

The Biomonitoring Futures Project: Final Report and Recommendations

DRA Project Report 06-14

Biomonitoring is one of the most exciting opportunities for future prevention of disparities. The Robert Wood Johnson Foundation provided funding to the Institute for Alternative Futures (IAF) to explore this opportunity through the Biomonitoring Futures Project. IAF reviewed current best practices in biomonitoring for cancer and diabetes, developments in biomonitoring using various platforms or approaches (e.g. blood, breath, physiology monitoring) and forecasts for diabetes and cancer care over the next decade.

The project reviewed current and anticipated developments in various forms of testing. Given the right cost and usability for consumers and community health centers, these tests could lead to dramatically better early detection of disease and pre-disease states, and support better treatment for diabetes, cancer and many other diseases, with the potential to reduce health inequalities. The tests reviewed include:

- Blood and Serum Tests
- Saliva and Oral Testing
- Breath Testing
- Stool Testing
- Skin Testing
- Urine Testing
- Behavioral and Lifestyle Monitoring
- Imaging Tests

It is projected that by 2016 the combination of biomonitoring technology with knowledge technology will give patients the tools needed to improve their own health and become more proactive consumers of healthcare. This will include the use of body monitors to manage diabetes and other chronic diseases, newer blood tests that identify genes and proteins allowing providers to predict the risk of future cancers and diagnose early asymptomatic disease, and molecular imaging that will allow doctors to visualize early cancer changes years before symptoms appear. The identification of asymptomatic or precancerous disease opens up new, less aggressive therapies for cancer. This empowerment of patients through access to their own medical information and information technology can reduce health disparities, if underserved communities have access to these technologies in forms that are linguistically and culturally appropriate.

The biomonitoring Futures Project identified four key opportunities for biomonitoring based on the input from the BFP Advisory Committee. These key opportunities have the potential to reduce disparities in health if they can be effectively developed and deployed in underserved communities.

1. Continuous, Passive Biomonitoring for Health and Prevention
2. Early Detection of Cancer Using Blood Screening
3. Community and National Biomonitoring to Support Upstream Change
4. Using Cell phones to Reduce Health Disparities

Review the full report at: http://www.altfutures.com/BFP/BFP_Final_Report.pdf. For more information on the DRA Project, visit our website at www.altfutures.com/draproject.

"The challenge is not only to anticipate the future, but to create it."

The DRA Project - Institute for Alternative Futures

Email: futurist@altfutures.com Website: <http://www.altfutures.com/draproject> Tel: 703.684.5880