Asthma's future in Utah: How genomics will play a role

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Background and objectives: The Utah Department of Health Asthma and Chronic Disease Genomics Programs recognized the importance of preparing for the genomics era and have begun to explore how genomics can be used to better understand and treat asthma. The first Utah Asthma Plan, released in September 2003, included one genomics-related objective. However, the Utah Asthma Task Force, a group of stakeholders charged with implementing the plan, was unsure how to proceed in this area.

The objectives are to describe 1) a process for integrating genomics into asthma activities and 2) innovative methods for engaging stakeholders in educational workshops.

Methods: A one-day workshop, held in April 2006, was the initial step for integrating genomics into asthma activities. The goals of the workshop were to bring together asthma and genomics stakeholders, educate stakeholders on genomics, and develop a list of strategies for using genomics in asthma management. Three focus areas were selected based on their potential relevance to asthma management – pharmacogenomics, family health history, and ethical, legal, and social issues. Speakers included representatives from the pharmaceutical industry, clinical genetics, academia, and the Utah State Legislature.

Engagement of attendees was a critical component of the workshop. Participants were formed into groups of 8-10 individuals and given three questions to discuss after each presentation. Fifteen minutes was allotted to discuss the questions. Facilitators were assigned to each group who recorded ideas on large papers that were used in a brainstorming session at the end of the workshop. Attendees self-selected one of three work groups to participate in during the brainstorming session.

Results: Over 65 individuals attended the workshop in April 2006. A work plan was developed based on ideas generated during the brainstorming session and a list of priority activities for each focus area determined. Evaluations showed that the majority of participants (54.5%) strongly agreed that their knowledge of genomics had increased and wanted to help integrate genomics into asthma activities (72%). An asthma genomics workgroup was formed with interested stakeholders to begin work on implementation of the priority activities. One genomics-related objective and 13 strategies were also included in the new 2006-2012 Utah Asthma Plan, released in April 2007. Interest across the nation promoted a second half-day workshop held in June 2007. Approximately 45 individuals participated in the second workshop either in-person or via videoconferencing.

Discussion/Conclusion: Genomics activities need not be complicated in order to be successfully integrated into asthma management. Asthma stakeholders are very interested in using genetic advances but need ongoing education about genomics and its potential impact on public health. Thinking outside the box in terms of stakeholders and engaging them in this process is also essential. Adding strategies to state plans can help genomics become a higher priority for the state as a whole.