Pre- and post-assessment**: Conduct assessments before and after implementing interventions to compare the baseline and post-intervention outcomes.
- **Stakeholder engagement**: Involve key stakeholders in the assessment process to gain different perspectives and ensure relevance and buy-in. Collaborative assessments foster shared ownership and facilitate the implementation of assessment recommendations. For additional guidance engaging stakeholders and collecting qualitative data, reference Step D5. Develop Materials.
- **Data triangulation**: Use multiple sources of data (e.g., surveys, interviews, observation) to corroborate findings and enhance the validity and reliability of the assessment results. This approach strengthens the evidence base for decision-making.
- **Continuous monitoring**: Implement ongoing data collection and monitoring systems throughout the project lifecycle. Regularly reviewing data allows project managers to identify trends, track progress, and make timely adjustments to optimize project outcomes.

Project assessment can evolve as project dynamics change, but having the end goal and key assessment activities planned early in the implementation lifecycle will help you embed data collection strategies and make final reporting and sustainment significantly easier later on.

A2. Site Selection

Selecting the right site for piloting an implementation project is crucial. As the demand for efficient and effective knowledge solutions continues to grow within the military healthcare system, it has become increasingly vital to identify optimal sites to serve as testing grounds

for new initiatives. Selection of the site for implementation requires thoughtful consideration to drive transformative and sustainable change, and will be different for each knowledge solution.

Considerations for selecting a location that supports adoption of the knowledge solution include:

1. Patient mix and volume

The best sites for implementation are those that present the largest benefit to the most patients with the lowest burden on the staff. Each military hospital or clinic differs in its patient load. The volume of patients can affect implementation in both positive and negative ways. A high volume of patients presents the opportunity to help the most people, but high volume relative to clinic staff may decrease the ability to adopt new knowledge solutions. The prevalence of particular health conditions presents yet another variable to the patient mix.

2. Mission alignment

The in-garrison, deployed or operational mission, and the size of the military hospital or clinic impact how new procedures are integrated into practice. Programs operate differently in a major medical center versus a small clinic or battalion aid station, so the installation mission drives most programs and practices. In addition, rural, remote, and overseas locations have varying levels of support infrastructure.

3. Location, size, type of military hospital/clinic

Some sites are frequently used for testing new knowledge solutions, and many of those are included in existing networks, such as the Practice Based Implementation Network[38]. While a site well-practiced in implementing new programs may seem like an easy pick, it may not present the same learning opportunity as a less practiced site. Less exposed sites provide an opportunity for the implementation team to develop strategies and overcome barriers. Ideally, implementation would be conducted at an "average" location, or a series of locations that are representative of each service and facility size. Additionally, some services require specific clinical settings. For example, a knowledge solution designed for traditional outpatient care may not be effective in integrated primary care.

4. Resource availability

Military hospitals and clinics carefully balance the distribution of personnel, patient care, and operational expenses to maximize outcomes. Any organizational change that requires staff time can detract from standard patient care. Availability, experience, level of training and frequent changes of personnel are all important considerations that can affect successful implementation strategies. If specialized expertise such as data collection, change management or outcome measurement is needed, qualified candidates may have to be recruited. It cannot be assumed these services are readily available at all military hospitals/clinics.

5. Existing relationships and availability of a champion

The importance of securing command support for the implementation process early cannot be overstated. Senior leadership approval is necessary to gain access and approval for the implementation activities. If full support from command staff is secured, their active backing fosters a positive environment for adoption. Any existing relationships that could be leveraged to cultivate a champion at the preferred sites should be considered in the site selection process. Identifying a local representative that believes in the knowledge solution and is willing to champion the process is a key factor of success. Consider enlisting help from someone with senior rank to serve as the champion; they will have the authority to make necessary decisions and the passion to lead the team though implementation activities.

DAPT Case Study: Site Selection

The DAPT project was piloted at the Puget Sound Market in June 2022. This site was selected for several reasons, including:

- Use of MHS GENESIS EHR allowed for improved appointment tracking and data collection.
- High-ranking providers that were involved throughout the project served as champions at the Puget Sound Market.
- A previous iteration of DAPT had been conducted at this location, and so providers and staff were familiar with the practice – allowing the implementation team to focus on solution standardization (rather than solution effectiveness).

Once you have identified a pilot site, continue to coordinate and support on-site champions who are integral to the execution and success of the project pilot. Making a site visit prior to implementation will help you identify the logistics of the pilot (location, date, time, etc.), meet key stakeholders (leaders, administrative staff, clinical champions, etc.), and gain a better understanding of significant factors impacting the implementation project that might otherwise go undetected.

A3. Assess Dissemination

Assessing the reach and impact of dissemination activities and products is paramount, as the success of any initiative hinges on effective dissemination of knowledge and resources. Dissemination serves as the vital link between research findings, evidence-based knowledge solutions, and their application in real-world military health settings. Assessing the reach and impact of dissemination efforts can present certain challenges and limitations. This step outlines some high-level guidance on how to assess your project's dissemination activities.

Determine Engagement

Planned and well-executed outreach is a significant activity when implementing solutions. Therefore, it deserves performance tracking like any other clinical and implementation activity. Social media and online sources are obvious channels for outreach, and they are attached to data collection platforms that can be tracked throughout an implementation project's lifecycle. For web-based, electronic solutions, routinely apply web-activity data collection and analytics (e.g., DAP Analytics 360) to estimate solution outreach and adoption performance and gain insights on dissemination improvement. Customize data collection methods to match identified communication channels and note appropriate data collection methods in your data collection plan. Consider tracking statistics such as number of webpage views, number of documents downloaded, and repeat visits to gauge the effectiveness of the channels.

DAPT Case Study: Dissemination Metrics

Embed tracking links within DAPT social media posts across platforms and measure how many users click on links to learn more.

Determine Reach

After dissemination products have been dispersed throughout the target population, consider conducting a dissemination process assessment using IS Template **A3. Data Collection and Analysis Worksheet**. The

main purpose of this type of assessment is to determine reach by answering the questions:

- Did the dissemination products reach the target population?
- Are there additional stakeholders that need to be reached?
- Is there a different or better way to reach the intended target population?

Determine Impact

Regularly apply qualitative data collections and analysis, including structured and semi-structured interviews, focus groups, usability tests and feedback requests, among relevant stakeholders and end-users to gain insights on dissemination products' impact and recommendations for improvement.

To assist with qualitative data collection efforts, refer to Step D5. Develop Materials.

A4. Assess Implementation

Implementing evidence-based solutions in real-world settings is a complex and multifaceted process that requires ongoing assessment to ensure optimal outcomes. This step focuses on the significance of assessing implementation activities throughout the pilot phase and beyond. By systematically monitoring and evaluating the implementation process, you can identify barriers, challenges, and successes, allowing you to refine and adapt strategies for future scalability. Ultimately, this knowledge enables you to continuously improve the delivery of high-quality healthcare services to beneficiaries.

This step-by-step guide provides a comprehensive framework for assessing implementation activities, including pre-implementation, during implementation, and post-implementation.

Pre-implementation Assessment

Gain approvals: Ensure that all necessary approvals and permissions are obtained from relevant stakeholders, such as military leadership, regulatory bodies, and ethics committees. This step is critical for ensuring compliance and ethical considerations. Leveraging data collections can require oversight approvals in a number of forms depending on the data collected and purpose of collection.[39, 40]

It is important to adhere to ethical guidelines and obtain necessary approvals before conducting any assessments involving human subjects or sensitive data. Remember to give informed consent prior to qualitative data collection.

Collect and establish baselines: Begin by collecting relevant data to establish baseline measures. This may include information on current practices, resource availability, staff skills, current beliefs or knowledge, and organizational readiness. These baselines will serve as a benchmark for assessing changes throughout the implementation process.

During Implementation Assessment

Implement knowledge checks: Throughout the implementation process, incorporate knowledge checks to assess the understanding and retention of key concepts among personnel involved. Use surveys or informal discussions to gauge the uptake of information and identify areas that require additional support or clarification. This assessment is especially important if education and training are part of your implementation plan.

Monitor fidelity and adherence: Regularly assess fidelity and adherence to the implementation protocol or guidelines. Observe and document whether the planned activities are being executed as intended. Use fidelity

checklists, direct observations, or quality assurance measures to track adherence and identify any deviations that may impact outcomes.

Post-implementation Assessment

Evaluate behavior change: Assess the extent to which the desired behavior change has occurred among healthcare providers or other relevant stakeholders using a framework like ADKAR. Use surveys, interviews, or observational studies to gather feedback and measure changes in practice.

Measure adoption rates: Determine the rate of adoption of the knowledge solution across the MHS. This measurement can be obtained by tracking the number of sites or units that have successfully incorporated the intervention into their routine operations. Additionally, assess the level of acceptance and satisfaction among end users to gauge the overall adoption process.

Analyze outcomes and impact: Examine the impact of the implementation activities on desired outcomes, such as improved patient outcomes, increased efficiency, or enhanced quality of care. Analytical methods, including statistical analyses, can help determine the relationship between implementation activities and the intended outcomes. Refer to your logic model when assessing outcomes.

DAPT Case Study: Adoption Rates

In addition to tracking the number of appointments booked using the DAPT appointing code, another way to measure adoption of DAPT is to track number of primary care visits. If Service Members with acute musculoskeletal injuries are using DAPT, total primary care visits should decrease.

Remember that assessment should be an ongoing process, allowing for course corrections and refinements throughout the implementation journey. By systematically evaluating implementation activities, you can identify areas of strength and improvement, enabling continuous learning in military healthcare delivery.

A5. Scale & Spread?

By conducting an implementation project pilot, you can make an informed decision about scaling a knowledge solution to other military hospitals and clinics. Thoughtful assessment planning and execution post-pilot increases the likelihood of successful implementation and positively impacts healthcare delivery and change management in a military health environment. After successfully piloting your implementation project at a military hospital or clinic, carefully consider several factors before deciding to spread and scale.

Assess Pilot

Assess the effectiveness of the knowledge solution during your implementation project pilot: Evaluate the outcomes achieved during the pilot phase, considering factors such as improved patient outcomes, adoption rates, increased efficiency, cost-effectiveness, and staff satisfaction. Analyze both quantitative and qualitative data to understand the impact of the solution. Were project goals met effectively?

Review implementation fidelity: Evaluate the extent to which the knowledge solution was implemented as intended during the pilot phase.

Assess the fidelity of the project's key components and whether any modifications were made to adapt to the local context. This process helps identify factors that may have influenced the outcomes and determine how your project may need to be adapted at additional sites.

Use a tool such as IS Template **Assessment 5.1. Lessons Learned Log** to track changes that are needed to improve operations during your scale and spread effort to better meet your project goals.

Assess Generalizability

Analyze contextual factors: Consider the unique characteristics of the pilot site and assess the generalizability of the knowledge solution to other military hospitals and clinics. Evaluate the similarities and differences in resources, infrastructure, patient populations, and organizational culture that may impact the scalability and sustainability of the solution.

Determine adaptability: Assess the flexibility and adaptability of the knowledge solution to different settings. Consider whether modifications or customization are necessary to fit the specific needs and constraints of other military hospitals and clinics. Identify potential barriers and challenges that may arise during scaling and develop strategies to address them.

Develop a Scaling Plan

Refer to your logic model and determine if any changes are needed to achieve the project's desired outcomes at additional sites. Consider the desired outcomes, target hospitals and clinics, and timelines for implementation.

Develop an implementation strategy: Create a detailed plan for scaling the knowledge solution, including strategies for training and education, communication, stakeholder engagement, and monitoring and evaluation based on pilot successes. In addition to the assessment tools included in the previous steps, periodically conduct after action reviews using IS Template **Assessment 5.2. After Action Review** to identify improvement opportunities as part of your scaling plan.

Figure 25: After Action Review Key Measurements

Use the following questions to guide reflection and collect takeaways after a key phase within the dissemination or implementation processes.

Implement and Monitor

Initiate scaling activities: Implement the scaling plan in collaboration with the target hospitals and clinics. Provide necessary training and support to facilitate the adoption and implementation of your project based on identified lessons learned.

Monitor implementation progress: Continuously monitor and evaluate the implementation process across the target hospitals and clinics. Collect data on fidelity, adherence, and outcomes to identify areas of success and areas requiring improvement. Adjust the scaling plan as needed to address challenges and ensure successful implementation.

Continuously Learn and Improve

Foster a learning culture: Encourage a culture of learning and improvement throughout the scaling process. Foster open communication channels for feedback and create opportunities for shared learning among the participating sites.

Adapt and refine: Regularly assess and refine the scaling strategy based on lessons learned and feedback from the target hospitals. Modify implementation approaches as necessary to optimize the impact and sustainability of the knowledge solution.

A6. Assess Scale-Up

Assessing the success of a scale-up effort for a knowledge solution is integral to ensuring effective implementation and optimization of resources. After you have conducted a scale and spread effort or phased implementation, continue to utilize a PDSA model to learn and improve from all implementation activities (see Step I2. Select Implementation Strategy for more information). Reference your previous assessment activities and leading practices to determine next phases for your implementation project.

Consider the following:

1. Were scale and spread goals met?
2. Were there different outcomes from the scale and spread effort compared to the pilot?
3. How will the project be sustained as it's spread to additional sites?

Now that you have assessed your scale-up effort, you can transition into ongoing sustainment and monitoring.

A7. Ongoing Sustainment & Monitoring

Ongoing sustainment and monitoring are the last assessment steps in the lifecycle of an implementation project, though the work continues. Maintenance is an organizational-level measure and looks at the extent to which the knowledge solution achieves the desired outcome for an extended period and measures the sustainability of the process. Use IS Template **Assessment 7. Sustainment Planner** to track ongoing assessment findings to ensure collected data are used to make actionable and meaningful decisions to improve process efficiencies and health outcomes. In addition to completing a sustainment planner, here are some additional activities to promote successful implementation project sustainment and monitoring:

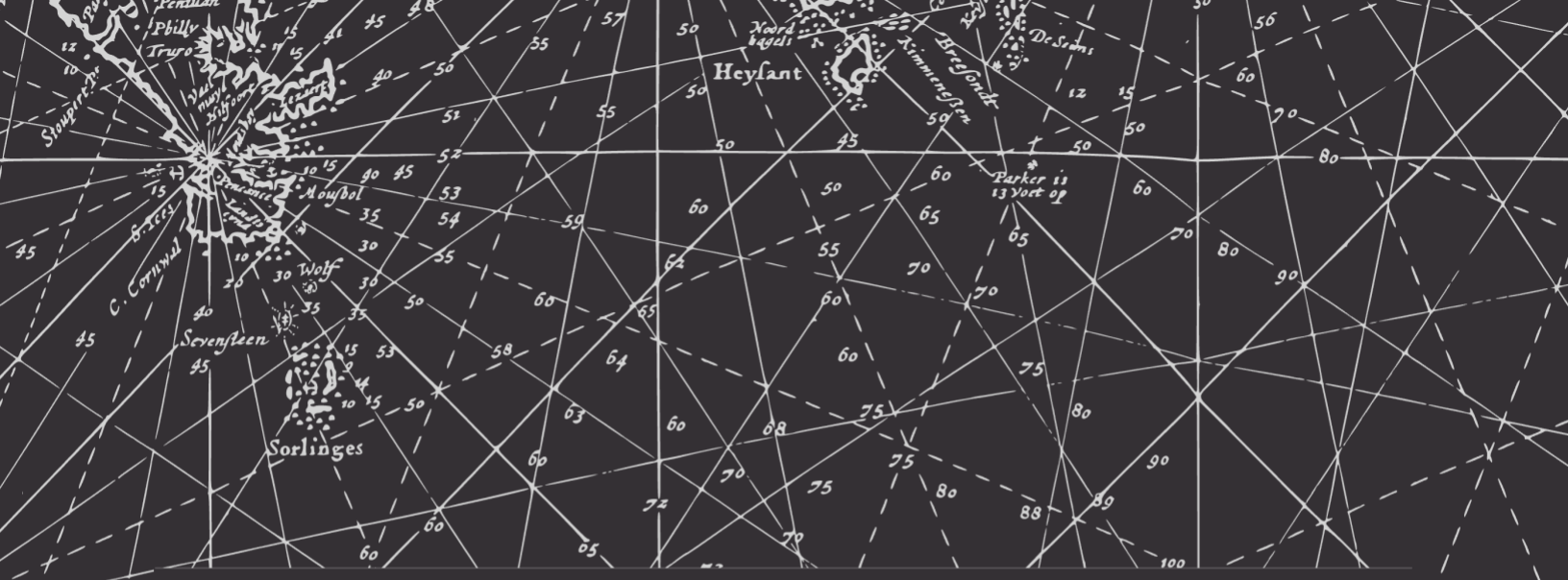
- Establish short-, medium-, and long-term project outcomes early in the implementation project planning phase to keep the goal line in mind as you sustain project activities.
- Conduct periodic and frequent after action reviews internally and externally to collect lessons learned, apply improvements, refine process steps as needed, and identify facilitators for sustainment.
- Focus implementation efforts on ways to build capacity by connecting project activities with supporting resources (tools, templates, champions, data sources, strategies).
- Select and apply appropriate evidence-based assessment frameworks like PDSA, ADKAR, or RE-AIM.
- Create project lifecycle management tools to assist with de-implementation of outdated materials and resources and to help automate and sustain project-critical updates to resources and policies (see Step D6. Execute Dissemination Plan).
- Maintain feedback loops to keep key stakeholders engaged and informed, always remembering that the communication is bidirectional. It is just as important to hear from end users as it is to disseminate information to them.

Once the project has reached the sustainment and monitoring phase, consider documenting

relevant process metrics, outcome data, lessons learned, and other details in a final report. This report can serve as a product to share with interested stakeholders, or as a reference if responsibility for the project is transitioned to another task owner. For further information on developing final reports, see Step PM8. Final Reporting & Transition.

Assessment Conclusion

Ongoing sustainment and monitoring are essential steps in the assessment phase of an implementation project. While it may mark the end of the formal assessment process, it signifies the beginning of the challenging work required to ensure sustained success. Project maintenance, measured through organizational-level metrics, evaluates the durability of the implemented solution and its ability to deliver desired outcomes over an extended period. By implementing these strategies, implementation projects can foster sustainability, drive continuous improvement, and ultimately achieve long-lasting positive impacts in military healthcare delivery.



Conclusion

Congratulations on reaching the conclusion of the IS Guidebook! You have now followed an implementation project from inception to sustainment, as a knowledge solution was transitioned from research product to widespread clinical practice. Through continuous and repeated cycles of project management, dissemination, implementation, and assessment, the implementation team effectively resourced and directed the project, raised awareness for the solution among target audiences, facilitated adoption among end users, and evaluated the impact of the implementation process and the knowledge solution.

Though the Guidebook has concluded, the work needed to sustain the benefits of the knowledge solution has not. Ensuring that the knowledge solution remains integrated into clinical practice will require ongoing maintenance efforts from the implementation team or others who have assumed responsibility for the knowledge solution. Implementation science is not a "quick fix" for implementing knowledge solutions, but rather a systematic process that should be integrated into your organization's regular operating procedures.

Now that you have reviewed the process steps for implementing a knowledge solution, you can use the leading practices, tips, and tools outlined in this Guidebook to apply the steps to an implementation project within your organization. While the Guidebook is intended to outline a recognizable and reproducible process, steps may certainly be adapted and/or reordered to match the unique needs and capabilities of your organization and project. For further reading and resources as you begin implementing, see the Further Reading appendix.

Happy implementing!

This Guidebook was produced by the Implementation Science Branch (ISB) within the Research & Engineering Directorate of the Defense Health Agency.

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Further Reading

Project Management

DHA Enterprise Solutions PM Tools

U.S. Defense Health Agency, 2023. (CAC-enabled.)

The Prosci ADKAR Model Guides

Prosci, 2021.

Dissemination

DHA Brand Resources for Communicators

- MHS Brand Standards
- MHS Enterprise Style Guide
- DHA Brand Standards
- TRICARE Trademark and Branding Program
- Ready Reliable Care Style Guide

U.S. Defense Health Agency, 2023.

Federal Plain Language Guidelines and **Plain Language Checklist**

U.S. General Services Administration, 2011.

Section508.gov: Content Creation

U.S. General Services Administration, 2023.

CDC Health Literacy Guidance and Tools

U.S. Centers for Disease Control and Prevention, 2023.

Implementation

QUERI Roadmap for Implementation and Quality Improvement

- Appendix I. Flow Mapping Guide

U.S. Department of Veterans Affairs, 2020.

Acquisition Encyclopedia: DOTMLPF-P Analysis

Defense Acquisition University, 2023.

Guide to Process Mapping: Definition, How-to, and Tips

Asana, 2022.

Dissemination & Implementation Models in Health: An Interactive Webtool

University of Colorado Denver, 2023.

Theory Comparison and Selection Tool (T-CaST)

University of North Carolina Chapel Hill, 2023.

Strategy Design – The Consolidated Framework for Implementation Research

CFIR Center for Clinical Management Research, 2023.

Assessment

Logic Model Development Guide

W.K Kellogg Foundation, 2004.

CDC Evaluation Resources

U.S. Centers for Disease Control and Prevention, 2023.

Glossary

Acronyms

A - Assessment

AAR - After Action Review

ADKAR - Awareness, Desire, Knowledge, Ability, and Reinforcement

AI - Administrative Instruction

BFA - Barriers and Facilitators Assessment

CAC - Common Access Card

CC - Clinic Chief or Clinical Community

CCAC - Clinical Community Advisory Council

CMO - Chief Medical Officer

CMT - Clinical Management Team

CNO - Chief Nursing Officer

CPG - Clinical Practice Guideline

CRC - Colorectal Cancer

D - Dissemination

D, I & A - Dissemination, Implementation, and Assessement

D&I - Dissemination and Implementation

DAPT - Direct Access to Physical Therapy

DHA - Defense Health Agency

DOTMLPF-P - Doctrine, Organization, Training, Materiel, Leadership, Personnel, Facilities, and Policy

DUA - Data-use Agreements

DVIDS - Defense Visual Information Distribution Service

EHR - Electronic Health Record

ERIC - Expert Recommendation for Implementation Change

ES - Enterprise Solutions

FAQ - Frequently Asked Questions

FTE - Full Time Employee

HIV - Human Immunodeficiency Virus

I - Implementation

ICTL - Individual Critical Task Lists

IRMAC - Integrated Referral Management and Appointing Center

IS - Implementation Science

ISB - Implementation Science Branch

KSA - Knowledge, Skills, and Abilities

LH - Labor Hours

MHS - Military Health System

MTF - Military Medical Treatment Facility

NMSK - Neuromusculoskeletal

OPORDS - Operations Orders

OPTEMPO - Operations Tempo

PAO - Public Affairs Office

PDSA - Plan, Do, Study, Act

PI - Procedural Instruction

PLL - Product Line Leader

PM - Project Management

PM, D, I & A - Project Management, Dissemination, Implementation, and Assessment

POAM - Plan of Action and Milestones

POC - Point of Contact

PrEP - Pre-Exposure Prophylaxis

PRISM - Practical, Robust Implementation and Sustainability Model

PT - Physical Therapy

Q [as in Q1, Q2, Q3, and Q4] - Quarter

QR Code - Quick Read Code

R&E - Research & Engineering Directorate

RACI - Responsible, Accountable, Consulted, Informed

RE-AIM - Reach, Effectiveness, Adoption, Implementation, and Maintenance

RFI - Request for Information

RSD - Research Support Division

SMART Goal - Specific, Measurable, Achievable, Relevant, and Time-bound

SME - Subject Matter Expert

SOP - Standard Operating Procedure

WBS - Work Breakdown Structure

Terms

Each term listed below is hyperlinked to its first occurrence in the IS Guidebook.

A3 - A storyboard documenting project activities throughout the project lifecycle. This structured format guides and documents project problem-solving and continuous improvement. An A3 is populated incrementally throughout the project lifecycle; each section of the A3 corresponds to one of the five stages in the DHA Project Management (PM) Approach. An A3 can be printed on a single sheet of ISO-A3 size paper, which is the source of the tool's name.[Adapted from 4]

Activities [Logic Model] - Interventions, actions, etc.

Adoption - Incorporation of knowledge solution into regular use by end users.

After Action Review - Semi-structured discussion that provides the internal implementation team and/or external stakeholders with the opportunity to share their viewpoints on the successes, challenges, and processes of the project.

Assessment - The proactive measurement and evaluation of dissemination and implementation efforts, including reach, adoption, process variables, and project outcomes.

Assumptions [Logic Model] - Underlying ideas that influence other logic model components.

Audience Profile - Tool for recording the backgrounds and behaviors of target audiences, focusing on the needs and interests of each group.

Barriers and Facilitators Assessment - A tool used to determine contextual determinants of dissemination and implementation feasibility and identify strategies to support adoption and sustainment.

Baseline - Initial measurements that can serve as a benchmark for assessing changes throughout the implementation science process.

Capacity - Systems, activities, and resources that are necessary for an organization or agency to successfully adopt and sustain knowledge solutions.[Adapted from 41]

Champion - A respected opinion leader at a local site, committed to the knowledge solution; leads the site Implementation team and can serve as a liaison between target audience groups.

Change Management - An enabling framework for managing the people side of change.[Adapted from 42]

Channel - A medium or method through which knowledge solution information is shared (e.g., briefings, social media, etc.).

Data Source - Repository of information that may inform the implementation team of the impact of the knowledge solution or implementation science process (e.g., electronic health record data, patient surveys, etc.).

Data Triangulation - The use of multiple sources of data (e.g., surveys, interviews, observation) to corroborate findings and enhance the validity and reliability of the assessment results.

De-Implementation - Reducing or stopping the use or delivery of services or practices that are ineffective, unproven, harmful, overused, inappropriate, or will be replaced by the new knowledge solution being implemented.[43]

Dissemination - An active approach of spreading knowledge solutions to target audiences via determined channels using planned tactics.

Dissemination Plan - A plan that includes all relevant details to execute dissemination of your solution, including (but not limited to): channels, products, tactics, key messages, timelines, and dissemination partners.

DOTMLPF-P - Military-specific strategic framework that can help in assessing capacity and gaps in the areas of Doctrine, Organization, Training, Materiel, Leadership, Personnel, Facilities, and Policy.

Effectiveness - A measure of the success and acceptability of a knowledge solution when implemented in a clinical environment.

Evidence-Based - Solutions that originate from or are strongly supported by data, research, outcomes, and/or results.

External Factors [Logic Model] - Cultural, social, political, economic, and technological features of the environment that influence how a program operates and the target population it serves.

Focus Group - A facilitated group interview of individuals who represent the target audiences for the knowledge solution.

Framework - Strategic or action-planning models that provide a systematic way to develop, manage, and evaluate interventions.

Go Live - The point when a knowledge solution is officially integrated into practice at a site.

Impact - The change effected by implementation efforts.

Implementation - The use of strategies to adopt and integrate knowledge products within specific systems.[Adapted from 14]

Implementation Plan - A detailed plan outlining actions needed to reach one or more goals of an effective and sustained systems change effort. Action plans include specific tasks, who is responsible for each task, and by when each task should be completed.[Adapted from 41]

Implementation Science - The scientific study of methods and strategies that facilitate the adoption of evidence-based practice and research into regular use by practitioners and policymakers.[1]

Implementation Strategy - The frameworks and methods that assist the implementation team in organizing thinking and planning implementation.

Implementation Team - A core set of individuals charged with executing implementation of the knowledge solution. This team engages stakeholders, increases capacity for implementation, creates an implementation plan, monitors outcomes and addresses barriers to implementation, among other activities.[Adapted from 41]

Inputs [Logic Model] - Resources, personnel, etc.

Key Message - The principal information that your audience should know regarding the knowledge solution.

Knowledge Solution - Research or evidence-supported information or innovation to improve clinical practice, process, or outcomes.

Leading Practice - A procedure or practice that has been shown by research and experience to produce optimal results. [Adapted from 44]

Lessons Learned Log - Running list of actionable insights from project implementation activities.

Level of Effort - A measure of project readiness that accounts for a project's status, support, degree of change, and assessment procedures.

Level of Impact - A measure of project readiness that accounts for a knowledge solution's relevance and effectiveness.

Lifecycle Management - The ongoing maintenance of content and products created for knowledge solution implementation.

Logic Model - A tool for planning project assessments that helps identify the project's inputs, activities, outputs, outcomes, and impacts, providing a systematic framework to understand how the project is expected to achieve its goals.

Metric - A specified measurement of the impact, process, and/or performance of a knowledge solution within the implementation lifecycle.

Mixed-Methods Approach - The combination of qualitative and quantitative methods to capture a comprehensive understanding of the project's impact.

Monitoring - Ongoing and regular data collection and analysis to identify trends, track progress, and make timely adjustments to optimize project outcomes.

Needs and Gaps Assessment - A decision-making aid that assesses the gap between the current and desired states of your project/organization.

Outcome - The results of any implementation effort defined in relation to improvements in infrastructure, capacity, and impact on the population served by the knowledge solution.

Outcomes [Logic Model] - Short-term, medium, and/or long outcomes of the implementation effort. [Adapted from 41]

Outputs [Logic Model] - Deliverables, products, etc.

Phased Implementation - A step-by-step approach to implementation, in which a knowledge solution is first implemented in a project pilot, undergoes troubleshooting for challenges that emerge, and incorporates solutions for future scale and spread.

Pilot - Initial small-scale execution of a project at a site that provides context and recommendations for scale at additional sites.

Plan of Action and Milestones - A project management tool that breaks up a project into actionable assignments based on a timeline. It focuses on milestones and key tasks instead of activities. [Adapted from 4]

Process Map - A workflow diagram which provides an overview of a process and its components; essential for identifying key relationships, decision points, and workflow steps and gaps.

Process Measure - A metric that demonstrates the impact or success of a specific implementation science process (e.g., success of a dissemination campaign); can serve as intermediary measure if outcome data are not yet measurable or available.

Product - A created material that communicates information about the knowledge solution (e.g., briefing deck, infographic, etc.).

Project Appropriateness - The project's alignment with your team's current capabilities and capacity.

Project Lead - Also known as "project manager," the project lead oversees the implementation team, manages all project activities, and serves as the main point of contact for the project.

Project Management - The establishment of plans and processes and the administration of resources with the aim of meeting project goals.

Project Readiness - Refers to the suitability of the project for implementation, accounting for knowledge solution maturity and priority level, as well as levels of effort and impact.

Quad Chart - An organizational tool that provides a high-level overview of the most pertinent factors influencing a project; can be used to brief leadership and key stakeholders on project scope, anticipated challenges that may require support, and high-level milestones and timelines.

RACI - A tool used to manage the type and level of engagement needed from each identified stakeholder and to assign responsibilities to each team member. (Responsible, Accountable, Consulted, Informed.) Note: RA(S)CIs may sometimes also include a designation for a Support role.

Reach - The proportion of a target audience who participates in a knowledge solution and the representativeness of those participants.[44]

Relevance - The prevalence of the problem within the health system and the ability of the knowledge solution to remediate it.

Scalability - The capacity to be changed in size or scale – the property of a system to handle a growing expansion of implementation.

Scale and Spread - Practices that have sufficient social and scientific validation to warrant the large-scale investment needed to transform these knowledge solutions into practice. Scalable practices have documentation that they are needed, effective, usable, and feasible. Adapted from 41

Section 508 Compliance - Adherence to the rules and regulations regarding electronic content and communications products outlined in Section 508 of the Rehabilitation Act of 1973.[Adapted from 45]

SMART Goals - Objectives that are Specific, Measurable, Attainable, Relevant (lead to desired results) and Time-Bound (target date to accomplish the objective).[Adapted from 46]

Solution Maturity - Refers to a solution's readiness to undergo the dissemination, implementation, and assessment processes to provide value.

Stakeholder - A person or group of people who has an interest or investment in the outcome of the activities; this term can be used for all collective target audiences.

Stakeholder Mapping - The act of organizing stakeholders according to their levels of interest in and influence on the project.

Subject Matter Expert - An individual with specialized knowledge of a clinical field or implementation science process.

Sustainability - The capacity to be maintained or upheld at the desired rate or level of implementation.

Tabletop Exercise - The practice of walking through an implementation plan from end to end with stakeholders to ensure plan viability.

Tactic - The combination of a channel and a product; i.e., the activity undertaken to communicate the knowledge solution.

Target Audience - Individuals or groups intended to know about or use the knowledge solution.

Usability Test - The act of assessing the practical use and application of a product by testing it with stakeholders and/or end users.

Work Breakdown Structure - A hierarchical decomposition of the work required to achieve project objectives and deliverables. It visually divides project work into manageable work packages. Each level of the structure provides further definition and detail of the work required. A work package is its lowest level where the activity can be clearly defined, enabling the development of time and costs estimates with a single responsible owner. It specifies what will be done and informs the project schedule. Adapted from 4

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