VI. STAKEHOLDER INPUT ON OPPORTUNITIES AND CHALLENGES

Key Informant Interviews

To inform this process and complement the targeted scan, interviews were conducted with stakeholders to gain insights and elicit recommendations. These informative sessions resulted in six core themes related to opportunities and challenges.

1. Patient engagement is a major untapped opportunity, with the largest potential impact among marginalized communities.

For most of the stakeholders interviewed, the opportunity for patient engagement supported by health IT was promising, but virtually untouched. As one participant stated, “Bringing patients into the digital health world is an awesome yet thoroughly underutilized capability.” Several discussed the focus on the changing needs of delivery systems to manage the health of populations (particularly vulnerable subgroups), and the challenges related to those changes. Concerns about the capacity for change in a patient-centric manner were raised, with particular attention to “the abysmal state of health care communication,” as stated by one participant. Along with this assessment, the idea that engagement “changes the equation of empowerment” was an attractive benefit achieved by addressing the “need to make patients digital equals.” The shifting profile of the care team (which often includes family members) was also reflected in this theme, captured in the statement, “The intersection of health care and caregivers is miserable. It’s no one’s job and is amazingly difficult,” and, “It’s imperative that we figure out how to take patient-generated data and roll it up in a way that’s valuable for the care team.”

Several informants stressed the opportunity for health IT to reach populations that are often marginalized in the current health care system. Public health leaders envision wide-scale use of mobile phone technology to connect and engage patients and families. The possibilities offered with remote technologies become a tangible way to bring the system to the patient and rely less on the traditional model of in-person consultations. Experts in public health speak of experience with mobile phones for emergency services and information exchange—a valuable method of reaching varied communities. Community and home health professionals view the integration of technology and care as providing an untapped opportunity to improve the health of populations challenged by the restricted, and often inaccessible, nature of the existing system of care.

2. Health IT design must be user-centric, starting from the needs and preferences of patients and families.

Leveraging the capacity of technology to meet patient needs was of paramount importance to most interviewees. With the rapid influx of devices and apps, many expressed concern that the direction of innovation and tool development does not always match the priorities of patients and their families. Limits in how data are shared and the lack of alignment between commercial products and user needs were mentioned as barriers. “The state of the art for the patient to interface with electronic health information is horrible. It is an afterthought in EHR design.” Another informant noted, “Vendors need to focus on patient/consumer as customer. Standards exist but are not applied.” Many highlighted the issue that recommendations to reshape these priorities will need to consider those less likely to adopt technologies for health and those challenged by literacy barriers. The risk that patients may not understand the health information presented via health IT tools will be reduced by thoughtful attention to literacy standards. It was
also recognized that targeting marginalized communities offers enormous potential for impact when the technology becomes accessible, affordable and trustworthy.

3. **There is limited evidence to evaluate effectiveness of tools.**

“Determining what works is a high priority to move the engagement implementation agenda forward,” is how one stakeholder expressed the general idea of cataloging evidence for the benefit of all. Others noted that experience exists, but it remains localized and not widely shared and disseminated. As one interviewee stated, “Those who have implemented patient portals and other tools successfully into the workflow and have succeeded in engaging patients have a tremendous learning experience to share.”

Translational research is needed to help guide a more cohesive and multidisciplinary approach to incorporating tools for patient engagement. “Making this an expected part of the care process will require collaboration among several stakeholder groups, and understanding what works will be of great benefit.” A recent report published by the IMS Institute for Healthcare Informatics summarizes an assessment conducted on 43,000 health apps, finding that the vast majority have limited functionality or evidence of value in improving outcomes or the provision of health care, and that few are designed for those who need them most.27 In addition to the idea of “learning what works,” many agreed that leaders who will influence integrating technology and patient care are a key audience to include in any strategy of shared learning. This sentiment is captured here as, “We need to make the ‘aha moment’ happen or the majority of health care leaders won’t make it to the savings altar.”

4. **Patient-engagement health IT tools need to be integrated with the health care system.**

“The current problem with health IT is that is has been designed to facilitate the existing medical system, which is not patient and family-centric. We are replicating the same problems with technology that we had without technology.” This quote captures a variety of concerns about patient engagement tools because of a lack of effective integration and failure to acknowledge the patient as the best integrator of data and information. Successful integration of health IT that motivates patient engagement will need to be supported by standards that advance effective interoperability, validate content and ensure usability, combined with a receptive health care setting, where workflow models align with organizational objectives and reimbursement models.

Many commented on the need for a system infrastructure that is receptive to products, tools and services that will provide value to patients and their care teams. “Health system navigation and providing the right message at the right time would bring tremendous value to patients and families,” was one comment, underscoring the need for the value proposition to be well defined and part of overall planning for implementation of technology. Many believed the current lack of emphasis on integration, interoperability and connectivity (specifically, to patient-generated data) could become major obstacles without universal understanding of their impact on engagement. Visualizing need at all levels of patient interaction with the health care system and creating roadmaps that lead to the goal of seamless integration for all health data was a frequent theme. “Change the infrastructure and the market will respond.”

Several interviewees remarked on the pace at which creative technology tools are being developed, in contrast to the pace at which the health care system is embracing and adopting them. The “execution problem,” as one interviewee stated, “is where the most help is needed, and it shouldn’t happen in a vacuum. Innovation will require both creativity and successful execution
in order for all of us to learn what works and how best we forge ahead in the best interest of patients and providers.”

5. **Consumer trust needs to be fostered.**

Increasing public awareness of health IT has resulted in both enthusiasm and concern. Reluctance to use technology to support health and to connect with the health care system was recognized by many as an important issue to consider, in both policy development and implementation strategies. The Health Insurance Portability and Accountability Act of 1996 (HIPAA) gives patients the right to receive copies of their health information upon request. Providers are expected to ensure that communication respects patient preferences and minimizes risk to the privacy and security of patient health information. Several surveys have identified the apprehension of consumers with regard to privacy and security of health data, often as it relates to issues of access and control. As one patient advocate commented, “Using technology to respond to and reflect the priorities of patients will strengthen this need for trust and interest.” Many stakeholders believe that by building on policy and regulatory efforts to protect consumer privacy and security of health data with enhanced public awareness campaigns and effective implementation, consumer confidence and expectations will align with the vision of health IT as a powerful facilitator of engagement.

6. **Leadership and collaboration are needed to create impact.**

Belief in the value of patient and family engagement is growing; initiatives are taking place across the public, private and nonprofit sectors. Our interview process included key stakeholders from ONC, NeHC, the Patient Centered Outcomes Research Institute (PCORI), the National Partnership for Women and Families, the Institute for Patient and Family Centered Care and the Beryl Institute (refer to Appendix C).

However, the need for leadership and coordinated collaboration continues. “The proliferation of activities and initiatives in patient engagement is hard to miss, but how this movement ends up and its potential for true success and real change is the story left to be told,” one individual stated. Interviewees raised concerns about the cultural hurdles and the necessity to disrupt existing paradigms of care delivery. “In the abstract, patient engagement sounds wonderful; in the trenches, it’s robbing physicians of control and it’s the opposite of what they want (compliance and adherence).” In addition to that sentiment, it was also common to hear about the disconnect between provider and patient, described by one participant as, “the need to bridge these two worlds—Provider: ‘Patients don’t do what they’re told.’ Patient: ‘Providers don’t have time for what’s important to me.’ ”

Although efforts are underway to advance patient engagement, many participants noted the time-limited opportunity for federal incentives and the need to nurture the seeds that were planted. The general consensus among those interviewed is that much of what currently exists in health IT and patient engagement will need an organized and catalyzing infusion of leadership and investment to allow the limited amount of implementation to take hold, achieve scale and have sustainable impact.
Consumer Focus Group Testing

Following the targeted literature scan and key informant interviews, recommendation areas began to take shape. Prior to the task-force meeting, we conducted two consumer focus groups to explore consumer priorities regarding health IT and to better understand how opportunities and challenges align with consumer goals and concerns.

Each focus group included nine participants with a chronic health condition (i.e., diabetes, hypertension or other condition for which they take medications and routinely see a doctor) and access to a high-speed Internet connection or smartphone. The groups were differentiated by the participant’s level of technology adoption (high or low) and categorized as “e-Embracers” or “e-Tentatives.”

The discussion guide focused on four areas:

1. The types of consumer protection standards needed to facilitate broader adoption of health IT tools for patients.
2. How health IT tools can help motivate patient engagement in health and the preferred functions of health IT.
3. How consumers view the value of health IT, compared with technologies they use in other life domains (e.g., banking, shopping).
4. Consumers’ priorities related to access, efficiency and affordability of health IT services.

In planning this step of the project, we expected to see certain differences between the e-Embracers and the e-Tentatives. Although this was the case for some issues, the e-Tentative group participants were more experienced with technology than expected and results from the two groups were fairly similar across several domains. The contrast was most evident in the areas of usability and trust, with the e-Tentative group having more concerns about ease and simplicity of use, potential misuse of data and privacy. The e-Embracers expressed an inherent trust of technology and perceived its potential benefits of convenience and efficiency as outweighing the risks and concerns about data exposure.

Concerns

Both groups expressed concerns associated with the use of data and health IT applications. The recent problems associated with the national rollout of www.healthcare.gov were mentioned, and several participants had experienced patient portals that were challenging to navigate, difficult to use and not integrated with all their providers. It was also clear that although several participants had first-hand experience with these portals, the other functions of health IT were perceived as possible but had not yet been experienced. Participants mentioned a number of examples where they felt concern about the unauthorized use of their data. Most issues were related to the potential lack of control and how their data might be used to impact employment decisions, deny insurance coverage or direct marketing efforts, as captured in the following quotes:

“Once they find out your medical history, a life insurance company—whoever gets their hands on that data—can make your life extremely difficult.”

“If you are applying for a job that has any kind of physical aspect and the potential employer finds out that you have knee issues and that is the reason you don’t get employed, that might be a problem.”
“Stealing information... is my biggest fear.”

Worry about data integrity, errors and manipulation were also mentioned as potential problems associated with health IT. Most were in favor of personal access of data control (similar to the Facebook model, where permissions are granted) to counter these concerns. “If you got five doors and behind those five doors are different parts of your body, you say doctor so-and-so can look at this door for this amount of time and that door closes. Exceptions are the people (identified to) have access, but I have control over who has access,” was how one participant described it.

A second category of concern was related to the use of applications. Usability was a big issue; many participants discussed difficult and frustrating experiences with portals or related patient health IT tools. Most comments stressed the need for ease and simplicity, similar to when banking or shopping on line. Several mentioned the fear of information overload, lack of integration across providers and settings and disorganized data. The concept that health IT apps would be ineffective and add time and complexity was a worry illustrated by many participants’ personal examples.

Benefit and Value

The discussion about benefits and value was filled with concepts related to participant expectations of well-designed health IT. Given the option to rate several functions of health IT, both groups indicated that access to health records and the ability for providers to interact electronically with the patient as the priority over other functions including chronic illness support, health trackers, and social/learning portals. In addition to convenient, easy access to accurate data and to information that can be communicated and shared across patients, providers and families, patient safety and improved care were part of the vision many described, including specific examples of benefit:

- Fewer mistakes with drug interactions and miscommunications.
- More accurate and comprehensive knowledge sharing between patient and providers.
- Increased efficiency and accuracy in monitoring and managing chronic illness at home and in the community.
- More opportunities to improve individual care by pooling data on similar patients and learning from those shared data.
- Greater convenience and efficiency by providing options for virtual visits and access to a wider breadth of clinical expertise and knowledge.
- Far less repeating and remembering of health data for every clinical visit.
- Increased satisfaction and better patient experience of care.

To illustrate some of these themes, here are some compelling comments from focus groups:

“I am so tired of giving my history and telling my story. I don’t remember my history and dosage—I don’t have space in my head and I probably get it wrong”

“I recently had an appointment with a dermatologist, but it was a video. She was out in San Diego somewhere. I was at the VA and she wrote my prescription and I went down to the pharmacy to get it. It tripped me out at first because I thought she was maybe upstairs, but she was in San Diego and that’s wonderful.”

“The patient will benefit ultimately, but the doctor will, too, as it minimizes his risk because he is more informed too.”
“I see the body as a system and I want every doctor to know everything; I think everything is connected. I would worry to not let my optometrist know that the spot on my eye is a symptom of something else that we might not even know because we have not been able to compile all the data from hundreds and thousands of people who had that spot on their eye.”

Participants were asked to suggest features of health IT that would make them more likely to use the tools; the most commonly cited was “ease of use”; familiar, customized, intuitive functions operating on universal platforms that integrate all relevant data. Participants also discussed important security characteristics, including message/data encryption and sources of information that are trustworthy and endorsed by providers.

Efficiency of technology was mentioned repeatedly as a significant driver of uptake and included remote monitoring of biometric data, virtual clinical visits, symptom tracking and connection to knowledge sources, including patients with similar conditions, clinical trials and disease-specific information.

The issue of trust was explored and similar responses were discussed in both groups. Brand familiarity and a seal of approval from a trustworthy entity were important, as reflected in this quote, “Isn’t there some kind of organization that provides certification for certain companies’ security? I feel that when I see a sign [indicating the site is secure], it gives me a level of security that I may not have otherwise.”

Several participants mentioned provider endorsement. “I trust technology because I think it is what we are coming to—that doesn’t worry me—I trust my doctors, I trust where my information is going.” The groups also agreed that insurance companies were not a trusted source; the e-Embracer group suggested the endorsement of institutions such as the National Institutes of Health (NIH) or the Centers for Disease Control and Prevention (CDC) to serve in this role.

Consumer focus-group testing was important for evaluating how core themes that evolved from key informant interviews correlated with consumer goals, concerns and preferences. Much of what we learned from this process underscored these themes and provided greater specificity to understanding the consumer perception of the value equation. The next step involved participation of a group of experts serving as a task force.

**Task Force Meeting**

A 14-member multistakeholder task force, representing consumers, health IT, delivery systems, employer/purchasers, health care providers, health informatics, public health and research (refer to Appendix B for the list of members), was convened in Washington, DC, in November 2013. The meeting had three objectives:

1. Review and critique the analysis and strategic opportunities recommended in the preliminary report.
2. Develop a framework for evaluating how health IT for patient engagement can support achievement of the Triple Aim.
3. Develop a plan for next steps in policy, research and implementation.

The task force was given a preliminary version of this report prior to the meeting and had the opportunity to critique it and reshape priorities. Consumer focus-group testing results were shared at the
meeting, with video clips highlighting testing segments. The meeting format consisted of brief presentations summarizing key points from the work to date; the majority of the meeting was spent eliciting answers to project staff questions through moderated discussions and written and posted notes.

Discussion results were summarized and analyzed by staff and incorporated into this version of the report.

A significant result of the meeting was the group’s recommendation to simplify the most relevant aspects of successful health IT-enabled patient engagement. Task force members agreed that technology tools to support engagement should save money, save time and reduce stress. These core principles were recognized as important issues for patients, providers and policy makers, and provide an overarching context for design, development, implementation and evaluation.

VII. RECOMMENDATIONS

A cohesive strategy is needed to harness the interest and enthusiasm for using health IT to support patient engagement. The following section defines the four interrelated recommendations resulting from this work:

1. Create a comprehensive statement of joint principles to advance the design, development and implementation of health IT tools that help achieve the Triple Aim.

   Empowering patients and families through health IT that is secure and tailored to meet their needs and preferences is critical. This goal is challenged by current priorities in design, development and implementation of health IT, which lack adherence to principles that place end-user priorities at the forefront. Exploring current initiatives and support for a multistakeholder approach to development, widespread dissemination and implementation of user-centric principles would offer significant benefit to patients, developers, policy makers, purchasers and providers. This recommendation includes steps to consider the content of such principles, as well as methods to establish them as widely recognized and influential.

   In addition to information security and safeguards, other areas need standards and quality oversight to provide comprehensive assurance that information shared and received is always high quality, is accessible at appropriate literacy levels, is managed by the individual and is meaningful to patients and their care teams. Leadership by organizations—for example, ONC and its health IT standards committee, the National eHealth Collaborative, the National Partnership for Women and Families and Continua Alliance—is paving the way for standards development, but implementation; expansion of concepts and principles; and harmonization are needed.

   Although pledges to Blue Button are growing, it is unclear if data made available by providers are consistent. Lack of consistency will limit the usefulness of applications and the opportunity for bidirectional data sharing. Making data useful to patients is what will turn “just another app” into a tool that can be relied on. Incorporating patient-generated health data that can be accessed by the entire care team builds a partnership toward successful care planning. A methodology for educating consumers on tools that are reliable because they meet a set of criteria will guide patients and providers around choices that might otherwise dissuade them from using the technology, or subject them to unnecessary harm or worry.
**Suggested Topics for Consumer Principles** (table format)

| **Usability**          | • Easy to use, with instructions and examples.  
|                       | • Understandable, accurate and unbiased information.  
|                       | • Attention to issues of literacy and limited English proficiency.  
|                       | • Usability for common impairment (i.e., hearing loss, vision impairments, physical limitations).  
| **Personalization and control** | • Methods for tailoring and customizing data.  
|                       | • Permit patients to manage all data and information pertinent to their health and health care.  
| **Integration**       | • Ability to communicate with the entire care team.  
|                       | • Support decisions made at home and in the community.  
|                       | • Follow patient journey over time (not provider by provider).  

**Next steps to establishing joint principles**

- Explore current initiatives and opportunities for developing standards or principles specific to health IT and engagement.
- Consider lessons learned from other initiatives, such as Choosing Wisely and the Patient Centered Primary Care Collaborative, and building on the newly released *Consumer Principles for Health and Care Planning in an Electronic Environment*, published by the Consumer Partnership for eHealth and coordinated by the National Partnership for Women and Families.
- Convene a multistakeholder effort to develop and articulate principles for user-centric design of health IT.
- Provide access in multiple languages.
- Include broad group representation from all consumer areas of expertise, including anthropology, community-based organizations, academia, marketing, product design, ethnography and agencies involved in social determinants of health.
- Promote widespread awareness among all health care stakeholders, and in conjunction with the Blue Button campaign, of technologies that allow consumers to view, download and transmit data.
- Identify and engage in opportunities to develop and leverage policies to support these joint principles.

2. **Develop and implement an evaluation framework to target investment and support consumer choice.**

Policy and innovation are moving forward, with the expectation that implementation will follow, yet questions about the value of health IT for patient engagement remain unanswered. Defining an evaluation framework is critical to understanding the benefit and value of health IT-enabled patient engagement and would be an important step in creating a national certification program to recognize high-quality products and services. A national certification program would advance the pace of implementation that is currently challenged by a lack of comparative data for selection and integration of tools.

The table below is based on task force discussion and contains a preliminary set of topics that
consider the perspectives of consumers, providers and the health care system.

### Potential Topics for Evaluating Health Information Technology for Engaging Consumers

| Consumers | • Initial use; frequency, type and longevity of use.  
|           | • Usability (easy to use, simple, customizable).  
|           | • Efficiency (saves time and money, integrates all relevant data).  
|           | • Benefits (reduces distress, enhances communication, improves health).  
|           | • Decision making (provides transparent and trustworthy information, supports better decision making).  
| Providers | • Initial use; frequency, type and longevity of use.  
|           | • Usability (easy to use, customizable, aligned with workflow).  
|           | • Efficiency (saves time, reduces waste or unnecessary care, aligns with quality measures and other requirements).  
|           | • Benefits (improves cohesion of communication, includes all pertinent data, maximizes patient/family preparation, tracks mutually agreed outcomes).  
|           | • Quality (accurate, consistent, trustworthy, reliable).  
| System impact | • Population health outcomes.  
|             | • Patient experience.  
|             | • Provider experience.  
|             | • Costs of care.  
|             | • Safety and reduction of harm.  
|             | • Productivity and efficiency.  

### Next steps to developing an evaluation framework

- Conduct a comprehensive scan to document evidence on existing tools and models for engaging patients using health IT, and assess strategies for evaluating key outcomes (i.e., improved population health, enhanced patient experience, reduced per capita health costs).
- Create metrics to allow and encourage comparative analysis of factors (i.e., access, motivational tactics, affordability, matching capacity with need, participation level, literacy, numeracy, usability and feasibility) that will increase adoption across all patient communities.
- Explore and define outcomes that address both health and engagement as distinct targets for measurement to support sustainable business models for health IT tools and services.
- Integrate metrics into policy and regulations to support alignment and harmonization of evaluation efforts and universal standards of assessment.
- Identify methods for public reporting that will promote quality improvement and provide valuable consumer information.
- Develop a highly recognized national program to certify patient engagement applications that would incorporate the evaluation framework and address privacy, security, usability, integration, connectivity and interoperability.
3. **Advance development of a unified health data integration strategy that prioritizes engagement.**

Optimizing population health, improving patient experience and promoting cost efficiency requires an infrastructure that provides real-time integration of data from different health care settings with data generated by patients. Today, health data sit in silos, which are often closed and proprietary systems with diverse formats that limit interoperability. Approaches for integrating data in a manner that is meaningful and relevant to patients should involve providers, payers and plans, and include not only information specific to clinical conditions and administrative functions, but also information that impacts a patient’s day-to-day life. Caregiver support, transportation; access to meals; daily functions; impairments that affect communication and literacy; and personal goals are examples of what should be reflected in a strategy that makes patients the priority.

As data sets grow in complexity and data sources become more diverse, integration will be even more of a challenge. Successful integration and engagement require the standards to support effective use of tools and a receptive care setting where providers endorse the tools. Standards are taking shape across the health IT industry, with coordination in select circles. Unified efforts to support these standards, as well as content validation and ways to ensure effective usability, will increase the likelihood that innovation of products and services recognizes the need for consumer motivation and incentives to drive use.

As health care settings devise health IT implementation strategies specific to patient engagement, strategies must align with the overall objectives of the institution and its provider reimbursement models, and support a delivery workflow that prioritizes health IT-enabled engagement. In addition, policies and incentives designed to advance data access and sharing between patients, providers and the system will need to consider not only EHRs and patient portals, but the myriad of data being generated by patients and the growing number of products being used by providers across the health care spectrum.

**Next steps to advance data integration that prioritizes engagement**

- Identify regulatory and policy mechanisms for influencing or setting standards for data integration and interoperability.
- Identify stakeholders key to alignment around integration—including alliances, developers and standards organizations/efforts (e.g., ONC, Markle Connecting for Health Common Framework, Health Privacy Project at Center for Democracy and Technology).
- Assess the current state of the problem (e.g., system data blocks, disparate data silos, vendor requirements, vendor understanding of related standards and legislation, data ownership, formatting standards, proprietary issues) and identify opportunities within current efforts to advance integration.
- Define a role for development of conceptual models, principles, guidelines, IT metrics, methods or infrastructural support to promote open-sourced data integration that enables data flow to fit multiple purposes.
- Identify opportunities for integration with existing efforts and frameworks that seek to harmonize and incorporate patient-reported data and influence standards for eHealth.
4. Demonstrate innovative uses of health IT for patient engagement.

There is a need for integrated health IT solutions focusing on outcomes that are relevant and important to patients. The ability for individuals to collect, track and use data to guide health management decisions is growing rapidly, yet it is disconnected from the health IT infrastructure evolving in the health care system. Efforts to create this connection would benefit from resources focused on bridging the gap between the data and information that patients want and their providers and systems of care.

Demonstrations that consider the needs and functions most valued by patients will offer the data, experience and information necessary to build knowledge and set priorities for innovation. Existing models of practical-use cases are limited, and although some offer great promise, most are challenged by barriers to long-term sustainability, lack of opportunity for test replication and competing priorities. A broad initiative that builds on lessons learned among successful-use cases would promote prospects for patient engagement via health IT and be an influential driver of advancement.

Table 3 illustrates promising IT functions for supporting patient engagement.

Next steps to increasing demonstrations of health IT-enabled patient engagement

- Identify areas that are most likely to succeed and explore opportunities for further learning, expansion and replication.
- Identify existing efforts that have potential for:
  - Achieving the Triple Aim.
  - Further developing and learning to achieve purpose/goals.
  - Collaboration across communities and stakeholders (e.g., geographic, professional, patients, payers).
  - Reaching marginalized populations.
  - Demonstrating best practices for widespread implementation.
  - Replicating in broader populations.
- Establish protocols and priorities to maximize the impact of demonstrations that will inform understanding of what works, guide development of empowering principles and feed a shared-learning community.
Opportunities for Developing and Testing New Health IT Patient Engagement Tools

1. Integrate patient-generated data, including patient-reported outcomes and goal setting, into care management, chronic disease management, self-care management and overall health, to assess the impact of patient-reported outcomes and agreed-on agendas for health and disease management. 
   *Potential targets:* People with multiple chronic conditions and behavioral healthcare needs.

2. Expand the role of analytics, evidence and outcomes data to guide choices and support tailored care that incorporates individual preferences for decision making and leads to higher engagement and decision quality. 
   *Potential targets:* Orthopedic surgeries, prostate cancer treatment, cancer screening, breast cancer treatment, cardiac interventions.

3. Support patients, families and caregivers through access to shared care plans for enhanced communication, progress tracking and transparency of care decisions. 
   *Potential targets:* Frail elderly, long-term care patients, chronic disease management.

   *Potential targets:* Neurological conditions, asthma, cardiovascular disease, diabetes, depression, heart failure, chronic pain.

NEXT STEPS

The opportunities outlined in this report represent an interdependent list of catalyzing actions toward technology-enabled patient engagement. They recognize that tools do not automatically equate to improved patient experience or engagement without policy changes that support widespread implementation, aligning reimbursement structures and provider endorsement.

To move these initiatives forward, we propose the following steps for consideration:

1. Establish a coordinated funding effort to move the recommendations in this report forward.
2. Identify nationally recognized partner organizations to take leadership roles in each initiative area and form a collaborative approach to achieving impact.
3. Establish effective and efficient ways to capitalize on existing organized efforts that relate to the initiative objectives.
4. Create an ongoing communication strategy to elicit broad support for initiatives and disseminate outcomes of the work.
5. Organize a structure of continual feedback via the task force to maintain oversight of initiatives.
SUMMARY

Opportunities to shape the expanding field of patient engagement are being considered across several sectors of the health care system. This report reflects a comprehensive assessment of these opportunities, with a focus on the role of health IT. The four steps to inform results provided perspectives from all relevant stakeholders and offered an opportunity to reach cohesive themes and accurate recommendations. Shared principles, rigorous evaluation, seamless integration and thoughtful innovation are all necessary to accomplish the vision of genuine patient engagement in a receptive and high-functioning system of care. The next step is leadership and collaboration to support an approach to learning and advancement that underscores the goal of achieving the Triple Aim.