



Division of Sexually Transmitted Disease Prevention Business Process Management Model for STD Prevention

Deliverable 4a

BPMM Literature Review

CONTRACT GS-10F-0087N



BPMM Literature Review

Introduction	2
Case Studies on Process Modeling	4
United States Army - Human Resources	
American Red Cross – New York and Atlanta Chapters	5
Case Studies on Technology Development	8
Continuity of Care Record	
University Physicians Group	9
Patient Safety Institute	
Case Studies on Implementation	
Hawaii Department of Health	13
California Healthcare Market	
Hurdle the Cross-Functional Barriers to Strategic Change	15
Conclusion	

Introduction

All organizations, ranging from public agencies, to non-profits companies, to forprofit private companies, undertake business process redesign at some point to facilitate improvement of their work. Business Process Modeling is an important tool for instituting lasting process change in any organization, whether it supports new technology, altered strategic objectives, or augmented programmatic activity. Business process modeling allows organizations to identify and map current planned activities, and ensure stakeholders have a common language for discussing those activities.

In preparation for the development and implementation of the NEDSS-based STD Program Area Module (PAM), the Division of STD Prevention (DSTDP) has undertaken its own Business Process Management Methodology (BPMM) initiative. DSTDP is employing the BPMM initiative to identify leading practices for STD Prevention, inform the development of the STD PAM and support state and local health departments in implementing an electronic disease reporting and investigation system.

In order to conduct this work, DSTDP has embarked on an 18 month business process modeling initiative. Although DSTDP is a unique organization it can learn from the experience of other agencies conducting similar initiatives. Therefore, the attached analysis presents a review of congruent initiatives conducted in other organizations.

This document provides highlights from seven other related initiatives, especially related to the leading practices utilized by the other initiatives, and lessons learned from their experience, that may help shape the efforts and approach for this new and exciting initiative at DSTDP. Specifically, this paper examines related initiatives in 1) Business process modeling 2) Collaborative technology development and 3) Process improvements related to technology implementations.

A few of the overarching themes in these findings include:

- Involving a broad group of stakeholders in collaborative development facilitates ownership and adoption
- Conducting process improvements and organizational re-design in tandem with technology development increases the likelihood that improvements will be remain in place
- Keeping all groups equally involved in the initiative avoids the perception that one group "owns" the initiative or has a greater say in the output
- Acknowledging all user comments or questions helps demonstrate to users that their input is valued, encouraging them to maintain involvement in the initiative
- Using stakeholder time effectively is critical as the initiative progresses

BPMM Literature Review

- Testing new processes while simultaneously running old ones will help users establish a level of comfort prior to full transition to new processes
- Publishing a governance structure will help stakeholders as they have questions leading up to implementation
- Phasing the implementation approach for new processes and new technology often helps with user adoption
- Proving benefits of adoption to end users will help ensure their acceptance of changes

DSTDP can incorporate the information presented here into the BPMM initiative. Best practices and lessons learned can also help DSTDP support the development and implementation of the NBS/STD PAM. Consequently, the applicability to the BPMM/STD PAM is explored briefly after each case study.

Case Studies on Process Modeling

United States Army - Human Resources

Goal of the Initiative

Document a process model, future state process flows and back up materials for an initiative to integrate all human resources business processes across all components and civilians serving in the Army. Stakeholders sought to identify a tangible improvement of a 30% increase in efficiency.

Leading Practices

- Conducted large group collaborative sessions across all functions and processes.
- Identified Policy, Law and Technology requirements concurrent with process work.
- Documented both As-Is (current) and To-Be (future) processes and calculated estimates of effort savings. Documented in standard formats to provide baseline for ongoing analysis and continuous improvement.
- Established a process governance structure (Advisory Committee and Process Stewards) to provide leadership, accountability and ongoing guidance.

Lessons Learned

- Allowing some stakeholder groups to operate independently from other groups, with minimal facilitation resulted in significant rework and caused the schedule to be delayed, as materials and activities had to be reconciled
- Allowing only four pre-determined symbols to be used in used in diagrams accelerated their work and maintained consistency within documentation and outcomes
- Identifying more internal leading practices prior to initial sessions would have further accelerated the high pace of work.
- Identifying process overarching organizational impacts, such as organizational design and culture as a separate initiative streamlined the process. Stakeholders were able to concentrate process improvements during their collaborative sessions and complete their tasks
- Conducting facilitated sessions with a large group of stakeholders vastly accelerated their work

Implications for BPMM/STD PAM

As DSTDP is also modeling current and future processes for a wide array of stakeholders, they can apply these leading practices and lessons learned from the Army initiative to their design activities.

- 1) Include a large group of stakeholders in facilitated design sessions to accelerate as-is and to-be documentation. This will allow for better standardization than separate work group activity as well.
- 2) Assess organizational impacts in a separate working environment from process improvements. Potentially other sessions or small groups could be used to ensure completion of process design in a timeline manner.
- 3) Examine existing best practices to inform development. Information should be garnered from state and local health departments, as well as other CDC Divisions on programmatic activities, data processing and program monitoring, as well as technology development and implementation. Inclusion of a full range of stakeholders in design can facilitate this goal.
- 4) Maintain close relationships with all stakeholders, including those developing their own process models and implementing systems other than NEDSS. With an eye towards the BPMM schedule, and its impact on STD PAM development and that schedule, DSTDP should identify the extent to which they can manage these groups, against the level of effort and expected benefit.

CGEY Knowledge Repository; Mark Rushing.

American Red Cross – New York and Atlanta Chapters

Goal of the Initiative

Redefine all business processes in two chapters of the American Red Cross (New York & Atlanta) to prepare for an implementation of a customer relationship management (CRM) application. Develop and implement the CRM system.

Leading Practices

- Performed Business Process Modeling with two chapters to ensure that documentation was flexible and able to accommodate multiple sites
- Used a process model to guide materials development, functional requirements definition and implementation activities
- Employed a train-the-trainer approach. Users better adopted those portions of the processes and system "taught" by peers
 - Disseminated regular communications such as newsletters, posters, etc. to keep users informed
 - Acknowledged and addressed all user concerns and questions to ensure ongoing user involvement and buy-in as process redesign continues

Lessons Learned

 Failing to fully involve end users in process redesign led to a lower level of initial user adoption of the new processes and supporting technology

Implications for BPMM/STD PAM

DSTDP can learn from the experience of the American Red Cross, as it is conducting similar initiatives: process modeling, functional requirements definition, process redesign and implementation support.

- Continue to solicit input from state and local health departments, since the NBS and STD PAM could potentially be used by any of the 65 projects. Although a sample may be adequate for participation, it is vital that a full range of grantees are represented, with varying skills, capabilities and current processes.
- 2) Ensure input from users of all levels. As the BPMM initiative is currently in its earlier stages, stakeholder participation has been primarily with supervisors and program managers. These stakeholders should be engaged on an ongoing basis, but their input should be requested on how to share this information with a deeper cross-section of participants.
 - In addition, project areas should ensure input from end users, the staff who will be conducting daily work on the STD PAM. Collaborative design not only informs the development process, but it also develops buy-in. Just as DSTDP should include state and local health departments in their development and implementation activities, projects should incorporate feedback from end users.
- 3) Disseminate consistent communication about the process modeling initiative, as well as the development and implementation of the STD PAM. Regular communications will ensure that expectations are congruent with actual activities, and will allow projects to become involved to the level they desire.
- 4) Create a system to acknowledge user concerns, comments, questions, suggestions, to ensure that stakeholders feel that their input is valued. For the BPMM, participants should continue to receive newsletters, calls and invitations to review materials. They should be polled on a regular basis to identify any further communication needs and to ensure that they feel their input is reflected within the project materials and activities.

For STD PAM development, DTSDP is sponsoring regular phone calls with a workgroup of project representatives and disseminating summary documents. In addition, the NEDSS development team has implemented a structured change control process with a policy board to review and act on change requests. Users enter change requests via a centralized help desk.

BPMM Literature Review

Requests are identified as product defects or enhancements. Product defects are routed to the developers for remediation, and enhancements are entered into a data-base for review and prioritization. Users are notified of the status of their request.

The CDC and developers have also considered and should continue to consider other activities, such as question and answer databases, list serves, phone logs of user comments, etc. DSTDP should document and communicate how user comments will be received, acknowledged, and acted upon for the STD PAM and NBS so that users are familiar with the process and gain feedback on their input. In many cases, continued user involvement hinges on the responsiveness to their most recent concern.

Source

CGEY Knowledge Repository; Jennifer Lachance.

Case Studies on Technology Development

Continuity of Care Record

Goal

Collaboratively develop an electronic continuity of care record. Participating organizations (provider groups and technology associations) were tasked with developing a core set of patient information, to be shared between clinicians as a patient transfers to a new provider. Core data elements include allergies, diagnoses, medications, procedures, referrals and recommendations for care. The sharing of consistent information improves safety, quality, and efficiency and potentially decreases the cost of care. The record can be sent as HL7 or as an e-mail. A printout can be produced as well.

Leading Practices

- Built application with vendor neutral technology. Platform built in, but not limited to, XML
- Allowed for multiple methods of communication between providers. Allowed for HL7 messaging, secure e-mail or print out
- Identified core data set with diverse stakeholder group. Involved providers, associations and technology group to ensure buy-in
- Developed plans to involve wider stakeholder groups to increase participations (state and local health departments, federal agencies, other providers)

Lessons Learned

- Identifying short and mid range implementation goals facilitates long term success. For example the continuity of care record (CCR) is only one component of a full electronic health record (EHR). However, the timeline for a full EHR will be long. The CCR demonstrates success and shows early value to users.
- User adoption rates are much higher if the benefits of adoption can be proven
- Involving not only a large group of stakeholders, but a broad group of stakeholders eases implementation
- Phasing in an implementation helps ensure a higher level of adoption than a "big bang" approach

Implications for BPMM/ STD PAM

Similar to the continuity of care record initiative, the goal of the NBS/STD PAM development is to improve quality of care and efficiency by enabling the integration of data, to be shared among stakeholders. Consequently, the NBS/STD PAM initiative must also identify a standard core set of data to be shared across a broad group of stakeholders, address the security of transferring information across providers, and solidify a phased implementation plan.

- 1) Incorporate a broad group to develop and/or solidify standardized data elements. DSTDP can develop straw model documents internally, and then disseminate them to an external group for input and revision or include external stakeholders in the initial draft development. Logistically, it may be easier to conduct the first round of work internally. However, incorporating stakeholders early will help secure buy-in and participation. Buy-in is vital, since States will be responsible for championing these definitions and elements with their local health departments. Moreover, without the ability to enact legislation, CDC/projects must rely on voluntary adoption of standardized elements and definitions.
- 2) Consider whether a phased introduction of the changes would help with user adoption. Development and implementation can be phased by functionality (Prioritize functional and implement core requirements first) or by project area (Implement STD PAM with pilot sites, as opposed to all projects using the NBS, to identify problems and update as needed prior to full implementation). CDC should publish and communicate the release plan so that users know what to expect at different points in the process.
- 3) Ensure flexibility of functionality and technology. Projects have varying levels of skills and infrastructure. It is critical that manual processes, and e-mail correspondence continue to be supported in addition to messaging. In addition, a platform that allows for integration with external systems will be vital.
- 4) Identify and communicate proven benefits. As staff members are shown how the changes will help improve their work, they are more and more likely to embrace the changes. DSTDP should engage key stakeholders in developing this "proof" of benefits. A high level cost-benefit matrix by user group should be created and communicated.

Healthcare Informatics, October 2003. "The Continuity of Care Record: Organizations unit to create a portable, electronic record for use at transfer points in patients' care." Tessier, Claudia, and C. Peter Waegemann.

University Physicians Group

Goal

Partner with vendors, as opposed to employing usual contracting arrangements, to develop technology solutions. University Physicians Group (UPG) sought to develop an electronic ambulatory medical record and a tool for automating medical record coding to improve reimbursement and staff efficiency.

Leading Practices

- Involved end users (physicians) in development, directly with the vendor and solicited ongoing feedback
- Disseminated accurate communication, with continual and open dialogue, to maintain clear expectations and involve stakeholders
- Planned and managed end users' time responsibly
- Create integrated relationship between vendors, UPG and end users, instead of standard contractor arrangement
- Implemented technology solutions that were congruent with business objectives

Lessons Learned

- Discussing improvement possibilities and how to better leverage the system was more effective than identifying product inadequacies. Stakeholder derived answers as opposed to focusing on problems
- Developing direct communication between physicians and vendors improved the product, created physician buy-in and helped the vendor understand the users' ultimate goals and vision for the product
- Co-developing with the vendor allowed for better transfer of information from the vendor to staff, since staff members were involved in every step of the process
- Creating a high level of involvement between the end users and the vendor (rather than having the IT group as a go-between) was an effective use of time and communication mechanism
- Choosing a vendor that can support business process changes along with technology implementation is vital to creating change at the end user level

Implications for BPMM/ STD PAM

Like the UPG initiative, the end product of the NBS/STD PAM initiatives must be adopted by end users. In addition, a variety of stakeholders are involved in the development: vendors, the CDC and the state and local health departments. Therefore, there are lessons to be learned from the UPG initiative.

1) Continue to include regular end user input and consider direct communication between the vendors and end users, including state health departments, local health departments, physicians, nurses and managed care companies. Because physician and nurse adoption of the system will be paramount to success, it is vital that a sample of end users be included in development and implementation, potentially as part of a focus group, or working group.

Input can also be partially facilitated by regular, accurate communications and informal communications. Maintaining an open dialogue with all stakeholders is a key priority for success of all technology development.

- Continue to consider business objectives, and ensure that business process design changes are conducted along with technology. Ensure that process changes are supported during implementation, either by a vendor or by DSTDP.
- 3) Carefully manage stakeholder time requirements and clearly communicate them. Regular calls, meetings and input are significantly more overwhelming if they are unexpected.
- 4) Continue to frame conversations and discussions in a positive light. This not only provides better insight for development, it also creates buy-in, as stakeholders become part of the solution.

Healthcare Informatics, October 2003. "Co-piloting to Success: Clinical and financial partnerships let a physicians group concentrate on its strengths." George, Chris.

Patient Safety Institute

Goal

Develop a medical exchange network for patient data. The Patient Safety Institute (PSI) supported a network of hospital, physician and patient leaders in the development of "network, architecture, communication standards and protocols, electronic data availability, an acceptable patient identifier, and a national focus and design." The first development efforts have begun in Delaware.

Leading Practices

- Developed technology structure in tandem with and organizational structure
- Identified one body to oversee policies and specifications (interface definitions, connectivity models)
- Developed a formal collaborative national framework to help eliminate isolation of groups. Also ensured that, "communities must retain local control, have a voice in national policy, and be able to select their own vendors, technology, participants, and priorities"
- Created technology that was flexible for stakeholders of all levels of technical sophistication
- Identified governance structure including representation of patients, doctors and hospitals

Lessons Learned

 Cultivating a new system or technology that is not "artificially imposed" is critical to user adoption

- Identifying a working model for governance, organization, and operations across stakeholders is often the most difficult requirement
- Identifying standards early in the initiative is vital to adoption, "For any communication network to become effective, there must be agreement on the basic rules for connectivity, operating protocols, and policies"
- Incenting end users (in this case, physicians) to change their process requires proof of the return for their effort, such as access to the data they have have submitted
- Open architecture and scalability are vital, since many stakeholders cannot change their existing technology to accommodate new systems

Implications for BPMM/ STD PAM

Similar to PSI's experience, the development of a clear governance organization will be critical to the success of the BPMM initiative. In addition, designing this governance structure to ensure collaboration across all groups and types of stakeholder, while a challenge, is important to user buy-in and feeling of ownership.

Once a governance organization, as well as a communication network, has been developed to help ensure collaboration, the concept of "cultivating" new processes (as opposed to artificially imposing them) will be more transparent to users.

- Develop the STD PAM in conjunction with the BPMM. The collaborative initiative gives DSTDP a clear way to show stakeholders a return on their time investment.
- 2) Focus on identifying functionality that will help incent stakeholders to buy in to and adopt the BPMM and STD PAM. Providing benefit to clinicians early in development by allowing them to report on-line, access their cases on-line and receive guidelines/information on-line will accelerate adoption.
- 3) Consider organizational structure and governance early in the initiative, and encourage projects to do so as well. Include input from various stakeholders and end users.
- 4) Develop technology that is flexible and inexpensive. Many projects will not be able to afford significantly altering their technology and infrastructure to accommodate a new system. Also ensure states comprehend the scope and cost of change required. The contractor currently conducts a technology assessment with states piloting the NBS, with extensive focus on hardware, architecture and security. Helping states solidify costs associated with architecture and implementation choices would facilitate planning.

Healthcare Informatics, October 2003. "Clinical-Information Connectivity Nationwide: Healthcare can use the model of success frontiered by banks." Walker, Johnny.

Case Studies on Implementation

Hawaii Department of Health

Goal

Analyze the data quality and level of participation between a new electronic laboratory reporting system versus the existing manual, paper laboratory reporting method.

Leading Practices

- Tested electronic processes prior to full system adoption to ensure that all notifications were received
- Maximized impact by identifying early targets for greatest benefit. Initial labs involved in the process were those with the largest volume

Lessons Learned

- Developing the personnel to implement changes is a significant cost
- Transitioning to automated reporting met minimal user rejection because it relieved users of active participation the reporting process (as reports were automatically submitted for them)
- Reporting of extraneous records was one of the most problematic issues; this
 was compounded by the complicated coding schemes in use at the
 laboratories
- Implementing automated reporting systems helps facilitate the adoption of messaging standards and standardized coding schemes
- Simultaneously conducting manual and electronic processes for a limited period of time helped ease the transition while testing the new system for any gaps

Implications for BPMM/ STD PAM

Since projects are transitioning from manual to electronic processes, parallels can be drawn between Hawaii's move from manual to electronic reporting of lab results

1) Allow users to test the "future-state" processes against their current processes, prior to full implementation of the new future state will help with

user adoption and transition. Similar to Hawaii's experience, it will also help test the new processes for any gaps.

- Identify personal needs prior to implementation. Projects are unclear of resource and training needs for the STD PAM/NBS implementation. Giving resource analyses and training support to projects will help them plan and implement.
- 3) Ensure initial functionality reduces work of staff. Technology can results in more, as opposed to less work. This may be the case for local health departments who currently send information to the state for entry. It is important to streamline processes in order to ensure adoption.

Source

JAMA, November 17, 1999. "Statewide System of Electronic Notifiable Disease Reporting From Clinical Laboratories: Comparing Automated Reporting With Conventional Methods." Effler, Paul, et al.

California Healthcare Market

Goal

Identify technology investments that would help improve the overall functioning of the diverse healthcare market in California. Researchers examined technology initiatives conducted by payors, providers, hospitals and associations in California to identify technology investments that improved quality of care, increased efficiency of operations and decreased health provision costs.

Leading Practices

- Identified mandatory data collection and public disclosure of findings as key elements in across-the-board reporting
- Incorporated a financial incentive for automating hospital processes, by rewarding hospital for improving patient safety
- Automated data collection at the point of care

Lessons Learned

- Incorporating business process design with technology development initiatives is critical to successful implementation
- Employing financial incentives helps adoption of technology and leading practice process changes
- Automating collection (business intelligence such as alerts, pathways) at the point of data collection facilitates improvements without significant user effort
- Conducting training at all levels (user through leadership) is vital to creating the culture necessary for adoption

 Standardizing data elements and automating processes appears to result in improved efficiency and quality of care

Implications for BPMM/ STD PAM

Like the California initiative, DSTDP and stakeholders must identify common data elements in preparation for implementation of the NBS/STD PAM. In addition, projects must be incented to use the system.

- Continue offering financial incentives. CDC is already offering significant incentive by developing and supporting the implementation of the NBS and through the Cooperative Agreement. This must be continued or it is unlikely that projects will adopt the standards being defined.
- Automate best practice to the extent possible. Consider developing functionality that guides the entry of information via alerts and pathways. This will decrease the extent of training and materials needed, and result in improved practice.
- 3) To the extent possible, mandate data collection and information disclosure protocols. While DSTDP cannot mandate actions for the project areas, data elements can be collaboratively defined and supported through CDC activities.

Source

Healthcare Informatics, October 2003. "A Boost to Service and Quality: California addresses the ills of healthcare with selective technology investments." Boland, Peter, et al.

Hurdle the Cross-Functional Barriers to Strategic Change

Goal

Discuss an organization's experience in trying to affect business process changes to support a technology implementation. Hutt et al cite that "The process of converting functionally-based competencies into collective technology-market knowledge lies at the core of successful innovation." They identify enablers and barriers to creating effective change within an organization.

Leading Practices

 Create a vision for the group with which all stakeholders can identify Encourage people to consider their role in the change

- Establish broad, general goals. Encourage experimentation, and demonstrate flexibility throughout the process
- Initiate both formal and informal communications from leadership
- Involve key stakeholders from the start. Resources will be very concerned about who "owns" a strategic initiative should be involved early to quell fears and create ownership
- Locate the team centrally within the rest of the organization to ensure interaction with a cross-section of the organization, as opposed to isolating the initiative
- Focus closely on groups' fears of change. Managers should identify the implications for change for each stakeholder group, identify areas of support and then disseminate communications early in the process
- Include a "growing network of participants." An increase in personal communications across groups will often correspond with a decrease in barriers between groups
- Engage different groups in activities together. Achieve a common vision, establish communication channels, and help all feel involved and vested in the project
- Build a case for change, and identify "pockets of commitment." Build informal communication networks, empower champions, and manage coalitions

Lessons Learned

- It is important that no one group emerges as an especially strong proponent
 of the initiative, as this may be interpreted by other groups as a threat to their
 own stake in the initiative. Similarly, if one group does feel a strong alliance
 to the initiative it may also increase their feeling of needing to control the
 project
- Resources tend to be resistant to any change that they see threatening their area of influence. "A threat to a group's domain tends to strengthen members' identification with the group"
- Initiatives that couple process changes and technology updates may find that resources are more concerned about their potential loss of control or change to their "known" process than the technology itself
- Each resource will interpret strategic change differently, depending on their point of view within the organization. This means that different groups will have different understandings of the change and what is happening, and whether it is a threat or opportunity. These different biases will affect the group's ability to effectively collaborate, and collaboration is the key to successfully implementing change
- Groups, especially group leaders, need to work to a joint model as much as possible. "Until resolved, divergent perceptions can delay action, increase conflict, and cause defensiveness"
- Every group within an organization will have its own "language," and may affect how other groups understand them. The development of a shared

- language and understanding is a challenge but is key to the initiative's success
- All groups need to feel that their input is valued equally, particularly by the
 group "controlling" the output of the initiative (in the case of BPMM, this group
 is DSTDP at CDC). All groups need to feel "embraced" as full members.
 Communication is a key to ensuring this; as such, informal communications
 will be just as important as formal communications since they often
 encourage "cross-pollination" between groups

Implications for BPMM/ STD PAM

DSTDP looks to collaboratively implement large changes in state and local health departments throughout the country. Although Hutt et al focus on a specific company as the "organization," DSTDP could in turn apply the same principles to a broader definition of an organization to include the entire STD Prevention community, from local health departments and clinics to CDC. Each of these would in turn be a "group" within the organization.

- 1) Lead change by communicating commitment from DSTDP and CDC to the project.
- 2) Encourage collaboration by creating a culture of flexibility and systems to incorporate input from stakeholders.
- 3) Identify project leaders from a sample of state and local health departments, but ensure those not directly involved are informed and can provide feedback through newsletters and surveys so that they feel ownership.
- 4) Create clear, regular communications about both process and technology changes for all stakeholders and proactively disseminate information to create realistic, congruent expectations. Create varying communications with consistent messages to appeal to different stakeholder groups for both the BPMM and the STD PAM initiatives. For example, provide newsletters with summary information, documents with more comprehensive information, training materials, handouts etc., to appeal to different stakeholders.
 - In addition, ensure that messages are consistent between the NEDSS, STD PAM and BPMM initiatives. Create talking points and summaries that can be shared across projects. Stakeholders will be encouraged to participate by a clear project timeline and outline.
- 5) Phase implementation. First define and disseminate broad goals and then as support builds, specify planning with a sample of to test detailed plans. Rotate reviews and pilot projects among stakeholders to involve multiple groups.

6) Remain flexible during planning and implementation to address concerns of stakeholders of varying levels of participation.

Source

Sloan Management Review, Spring 1995. "Hurdle the Cross-Functional Barriers to Strategic Change." Hutt, Michael D., Beth A. Walker, and Gary L. Franckwick.

Conclusion

The Business Process Management Methodology (BPMM) initiative, coupled with development of the new STD PAM, represents an opportunity for significant change the work of STD Prevention. While many stakeholders, from those in DSTDP to those in state and local health departments and clinics, will see this as an opportunity with innumerable positive possibilities, it is critical to learn from initiatives at other organizations to ensure that stakeholders maintain that view as changes occur.

Although the articles examine various initiatives within the government, for profit and non-profit arenas, similar themes emerge. Key enablers to successful initiatives include: participation of stakeholders, consultation with end users, flexible development, regular communication, phased implementation, commitment from leadership, flexible technology and collaborative design. DSTDP should seek to promote these leading practices via the BPMM initiative and STD PAM development. Enacting these leading practices will not only promote success on these specific initiatives, but will have lasting effects on relationships with grantees and the operations of the organization, leading to success on future initiatives as well.