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Alternative Futures

A Monthly e-Newsletter From:

Institute for Alternative Futures

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In This Issue:

Upcoming Events:

Pharmacy's Preferred Future, IAF President Jonathan Peck will address the Department of Veterans Affairs 11th National Pharmacy Conference on September 12 in Dallas, Texas.

The Future State of Cardiovascular Disease: Today's Decisions... Tomorrow's Outcomes, IAF will facilitate a National Heart, Lung and Blood Institute strategic planning conference to create a cardiovascular disease knowledge network.

Imaging, Biomedical R&D and Healthcare's Future, IAF President Jonathan Peck will address The American Imaging Management Symposium on

The DRA Project Looks at Opportunities for Reducing Health Disparities

The Institute for Alternative Futures has joined together a network of 35 sponsors and partners to explore advances that can reduce disparities in health.* At the April meeting for sponsors and partners, the project identified opportunities for reducing disparities to be explored over the summer and at the next meeting in September. The opportunities identified are:

- Community Focused Approaches to Prevention
- Cell Phones Used to Reduce Health Disparities
- Enhanced Consumer Navigational Support
- Continuous, Passive Biomonitoring for Health and Prevention
- Closed Loop Insulin Pump and Biomonitoring System
- Early Detection of Cancer Through New Platforms for Screening
- Biomonitoring Used to Change Behavior Upstream at the Community and National Level

Trends and forecasts are being collected, opportunities for reducing disparities assessed and potential activity for the DRA Project considered for each of these areas. For the list of DRA Project Partners see www.altfutures.com/dra. For the detailed results of the biomonitoring research see www.altfutures.com/bfp.

In advance of our next Partners Meeting on September 13th, IAF has decided to focus on three of these opportunities in this edition of our newsletter. The three articles below focus on the potential of these advances to reduce health disparities and the opportunities available to accelerate the use of these advances in underserved communities

IAF encourages you and your organization to get involved in reducing health disparities. If you would be interested in receiving the full committee reports for any the committees highlighted here, please contact Craig Bettles at cbettles@altfutures.com. You can also contact Craig Bettles if your organization would be interested in joining the DRA Project.

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The DRA Project Looks at Patient Navigation

Emerging Trends in Advanced Diagnostic Imaging on September 21 in Chicago.

Funding the Care Revolution: How to Pay for HIT, IIAF President Jonathan Peck to participate in panel discussion at the eHealth Initiative and Bridges To Excellence's Third Annual Health Information Technology Summit on September 26 in Washington, D.C.

One of the most persistent disparities in the healthcare system is the inability of poor and minority patients to navigate the maze of rules, regulations and institutions to access the care they rightly deserve. This is less a challenge of access to care, but the inability to connect patients and to ensure that patients are able to receive the most effective care possible. Frequently, the inability of patients to navigate the healthcare systems leads to worse outcomes for poor and minority patients.

There are a number of advances that could improve the quality of consumer navigational support over the next ten years. These advances include both electronic and personal navigators. Organizations such as the National Cancer Institute and the American Cancer Society have significant experience with enhancing consumer navigation of the healthcare system. Related activities include:

- Patient Navigators to help underserved patients overcome barriers in the healthcare system.
- Patient Advocates that work on behalf of patients to improve the healthcare system and troublesho
- Community Health Workers that work to integrate information about health and the health care sys communities
- Lay Health Advocates that serve as an interface between the congregations of local churches and

These programs are underway in communities across the United States. The American Cancer Society has supported patient navigator programs. Both the National Cancer Institute, through the Center to Reduce Cancer Health Disparities, and the Centers for Medicare and Medicaid Services have patient navigator programs underway. Community health worker programs have been instrumental in communities to support patient navigation of the healthcare system as well as promoting health and wellness in the community.

Another opportunity to improve consumer navigation of the healthcare system is through electronic navigation. Healthcare portals that contain tools for finding healthcare resources and managing healthcare records are one growing area of electronic navigation. These portals offer tools for submitting and tracking claims as well as accessing health information, health savings accounts, flexible spending accounts, prescription drug comparisons, hospital comparisons and other tools to help patients navigate the healthcare system. These healthcare portals are often designed and targeted for large employers implementing consumer directed care plans. However, there is an opportunity to use the learning from these systems as they roll out to develop similar products to help underserved populations navigate the healthcare system. These products would need to be culturally and linguistically appropriate for different target populations and to focus on public services available for low income patients.

A number of opportunities exist to improve consumer navigation of the healthcare system. The most important, and most audacious, is to streamline the existing healthcare system so navigation is easier for both patients and providers. This is the root cause of the problem, and one that should be addressed directly. Other opportunities for improving consumer navigation to reduce health disparities include:

- Developing simple and clear documentation in health systems.
- Developing some common definitions for health navigators and health navigator programs.
- Identifying and supporting ongoing sources of payment for consumer navigation.
- Identifying and disseminating best practices for health navigators.
- Developing a website that will act as a resource for existing navigators especially lay navigators, to access best practices.
- Developing and distributing to the navigator community forecasts for key emerging technologies and health care practices that are relevant to the navigator function.
- Research/explore how to integrate information/knowledge technology with the working practices of navigators.
- Research/develop a "health compass" for individuals to help them manage the healthcare system.

The DRA Project Looks at Continuous, Passive Biomonitoring

As part of the DRA Project, the Institute for Alternative Futures received funding from the Robert Wood Johnson

Foundation to look at the use of biomonitoring to reduce disparities in care. One of the recommendations from the Biomonitoring Futures Project (BFP) was to carry forward the idea of using continuous, passive biomonitoring for disparity reduction. Through the DRA Project, this idea is being developed with the range of DRA Project Partners.

In the home, continuous, passive biomonitoring is used to monitor elderly patients and patients with chronic conditions. Continuous, passive monitors are also worn in personal devices to monitor physiological parameters such as motion, body heat, heart rate, and breath rate. Using sophisticated algorithms, these parameters can be used to provide useful information such as energy expenditure and physical activity. Combined with software for health coaching, these monitors can improve health and help manage disease, both for the individual and their health care provider.

For reducing health disparities, there are two particular areas where continuous, passive biomonitoring might play a key role: preventing the incidence of high disparity diseases and helping patients manage existing high disparity diseases. A list of applications for continuous, passive biomonitoring to reduce disparities includes:

- Weight loss and controlling weight (potential applications in reducing disparities in cardiovascular disease, diabetes and certain types of cancers)
- Disease Management (potential applications in reducing disparities in cardiovascular disease, complications of diabetes and cancer therapy)
- Monitoring Living or Working Environment (potential applications in reducing accidents, identifying stressful work or living environments and identifying triggers that may cause high disparity diseases such as asthma)
- Monitoring mental states, health status or other conditions (potential applications in the early identification of high disparity conditions such as depression)

In both home and personal biomonitoring, the technology has improved dramatically over the last decade. A number of different universities, research organizations and companies are developing continuous, passive home monitoring systems. Many of these systems are used to assist the elderly, allowing them to live longer in their homes and to prevent accidents. A handful of companies are also developing continuous, passive monitoring for individuals that helps them keep track of caloric expenditure. These systems could improve disease management by assisting patients to tackle the root cause of a number of high disparity diseases: obesity.

Continuous, passive biomonitoring has the potential to reduce health disparities if the technology is widely adopted. A number of opportunities to speed up the development and deployment of continuous, passive biomonitoring for reducing health disparities exist:

- Development of interoperability standards.
- Development of evaluation frameworks to study the use of continuous, passive biomonitoring in underserved communities.
- Pilot projects using continuous, passive biomonitoring in underserved communities.
- Guidelines for implementation of continuous, passive biomonitoring in underserved communities and for diseases with high health disparities.

The DRA Project Looks at Blood Testing for the Early Detection of Cancer

There are significant disparities in screening, diagnosis and effective treatment of cancer involving particular ethnic groups and the poor. Identifying and accelerating new platforms for the early detection of cancer was one of the advances identified by the DRA and BFP Projects for the reduction of health disparities. Effective, easy to use screening tests detecting early cancer could make a big difference in beginning treatment early in the course of disease when therapy has a greater chance for a cure.

Advances in biotechnology are leading to the discovery of underlying genetic and molecular processes that lead to the development of cancer. Based on this expanding knowledge researchers are identifying specific biomarkers of genetic risk and early cellular changes of cancer (and even pre-cancer). Specific blood and other fluid and tissue tests are under development to detect these early biomarkers. Once perfected, proven effective and commercialized, they will be used to identify high risk populations for monitoring and to screen for early cancers. Although there are many promising early indicators that effective genetic, proteomic and cellular screening tests are possible, it could easily take 10 years for major breakthroughs to occur and make it through clinical trials to become available to the public.

Cancer biomarkers are a hot topic in biomedical research and development with a range of companies researching markers, developing tests and testing cancer biomarker tests for safety and efficacy. Progress is the most pronounced in developing tests to guide therapeutic decisions, such as gene over-expression. Another promising area of research is in identifying pre-cancers. Even though there is much work in identifying gene and protein patterns associated with cancer much more research appears to be necessary to identify and validate specific profiles for identifying early cancers. This will be an ongoing process with increasing successes in the years ahead.

Genetic and proteomic blood tests for cancer screening and diagnosis are in early stages of development and will likely take 10 or more years to reach the marketplace. At this stage, it is advisable to keep a close eye on innovations in this sector and then work to expand access to them in the market if they prove safe and effective.

With these comments in mind, IAF developed three time horizons for accelerating the disparity reducing potential of blood testing for the early detection of cancer.

Horizon 1 (1-3 years) - Review Currently Available Approaches; Monitor and Shape Emerging Potentials

- Document the extent of disparities in cancer screening and diagnosis and identify the cancers that are the biggest problems. Learn about the underlying root causes. Determine what can be done now to eliminate the major disparities. This knowledge would be valuable in deciding near term strategies and encouraging a research focus where there is the greatest need for reducing disparities.
- Monitor the progress of certain cancer screening tests which advance faster than expected and may become available within the next few years.
- Improve cancer screening for the poor, so they have systems in place for effective use of future tests. Those treating the underserved can make sure they are effectively conducting early cancer screening and overcoming cultural barriers in the use of current screening. This will not only reduce disparities now, but it will also build the processes and expectations of their patient population to be well prepared to effectively utilize new cancer screening tests when they become available.

Horizon 2 (4-6 years) - Position strategy and resources to leverage

- Once likely biomarker winners are discerned, the DRA Project can work with developers to obtain funding from the public sector in return for developing ways to meet the needs of the underserved.
- Promote the inclusion of ethnic minorities into clinical trials and encourage CHC participation in trials to determine appropriate use.
- Build bridges between the Centers for Medicare and Medicaid Services (CMS), other funders and test developers. Work with health quality leaders, such as AHRQ, to ensure appropriate trials and reimbursement of effective blood tests for early cancer.

All these efforts can accelerate the process, provide good will and influence availability for the underserved.

Horizon 3 (7-10 years) - Uncover possibilities and create options

- Novel approaches to biomonitoring involving saliva, breath, urine, stool and skin are likely to enter the marketplace. (See the Biomonitoring Platform Assessment at http://www.altfutures.com/bfp for more information). IAF is dedicated through the DRA project to find equally novel approaches to advances that reduce the disparities between the care available to the poor and to the well off.

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