

“Patient Empowerment”

Discovery Framework

Prepared for the Amgen Foundation

By Ashoka’s Changemakers

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I. INTRODUCTION TO THE DISCOVERY FRAMEWORK

Ashoka's Changemakers' approach is an integrative one that relies on an understanding of how solutions work together in context to effect change. It considers the multiple components of a problem (which we call barriers) and the varied insights (which we call design principles) necessary to shift them. This approach, reflected through this Discovery Framework, is a different way of thinking about systems change—one that values practice over theory and on-the-ground invention over academic analysis.

Our process: Building the Framework

Discovery Frameworks are built on an analysis of thousands of social solutions created by Ashoka Fellows, experts and thought-leaders to distill what we call “design principles” for change. The framework allows us to uncover patterns of what works in the field, what solutions are missing and illuminates ideas on how change is happening. For any framework, we begin by framing a question. The question that underlies each framework both describes the shift we hope to see around a given issue in the future, as well as the goal of the organizations and entrepreneurs whose work we include in the grid.

Next, we sift through Ashoka's database of more than 3,000 solutions from social entrepreneur fellows. These fellows go through a rigorous approval process before their election to the fellowship, which includes a thorough vetting of their ideas and performance. To that group, we add solutions recognized in the field as effective, whether they are hatched by individuals, companies, or institutions and government agencies.

Then, we cull a set of solutions to the most relevant and innovative. Finally, we cluster them and look for patterns in how the innovators both define the problem they face, and what they do to solve it. These patterns can point to powerful ways to reframe a problem, as well as new ways of addressing it. Ultimately, this analysis reveals the “a-ha” moment of recognition, in which an entrepreneur accurately pairs a powerful idea with a compelling need.

Once the analysis is displayed in a grid the “distribution” of the solutions becomes apparent. The framework shows what proportion of existing solutions address each specific component of a problem, thereby revealing which aspects are receiving less attention, and potentially short shift. It can show which strategies are most commonly (and most powerfully) used. And, it can point to “holes” or areas where there can be unmet potential for a solution to be invented at the nexus of need and idea.



The strengths of the Discovery Framework

It creates an entrepreneur’s view of the world. Entrepreneurs—of necessity—design solutions that address the thorniest aspect of effecting change: the human interactions in a system. Recommendations based on entrepreneurial solutions can predict and show ways to circumvent the behavioral barriers to change that strategies crafted from a more idealized viewpoint often cannot address.

It allows solutions to be examined in context. The framework shows how ideas relate to each other, as well as to the core elements of the problem. The result is the emergence of clear patterns: Which aspects of a problem are going unaddressed? Are some strategies under-utilized? Over utilized? Is there an aspect of a problem that has yet to be named?

It provides the map to derive a theory of change at a systems level. The patterns and insights revealed by the framework allow a funder to develop a coherent strategy around what mix of solutions could lead to a transformation of the field.

It creates clear criteria for predicting success. The design principles and barriers provide a road map for evaluating new projects and for guiding the invention of new ideas.

II. INTRODUCTION TO THE CHALLENGE

Patient empowerment –to build up the capacity of patients to help them become active partners in their own care, to enable them to share in clinical decision making, and to contribute to a wider perspective in the health care system.

The challenge of patient empowerment was brought into greater focus in 2001 when the Institute of Medicine’s Committee on the Quality of Health Care in America published a report entitled *Crossing the Quality Chasm: A New Health System for the 21st Century*. The report stressed the need to fundamentally redesign the US health care delivery system and recreate it around patient-centered care. The report’s analysis described clear outcomes, challenges of the redesign, and an outline of a ten-year strategy to create safe, effective, timely, efficient, equitable and patient-centered care. The committee’s work was thorough, the roadmap clear. Yet as late as 2007, editorials were still quoting the report’s description of the “chasm” between present health care and possible health care in the US.¹ It seems that, despite the nation’s best intentions, ten years have not made a big difference in the quality of health care and patient empowerment. Although this report was a wake-up call to the practice of medicine in the US, the need for patient care extends globally. In the international context, health care delivery is far more fragmented owing to a variety of socio-economic, cultural and institutional factors that contribute to the absence of patient –centered care.

Applying the Ashoka lens, we explore why the field is stuck to determine new opportunities for innovation and impact. This Patient Empowerment Discovery Framework was developed by drawing upon the insights of thought leaders, practitioners, social entrepreneurs, and institutions at the forefront of transforming the health care delivery system where the patient is truly at the center of the ecosystem.

The scope of this document begins with an introduction to the framing question, which delineates the boundaries of the analysis. We then go on to describe the fundamental system barriers that preclude patients from participating actively in decision-making of their health, delineate principles that empower them in the health care delivery system, and map innovations to the Discovery Framework grid. Descriptions of the social innovators studied follow in the appendix. This framework is intended to take a more specific focus on one (of many) elements that incorporate the field of patient empowerment and provide a baseline knowledge that will continue to evolve and build on the innovations and initiatives that participate in the challenge.

¹ “Disruptive Innovations in Healthcare: Expanding the Discourse on Quality and Value,” Mark A. Hyman, MD, *Alternative Therapies*, Jul/Aug 2007, vol. 13, No. 4, <http://www.ultrawellnesscenter.com/downloads/Disruptive-Innovations.pdf>

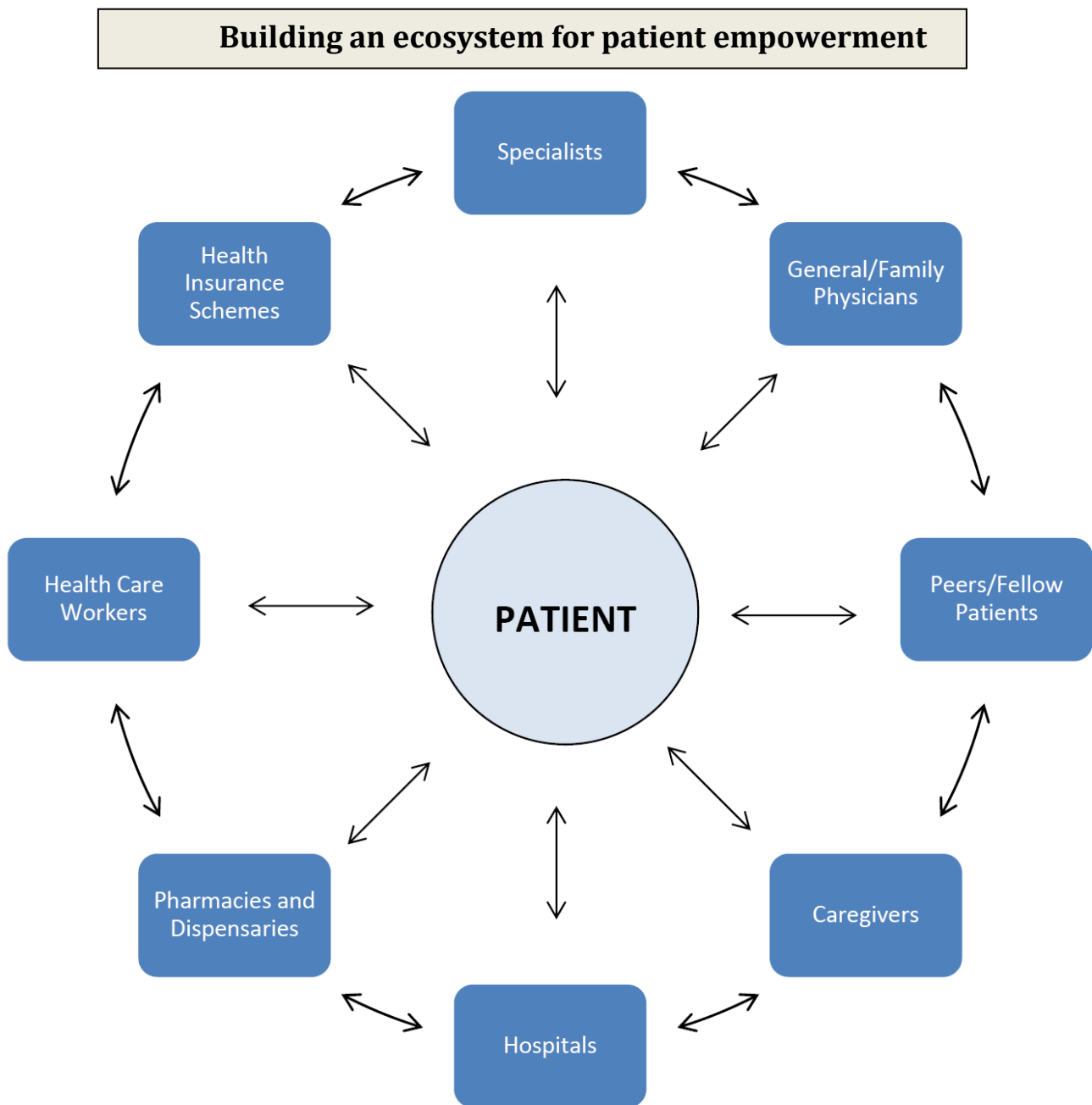
III. FRAMING INNOVATION

Framing Question: How do we transform a patient’s experience so that she and her family and community are fully informed and can confidently access and navigate her health care?

As we thought through the implications of the framing question for this challenge, we discovered a few key insights, which helped us to deepen our understanding of the innovation landscape around patient empowerment. These are outlined below.

- **Innovation isn’t about transforming *health systems*. It’s about transforming the patient’s *experience*.** In the developed world, medical care is essentially “good enough;” the primary problem is patients finding and accessing the right doctor/care. This meant changing the focus of our analysis from transforming the health care/process to transforming the patient experience.
- **Innovation isn’t about identified/existing patients. It’s about “everyone a patient.”** Discussing the differences and similarities between chronically and critically ill led us to think of health care more holistically, including preventive efforts, efforts to promote wellness, and palliative end-of-life care. Because of this holistic outlook, “patients” include people who are not yet diagnosed, or who are at risk for serious illness. In our view, in fact, everyone is a potential patient.
- **Innovation isn’t *just* about patient care. It’s about patient-, family-, and community-centered care.** In our initial research, it became clear that the patient’s journey is not an isolated one. Most patients have tremendous social capital in the form of peers, family, and community connections. These informal relationships are great assets that formal actors and institutions within the healthcare system can leverage to drive patient empowerment.
- **Innovation isn’t dominated by regions with mature healthcare infrastructure. It may be about “prospecting” effective solutions from the developing world.** Innovations in developing countries are leapfrogging certain interventions in the developed world. As a result, innovations from the developing world have the potential to be re-purposed in nations with more mature healthcare infrastructure.

- **Innovation isn't solely about *new* innovation. It's about adopting, implementing and scaling what works.** There are numerous experiments going on to enhance patient-centered care, but there is not a common platform that can track these experiments, talk about failures, share lessons, and facilitate their adoption and scaling.
- **Innovation isn't just about one-off transactions. It's about strengthening connections between ecosystem actors.** Ideally, the patient experience includes multiple points of interconnection among key health care players as in the figure below.



IV. BARRIERS

Barriers are core components of a problem that, if changed, could allow for true systems-change. Barriers are not underlying causes that merely describe a situation. They must be moveable, actionable, and specific to the problem. The social entrepreneurs that we highlight are addressing these issues at key leverage points with pragmatic, innovative solutions. These barriers are a synthesis of the key findings from our research process and are intended as a summary. Innovations in solving these barriers are mapped in the Discovery Framework Grid and the innovators are included in the appendix.

The intimidation factor inhibits the ability to know and access what's there.

The medical system is intimidating. Putting all actual medical issues aside, logistical issues and the system's complexity often overwhelm patients as they seek care. In many cases, patients may not even be aware of treatment options, preventive services, or specialists that may be critical to their recovery. The design of the physical space can be intimidating to navigate and impact the patient experience as they seek to access quality care. Further, navigating among loose connections of isolated entities – government agencies, insurance companies, hospitals, physicians, other caretakers, and other patients – requires surmounting repetitive and cumbersome roadblocks.

In much of the world, simple geographic access to medical specialists and providers often does not exist. With a limited number of specialists available and growing health care disparities, their reach may be constricted, making it difficult – particularly for patients in rural areas – to access quality care.

Patients lack incentives for preventive care.

Most health care systems focus on managing sick people, not promoting health. By definition within these systems, “patients” are people who have an illness that needs treating after the fact. Moreover, most patients aren't motivated to seek preventive care because there aren't many incentives to do so.

Traditionally, insurance companies in open, non-national health care systems have paid primarily for treatment, not prevention and wellbeing. They reward doctors and health care professionals for the amount of care given, not the quality of care or effect on patients. Meanwhile, these companies control a wealth of information that could help patients prevent illnesses. Similarly, privately insured patients get more financial value from their policies for being ill than for being well.

Information available to patients is either nonexistent or overwhelming.

Patients diagnosed with serious illnesses often feel isolated because they can't find out what they need to know easily, from doctors, health care workers, other patients or web sites full of information and impossible to navigate. In fact, few health systems make it easy and fast to access health information, whether people are patients or health care workers. Further, information shared with patients by physicians may not be in a language that they understand, thereby leaving them with an incomplete grasp of their own conditions and medical history.

Specifically, in non-national systems, patients don't have a complete history of their own personal information, because various doctors and health care providers hold portions of their health records. These systems often put the onus on the patient, who must remember or record every illness, physician contact, prescription and treatment, then "inform" each new physician by completing virtually the same questionnaire multiple times. The issue of collating a patient's medical history is more than an inconvenience to patients; it also limits the quality of care, because physicians' health care options are limited to what they have experienced about their patient's health issues. At the same time, patients are often not included in the decision making process of how to manage their health condition or that of their loved ones.

Cultural attitudes and perceptions contribute to patient isolation.

There are many reasons for why patients may distrust modern health systems – culture, norms, attitudes and perceptions can all contribute to a patient's unwillingness to seek treatment. For example, a patient may have little confidence in modern health systems; instead, opting for self-care or alternative and traditional medicines. Certain cultures may be more trusting of traditional healers and herbal-based medicines than they are of doctors and "Western" remedies. Even in the West, a "do-it-yourself" mentality might prevent patients from seeking care until a much more serious condition arises. Specific health practices, such as a male physician personally examining a woman's body for disease, may not be culturally acceptable and could potentially cause an outright rejection of a health system. Patients may fear that health disparities such as genetic and biological variations, lifestyle choices, and health histories could be used against them, preventing a patient from receiving the best possible service.

Furthermore, doctors acknowledge that there are a small percentage of patients who do not want to take charge of their own health. They want a doctor or health care worker to “take care of them” and make all of the decisions. Reasons for this *willfully un-empowered* patient attitude range from denial to mental health, and cultural and generational issues.

Ultimately, family networks and beliefs, cultural traditions, and sensitivities including discrimination (real or experienced) often influence how aggressively a patient will seek empowerment and health care within any system. Therefore, by including family networks and communities in conversations about health awareness, patients will be enabled to build a strong patient care support system.

V. DESIGN PRINCIPLES

Design principles are insights and strategies we distill from the work of leading social entrepreneurs. They do not encompass tools (like technology or education) nor do they name specific organization-level approaches. They are clarifying ideas and insights that identify levers of change.

Co-production; engaging patients as valuable resources - as partners, not passive recipients of care.

Co-production – defined as the development of health care services through the joint contribution of patients, communities and providers - encompasses a spectrum of patient empowerment from decision-making and participatory methods of knowledge sharing to the joint development and ownership of new products and services. Enabling patients to become active managers of their health builds their degree of confidence and comfort in navigating the health system. Improving people’s ability to choose the best care for themselves through access to the most helpful people and information is critical. Additionally, helping patients prepare for a medical visit also builds their ability to ask the right questions and become more involved in their care.

The Internet also opens up new avenues for accessing the experience of many patients, which could also inform new research. By educating and informing patients about the process of developing new therapies and the patient’s role in that process, innovators could increasingly integrate patients into ongoing research studies and help their understanding of an illness.

Create non-traditional associations.

Many non-traditional stakeholders have competencies that can be leveraged to ensure quality care. At the level of the community, there are many “hidden assets” that can be used to improve the patient’s experience as well as the services they receive. Building non-traditional networks from the community – which may include diverse actors from health practitioners to civic clubs and university students and faculty – can create an ecosystem of accountability that puts the patient first. Further, collaborations between insurance companies, governments, corporations and non-profits allow for the creation of hybrid services that are economically sustainable, but not subject to “bottom line” thinking.

Additionally, peer-to-peer support networks – that link patients with similar conditions – enable patients to learn from each other’s successes and challenges, and support each other through the journey of the condition.

Enhance “transaction” efficiency.

There are numerous points of exchange between patients and health practitioners that can be cumbersome, inefficient, and redundant. Innovative strategies that promote real-time access to comprehensive medical records, specialists, and medical information provide timely and targeted service to meet patient needs. Fundamentally, many of the innovations that address this design principle give patients and health practitioners control over consolidated information, both about their disease and about their medical history, thereby increasing the efficiency of providing medical care. Often, this real-time interaction brokers relationships between patient and providers that would otherwise have trouble accessing one another.

Enable health practitioners to “speak patient,” creating a foundation for high-quality care.

Health professionals are fully trained in the technical aspects of their specialties, but are often not as successful in conveying expert knowledge to patients. Yet being able to communicate with patients is a necessary component in empowering patients to manage their own health and well being.

In addition to covering the essentials of medicine, more university or medical school programs must train doctors in “speaking patient” and improving bedside methods. Innovations that illustrate this principle often provide intermediaries such as the community health care worker who can “translate” both the doctor’s views and ways to negotiate the system as a whole in enabling patients to make better decisions about their health.

Diversify methods of health care delivery.

It is difficult for patients to be empowered when people don’t have easy access to high-quality health care diagnostics, medications, providers or specialists. Innovative delivery mechanisms can be used to significantly extend medical care to hard to reach areas or populations in the developed or developing world. The strength of such health care delivery innovations go beyond removing barriers to communication by building local capacity to prevent, identify, and treat diseases. Other innovations in delivery methods empower patients by safeguarding product quality and providing novel products and services that increase compliance.

VI. DISCOVERY FRAMEWORK GRID

The grid shows how existing solutions address each specific component of a challenge within the field. It can show which strategies are most commonly (and most powerfully) used. And it can point to “holes” or areas where there can be unmet potential for a solution to be invented at the nexus of need and idea. For the purposes of this framework, innovators have been categorized by the predominant design principle they are applying and the barrier they are focused on. By no means does this suggest that innovators are limited to those principles and barriers. Most apply several principles to address multiple barriers. Such approaches make their strategies more robust and comprehensive.

Design Principles	Barriers			
	The intimidation factor inhibits the ability to know and access what’s there	Patients lack incentives for preventive care	Information available to patients is either nonexistent or overwhelming	Cultural attitudes and perceptions contribute to patient isolation
Co-production; engage patients as valuable resources – as partners, not passive recipients of care	Sneha+ Zocdoc.com Patient Opinion		VCT Online Universidad de los Pacientes+	Delia Villalobos-Arciga+
Create non-traditional associations	Center for Health Design	Coordinated Care Network+ Project HEALTH+ Project ECHO+	Lybba Project ECHO+ PatientsLikeMe	Salud Collectiva EHAS+ Ethno-Medical Center+
Enhance “transaction” efficiency	Neuroresponse HealthPoint+ Sana/Moca Mobile	Healthymagination Nextgen EMR	MiCARD Pillbox	
Enable health practitioners to “speak patient,” creating a foundation for high-quality care	Partners in D		Project ECHO+ Sneha+ Ask me 3	
Diversify methods of health care delivery	Nevirapine Pouch		CycleBeads Mpedigree+ ThermoSpot	Project ECHO+

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**Note: The grid maps a selection of the most innovative solutions from the appendix

VII. APPENDIX: THE INNOVATORS

The innovators below are arranged alphabetically according to their organization or innovation.

Ask me 3; Partnership for Clear Health Communication (USA): With 350 active members across the US, PCHC is an effort with the National Patient Safety Foundation to expand awareness and educate patients and health practitioners about low health literacy by developing practical solutions to improve communication while motivating the health care system to adopt them. Ask Me 3 is a quick, effective tool designed to improve health communication between providers and patients, thereby empowering patients to better understand their health problem and the treatment or preventive regimen prescribed. The tool includes three questions that patients must ask their providers: What is my main problem? What do I need to do? Why it is important for me to do this? This tool enables providers to converse effectively with patients using plain, easy to understand language and visual models in a safe environment where patients feel comfortable “teaching back” the care instructions they receive without spending more time in an office visit, while also increasing their satisfaction. The Ask Me 3 program includes brochures, posters and a Web site about health literacy, customized for patients, providers, and organizations that are available free of charge.

Center for Health Design, Evidence-Based Design and Accreditation Certification (EDAC) (USA): The Center for Health Design promotes the Evidence-Based Design and Accreditation Certification (EDAC) program, which lays out specifics for buildings and designs to be certified. All criteria are evidence-based, an emerging concept that teaches architects and designers to integrate the needs of patients into the design of physical structures and infrastructure. In keeping with the current trend of providing a more integrated, iterative, patient and family centered approach to health care, the design of the physical space impacts the patient experience from accessing the facility, checking in, consultation with the physician, pharmacies and checking out. These interactions help shape the patient’s journey by providing them with information and support to be active participants in their own care.

Chronic Care Model (CCM); Dr. Ed Wagner (USA, adopted world-wide): Developed more than a decade ago, the Chronic Care Model (CCM) is a widely adopted approach to improving ambulatory care that has guided clinical quality initiatives in the US and around the world. CCM identifies the essential elements of a health care system that encourage high-quality chronic disease care and empower patients to seek care when they need it and where they need it. These elements include the community, the health system, self-management support, delivery system design, decision support and clinical information systems. Using evidence-based concepts under each element, the model promotes communication between informed patients who take an active part in their care and providers with resources and expertise.

Coordinated Care Network (CCN); Jeff Palmer (USA, Ashoka fellow): The Coordinated Care Network empowers patients to identify and make use of preventive services paid for by their insurance companies when they are at risk for specific conditions and diseases. Using insurance companies' databases and with a proprietary claims surveillance and health risk assessment technique, CCN identifies patients at risk for certain health problems. They then offer preventive services to the clients. The system also offers clients a central pharmacy/mail order facility and drug discount program. This for-profit operation supports the services of nonprofit health care providers in the network.

CycleBeads; Leslie Heyer (USA but available worldwide): A simple, natural, family planning tool with a 95% effectiveness rate, CycleBeads enables women to track their most fertile days on a simple string of beads with a moving rubber "donut" to track days. Empowers women to manage their health and pregnancies without expensive drugs (such as the Pill), or highly technical processes (such as tracking body temperature). A questionnaire on the CycleBeads web site identifies women who are best candidates for using the beads.

Project ECHO; Dr. Sanjeev Arora (USA, Ashoka fellow): Using telemedicine and videoconference, Project ECHO aims to develop the capacity of local health care workers in New Mexico to safely and effectively treat chronic, common, and complex such as Hepatitis C in rural and underserved areas, and to monitor outcomes of this treatment. Local health care workers bridge the gap between physicians and patients with chronic diseases by providing continuity of care, including disease management elements such as weight management, nutrition and shopping for healthy food. Project ECHO creates a one-to-many "knowledge network" of specialists and up to 40 rural providers, who meet by videoconference to co-manage specific patients and share two-way teachings in which the ECHO staff works with remote clinics to coordinate and educate the patients, thereby empowering them and providing them with direct access to quality care. Referred to as the "workforce multiplier," Project ECHO helps dispel myths, stereotypes and prejudices by training community members (who may also be patients) as peer educators and health care workers.

Ethno-Medical Center; Ramazan Salman (Germany, Ashoka Fellow): Salman's Ethno-Medical Center established a system of nationwide networks called MiMi (migrants for migrants) led by successful immigrants who have mastered living in Germany, and in turn, reach out to assist other immigrants in understanding their rights in the German health system. When setting up new mentor-driven migrant health information networks in a city or a state, Salman looks for two well-connected immigrant-led civil society organizations. With their help, he builds health care information networks by training successful immigrants to become lay medical experts or "health mediators" who then reach out to their communities. The training program also draws on doctors and experts from respective cities or states to teach extra courses. The mediators spread their knowledge by running a series of evening or weekend

events and seminars in their community center, mosque, or school for their fellow migrants and by building up local networks and discussion rounds. He also works with communal health care institutions as well as the municipality or state government. The project is collaborative—German doctors and nurses assist in training the immigrant mediators, while the immigrants teach the Germans about the cultural issues surrounding health and illness as well as culturally common health issues.

Guided Care; Dr. Chad Boulton, Johns Hopkins University (USA): Guided Care addresses the growing challenge of caring for older adults with chronic conditions and complex health needs. A Guided Care Nurse, based in a primary care office, works with patients and their families to improve their quality of life and make more efficient use of health services. The nurse assesses patient needs, monitors conditions, educates and empowers the patient, and works with community agencies to ensure that the patient’s healthcare goals are met. In a pilot study, Guided Care patients rated their quality of care significantly higher than usual care patients. Their average insurance costs were 25% lower over a six-month period.

Healthmagination; Michael Barber (USA): A GE-group company that offers a number of ways to get people involved to improve their health, Healthmagination includes a cell-phone based simple daily “Challenge” that prompts people to do healthy actions with others involved in the system, and ways to visualize medical data to understand it easily. The group also created WebMD, an online service that helps patients identify questions they may want to ask their doctor at their next appointment; WebMD is illness-specific. A handheld, pocket-sized ultrasound machine developed by the group enables rural patients to get top-quality care from local health workers and clinics instead of traveling long distances.

Health Connect; Chris McCarthy, Kaiser Permanente (USA): The largest private sector electronic health record in the world, Health Connect includes bedside documentation, clinical decision support, and bar coding for medication administration. Health Connect empowers patients to manage their own health and records. It guides them to ask specific questions about their condition, even allowing them to email the questions directly to the doctor before the appointment. Patients can also make appointments through Health Connect.

HealthPoint; Dr. Al Hammond (India, Ashoka Fellow): HealthPoint is a system of telemedicine clinics that enable villagers throughout India to go to local, low-cost clinics for care from top-quality physicians in urban areas. HealthPoint clinics eliminate the need for patients to travel to distant cities for good care and provide excellent care for the same cost as local “doctors” who may or may not be quacks. On-site health care workers access remote physicians and specialists with the patient present. The physicians use the system to diagnose and treat the patient from a distance for an affordable fee. Healthpoint Services leverages its innovative

business model and the availability of novel technologies to deliver high quality healthcare to rural areas in India and beyond.

Hispano American Health Link (EHAS); Andrés Martínez Fernández (Spain, Ashoka Fellow): Hispano American Health Link (EHAS) is a professional network connecting rural and urban health care providers who rely on each other for full access to the national healthcare system's resources, including ongoing training, the ability to exchange medical and epidemiological information, and specialist consultation for individual cases. Based in Colombia, Cuba and Peru, and with new pilot efforts soon to be developed in Ecuador, EHAS not only helps rural health workers to overcome a feeling of isolation in remote villages, but also supports public healthcare systems to fully reach patients no matter where they live. His unique partnerships with telecommunication, engineering and medical departments in local universities are also training academics to become hands-on, multidisciplinary leaders, implementing innovative solutions that are catered to community needs. Because patients in communities where he works often distrust modern health systems and rely on traditional healing techniques, he has established programs within schools to work with children, teaching them about public health systems and "modern" medicine so that they can transfer knowledge to their parents, and build community confidence and trust in their doctors and community health workers.

Lybba; Jesse Dylan (USA): Lybba is improving people's ability to choose the best care for themselves through access to the most helpful people and information. By creating compelling interaction environments, medical content, and social media campaigns, Lybba builds interest, enriches understanding, and provides compelling ways for people to engage with the health issues that matter most to them. Their focus on communities who suffer from rare, neglected and chronic diseases helps people better understand their conditions and cures by building open source health platforms around a particular disease.

MiCARD/NoMoreClipboard.com (USA): MiCARD and NoMoreClipboard.com are two for-profit systems that were combined to empower patients' control over their medical record and ease the process of providing that information to physicians and health care workers. NoMoreClipboard.com enables patients to track their medical records online, including prescriptions, appointments and other details. The system then downloads the information onto MiCARD, a small, credit-card sized wallet computer that accesses the information via an interactive screen. MiCARD holders never have to remember every medical detail of their experience, but can provide it directly to the practitioner. The system also enables patients to send their medical records to their doctors before appointments in the formats the doctors' prefer. MiCARD eliminates the need for patients to complete repetitive medical information histories, and saves precious time with the doctor by providing detailed medical information

before the patient is in the appointment. The basic service is offered free of cost while premium accounts are also available.

MPedigree; Bright Simons (Africa, Ashoka Fellow): Enabling people to determine if a drug is authentic or counterfeit before they buy it, MPedigree is ensuring patients have enough knowledge to buy safe and legal medications. By simply sending a code embossed on the body of the product in a text message via cell phone to a dedicated access number, consumers receive a real-time response that authenticates the product, enabling patients to avoid counterfeit or substandard medications before they are purchased. Counterfeit or substandard drugs pose serious health risks to consumers, believed to be responsible for 20 percent of malaria deaths and viewed as contributing factors to the growing problem of drug resistance. MPedigree ensures that patients buy only authentic medications.

Neuroresponse; Bernadette Porter (UK): Neuroresponse is a social enterprise offering a new model of care for people with Multiple Sclerosis. Multiple Sclerosis patients frequently have to travel long distances to receive the specialist treatment they require. Moreover, the communication and delivery of treatment to patients with MS and other neurological illnesses has not kept pace with the advances in the treatment available. Comprising of a telephone triage service, video clinics and an email hotline for GPs to consult neurologists directly, the venture will speed up response times, increase efficiency and enhance the quality of life for those in pain. The service will improve the quality of care provided to people with MS, make it easier to access care, reduce patients' anxiety, and provide support for those with severe disability. Quality of care will be improved by allowing patients quicker and more regular access to experienced consultants for OP consultations. Access will be improved by eliminating the need for patients (who often have mobility difficulties and are currently obliged to travel up to two hours for consultations). Anxiety will be reduced by providing a reliable, qualified triage phone line as a first line of response in the case of an attack. NeuroResponse (NR) aims to become the UK market leader in the provision of high quality telecare for those living with long term neurological conditions.

Nevirapine pouch; PATH (Kenya): The Nevirapine pouch enables new mothers to take charge of their newborns' health by administering preventive antiviral HIV medications at home. In Kenya, HIV-positive mothers will transmit HIV to their newborn babies unless the children receive antiviral medication during the first few weeks of life. Before the pouch, obtaining the medication meant traveling long distances back to the clinic where the medication could be administered. With the pouch, mothers now have a safe way to preserve and transmit the medication, and can administer it themselves at the appropriate time at home. The pouch not only empowers the mother to care for her newborn, but also increases the odds of the drug being administered because mothers need not travel to obtain it. The pouch keeps the medication safe and clean, for as long as two months.

Nextgen EMR; Medical College of Wisconsin/St. Joseph's Family Medicine Residency (USA): Empowering patients to take advantage of preventive care, the Nextgen system identifies patients at risk for specific conditions by using its electronic health records to identify specific populations (such as children needing immunization). Using these records, Nextgen establishes benchmarks and offers individuals the option of preventive care. The system is also beginning to track performance and quality of care standards so patients see how different aspects of the system perform in terms of patient health care.

Partners in D; California State Initiative, California Schools of Pharmacy (USA): This initiative leverages the collective knowledge of student pharmacists, health practitioners, faculty members in pharmacy schools, and community partners to advocate for and provide seniors, especially in underserved communities, with Medicare Part D counseling that promises greater access to prescription medication for millions of elderly Americans in an otherwise, cumbersome and complex system. The initiative empowers seniors by providing them individual advice and, more importantly, training student pharmacists and other health professional students about the program so they can effectively communicate with patients and providers and enable access to quality care in a multi-cultural state. The program serves as a model of collaboration across the healthcare spectrum by engaging students and teaching them to “speak” patient, as well as highlights the importance of health policy literacy among healthcare professionals.

PatientsLikeMe.com; Ben and James Heywood, and Jeff Cole (USA): PatientsLikeMe.com is an online patient community that allows people to track treatments, therapies, side-effects, and other aspects of specific diseases and conditions. The site links patients with similar conditions and enables them to communicate about how different people are handling their disease/condition. PatientsLikeMe.com also is developing tools to review their large database of patient symptoms, therapies, side effects and efficacies for impromptu evaluations of therapies and medications.

Patient Opinion; Dr. Paul Hodgkin (UK): Patient Opinion is adapting Web 2.0 technologies in a new real-time platform to allow people to “voice” their medical experiences that are “heard” by other patients, the hospitals and clinics providing care, and third-party contractors who subscribe to this service. Currently, about 30 hospitals or third party payers subscribe to Patient Opinion, representing 4 million people and around five to eight percent of the total English market. Patients and care-givers are able to find out what people think of local hospices and mental health services, read about what the service was like, and offer great ideas about how to make care better. Postings are submitted to the site, staff members send the postings to the right manager so that they can assess the claims or concerns, and then the health care company and hospital managers post follow-up information on how they have improved a particular service. Patients are empowered to effect improvements in the health care system such as

improving infection control, re-training nurses, and increasing awareness in using this platform which is also used by policy makers to evaluate hospitals in the U.K.'s National Health System.

Pillbox; David Hale (USA): Pillbox is a website that enables patients, emergency medical technologists, doctors and others to identify a medication/pill from its shape, color and imprint. Using a simple series of questions and images, patients can determine what a medication is. The website also links the patient to extensive information about each medication's applications, contraindications, side effects and other information critical to using the medication properly. In situations where patients are unable to speak for themselves (as when unconscious or in an emergency situation), emergency personnel can also easily access the site.

Project HEALTH; Rebecca Onie (USA, Ashoka Fellow): For low-income youth and families, traditional medical care is not sufficient to improve health outcomes. Low income families need to get healthy and stay healthy. Founded in the Boston Medical Center Pediatrics Department in 1996, Project HEALTH's approach is to enable doctors to "prescribe" food, fuel assistance, housing, or other unmet needs for their patients, just as they do medication. Patients take these prescriptions to Family Help Desks in clinic waiting rooms, where college volunteers "fill" them by connecting patients with these critical resources. Last year, Project HEALTH trained and mobilized nearly 600 college volunteers serving over 4,000 low-income patients and their families in Baltimore, Boston, Chicago, New York, Providence, and Washington, D.C.

Salud Colectiva; Jaime Ibacache-Burgos (Chile, Ashoka Fellow): Salud Colectiva is a new health model that responds to communities' specific needs according to their environment, cultural and ritual experiences. This model promotes knowledge sharing, integration and equality between patients in the community, medical personnel, local traditional healers and the community while respecting the cultural practices and autonomy of local populations and ultimately ensuring that health delivery is people-centric. Developed in response to an authoritarian health system, Jaime's team promotes social participation in administrative management and proceedings of health programs. This team (Salud Colectiva) is composed of community members, such as midwives, local healers, and various medical specialists that collectively bring knowledge about the social and cultural determinants of health and wellness processes. This approach strengthens family and community strategies that naturally protect human health, and generates a socio-cultural path that strengthens the community.

Sana/Moca Mobile; Zack Anderson, Leo Anthony Celi, Gari Clifford (India, Mexico, Philippines, USA): Using open source data collection and collaboration platforms, Sana provides access to health care in remote areas through innovative mobile information services that empower patients by improving their access to medical specialists for faster, high quality, and more cost effective diagnosis and intervention, thereby, helping circumvent what could otherwise be intimidating. Using this remote technology, the clinic's health care worker can

screen for specific diseases, gathering information using prepared forms and cell-phone photos to show the distance physician; the system can even send X-rays or ultrasound media images. The information is sent to the distance physician via OpenMRS, where the doctor reviews the information online, and then sends back the diagnosis and procedure for the originating nurse or health care worker to communicate to the patient.

Sneha; Dr. Armida Fernandez (India, Ashoka Fellow): Sneha ensures that women and their families are active partners in the health care process by educating them about best practices during and after pregnancy - enabling them to become informed and responsible caregivers. Her work is centered in Asia's largest slum in Mumbai, and utilizes the resources and infrastructure already available to the community, while simultaneously increasing the use of these services at the community level through a sound referral system. Specifically, her program works with coalitions of health practitioners, friends, and ordinary citizens to persuade corporations and civic clubs to support health care facilities with training and equipment. Her participatory methods focus on training families to seek out local health care facilities, use referral services, and identify maternal and newborn health problems before they reach the point of crisis, essentially making "every mother a nurse." To further successfully integrate her programs into a public hospital system, she uses participatory research that encourages staff and patients to explore and solve their own problems.

Telepsychiatry; Children's Hospital, Seattle (USA): Telepsychiatry is extending the reach of psychiatrists for children in the region through teleconferencing therapy sessions. Clients without access to a local therapist, but in need of regular counseling, can now use telemedicine facilities to work with a therapist at a hospital or urban area. The patient uses the telemedicine facilities at a local clinic, eliminating the burden and barrier of having to be driven to a therapist regularly. This is especially empowering for young patients, who depend on family members for transportation in suburban or rural areas.

ThermoSpot; John Zeal and Camborne Consultants (USA): A stick-on temperature indicator, ThermoSpot empowers new mothers to monitor their newborns' body temperature so they avoid hypothermia (being too cold), a leading cause of neonatal death in the developing world. The patch changes color and a "smiley face" disappears when the child is approaching dangerously cold body temperature. Since newborns are so small, they respond to changes in their environment faster than older children and adults. Young new mothers often don't realize that their newborn is dangerously cold or hot. ThermoSpot empowers the mothers with easy-to-read information that enables them to act to protect their children and maintain a safe body temperature for baby.

Universidad de los Pacientes (Patients University); Albert Jovell (Spain, Ashoka Fellow): A virtual "university" in various chronic illnesses, la Universidad de los Pacientes supports

patients to become certified as experts in their disease, enabling them to better manage their disease and health outcomes. The university reaches chronic patients, family members, volunteers and others, and collects and organizes information for them that is useful, presenting it online as a virtual university experience. Patients can also attend subject-specific on-site training to learn information in more detail and earn their certification as an “expert.” Classes are largely taught by fellow patients who can relate to the students with their own experience. As patients become more knowledgeable about their illness, they gain confidence and take control of it, helping their doctors make better decisions about their treatment.

VCT Online; Louis Othieno (Kenya): Enabling people to determine the HIV status of potential partners, VCT Online provides knowledge that allows partners to make informed decisions around whether or not to use protection. Ninety percent of all new HIV infections result from unprotected sex between people of different HIV status (i.e. infected and non-infected status). Thus, the key to preventing HIV transmission through intercourse to uninfected people is ensuring that cross-status sex, when it happens, is protected. VCT Online tests people anonymously for their HIV status, and then registers the results with VCT Online’s database. People use their cell phones to check if consensual sex with another person (also registered with the database) is cross-status. Clients of VCT Online are 90 times less likely to get HIV through sex than non-clients. Moreover, HIV transmits 70 times faster in the general public than it does in the sub-population of VCT Online clients.

Delia Villalobos-Arciga (Mexico, Ashoka Fellow): Since poor health is a cultural and infrastructural problem in Mexico, Delia’s programs focus on changing both cultural and structural aspects of Mexican medicine by sending mobile clinics to remote rural areas where health care is scarce. Medical teams run workshops where women can openly discuss their sexual health, reproduction, prevention, and are trained to be local health promoters who continue care and education in their communities. While her efforts are currently focused on women, this program will eventually include men as health promoters as well since issues related to sexual diseases, pregnancy and domestic violence impact all community members. Training includes diagnosis, therapy, massage, bioenergetics, and use of medicinal plants, empowering community members to start talking about health issues that they’ve never discussed before.

Zocdoc.com; Cyrus Massoumi (USA): Zocdoc.com is an interactive web site where patients can locate a physician according to location, city and state, specialty, and insurance plan, and then make an appointment immediately based on the doctor’s availability. Users also rate doctors on waiting time, bedside manner, and recommendation using a 5-star system. Empowers patients to select the physicians who have the approach they want, is closest to them, is most quickly available, and is covered by their insurance, all on one site. It is limited to New York, Washington D.C., and San Francisco at this time.

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