

## Program Design:

### A Guide from the Medication Optimization Technologies Toolkit

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#### Description

A successful medication optimization technology program depends on a good program design and planning process. This requires an understanding of the strengths and limitations of a program and how to utilize financial, technological and human resource supports to ensure timely implementation and goal achievement.

#### Audience

For organizations that are in the early stages of designing a medication optimization technology program, and are conducting a review of appropriate technologies that can support the goals of the intervention.

#### 1 Identify Barriers and Drivers

*What are the strengths of the program, and what resources will be required to address the limitations and ensure program success?*

#### 2 Plan Individual Workstream Components

*What information and knowledge will be required to ensure success for those responsible for and involved with implementation?*

#### 3 Plan System-level Implementation

*How can the individual resource, program, and management requirements be integrated to support the program's systematic uptake and effective implementation across the organization?*

## 1 Identify Barriers and Drivers

An effective medication optimization technology program requires a thorough understanding of the leading drivers and barriers to program implementation at the individual, organizational, and system levels, and includes the identification of specific financial, human, and technical actions required for successful implementation. Key issues to be reviewed include:

### **Program target population and technology:**

Identify target population and opportunities for technology-enabled care to meet that population's medication management needs and impact outcomes.

Evaluate the technology options and evidence of the feasibility of available functions and features to meet the medication optimization technology program's goals.

Evaluate the usability and acceptability of appropriate medication optimization technologies among patients, informal caregivers, and formal caregivers.

Develop an understanding of how the population will be contacted, enrolled and engaged in the medication optimization technology program.

### **Organizational preparation to effectively support implementation:**

Set direction through alignment of the organizational mission and vision with the performance improvement strategy to optimize medication use.

Conduct a SWOT analysis of the organizational capacity to successfully support program implementation.

Assess any limitations in the human, financial, and technical resource capacity and prioritize required actions accordingly.

Develop internal and external strategic options to put required resources in place prior to implementation.

### **Program capacity to support current medication optimization practices:**

Review the standard workflow approach and potential modifications required with the introduction of technology into patient medication use practices.

Develop a scope of work (SOW) that defines desired outcomes, timeframe, milestones, measurable goals, and work activities.

Implement leadership systems and workforce requirements for program implementation and management.

**Identification of potential internal and external issues that may advance, delay or hinder progress:**

Plan program evaluation and core performance metrics and how decisions will be made in response to reporting on the effectiveness and efficacy in the medication optimization process.

Anticipate and continuously monitor disruptive forces to the program's successful operation, including workforce resistance, health literacy of patients, reimbursement, and enabling technical standards, laws and regulations.

Be flexible and prepared to address other issues that are potentially disruptive, such as: technology updates, training and education, customer support, strategic communications, and regulatory compliance.

**2 Plan Individual Workstream Components**

Devise a stepped process to support those responsible for and involved with the implementation of technologies into the medication optimization program. Specific steps or workstreams for achieving targeted outcomes include Program Planning, Technology Management, Patient Management, Clinical Management, Financial Management, Administration, Marketing, and Evaluation & Performance Improvement. For more information on workstreams and specific tools within each area, please review the ADOPT Toolkit website.

**Program Planning**

Program Design – Design the program to reach goals and create the desired change – all within the context of patient needs; current care practices and attitudes; the organization's vision and mission; and broader social, economic, political, legal, and technological forces.

Change Management – Plan to help staff and others that are impacted by the introduction of technologies

into the program to acquire the knowledge and ability to implement enabling organizational changes. This may include plans for assessing readiness for change, gaining support and addressing resistance to change, defining training that is required, and defining changes to staff roles and responsibilities.

## **Technology Management**

Technology Review – Conduct an exploratory review of available technology approaches to optimize medication use.

Technology Selection – Specify technology requirements, evaluate vendors that could meet those requirements, and make the final technology selection.

Technology Logistics – Determine how technology will be handled and shipped; includes transportation, inventory, warehousing, packaging, and refurbishing requirements, where appropriate.

## **Financial Management**

Budgeting – Quantify and justify the resources that will be required to ensure program success.

ROI Analysis – Develop a plan for evaluating return on investment of the program, including business case development and program ROI projections.

## **Patient Management**

Patient Selection – Clarify which patients will be targeted for program inclusion. Specify inclusion/exclusion criteria.

Recruitment/Enrollment – Develop a plan for how targeted patients will be identified and enrolled, including data sources and methods.

Patient Engagement – Develop a plan for translating initial enrollment commitment into full engagement in the program.

Program Discharge – Develop a plan for ending the intervention for patients.

## **Clinical Management**

Provider Engagement – Develop a plan for engaging providers in relevant aspects of the program, from defining clinical protocols to aiding in patient recruitment and engagement.

Clinical Processes – Identify the process of care supported by the use of technologies in optimizing medication use, including what patient information will be collected; how that information will be presented and shared and how/when clinicians will follow-up with patients.

### **Administration**

Contracting – Plan for establishing the fundamental agreements that are required to create and maintain the program. Include vendor agreements and agreements between other stakeholders.

Compliance – Clarify rules, regulations, care standards, laws, and policies, and verify that stakeholders understand and comply. Include patient protections and confidentiality, accreditations, and certifications.

### **Marketing**

Program Promotion – Plan for how communication resources will be utilized to raise awareness of and interest in the program. Specify marketing goals and target audiences, as well as communications strategies and tactics.

Customer Support – Develop a communications strategy to support a stakeholder after they have agreed to be involved with the program, including providing ongoing support throughout the process.

### **Evaluation and Performance Improvement**

Plan for what will be measured and decisions that will be made in response to program evaluations. Specify evaluation goals and outcome measures, data sources, instruments, and measurement frequency and processes. Measurement focus areas include:

- **Care Effectiveness:** Utilization (e.g., Physician office visits; preventable hospital utilization change including readmissions and ED admissions; actual vs. expected number of patients approached and enrolled; adherence and persistence) and clinical outcomes (e.g., vital signs, falls, HbA1C, and other care effectiveness indicators).
- **Cost of Care:** Financial analysis of benefits vs. costs, ROI analysis.
- **Care Experience:** Patient, caregiver, and clinician satisfaction with the technology, care process, and other program aspects, quality of life, and patient activation and engagement.

### 3 Plan System-level Implementation

Promote the systematic uptake of the program through applying systems models to identify the resource, program, and management requirements for success and how they may be integrated to support the program's rollout and effective implementation across the organization. Representative system level implementation models include:

Logic Model - a visual representation of implementation that facilitates thinking, planning, and communications through presenting relationships among the resources to outcomes (both short- and long-term) with program activities/processes.

Six Sigma - a disciplined, data-driven approach and methodology that achieves comprehensive deployment by aligning resources with objectives and strategies.

Plan-Do-Study-Act - a model that helps teams think systematically about the individual elements, responsibilities, and timing for introducing change-related improvements.