Conclusions: Prioritization and engagement of the community in health promotion activities requires quick access to accurate data that have been translated into information. We describe the development of a web-based population health scorecard for this purpose.

INTRODUCTION

The community has a strong role in determining the health of its people by way of environment (eg, clean air and water), education levels, occupation and income, the built environment (eg, streets, location of retail shops, available transportation systems), individual behaviors, policies, cultures, and genetics. The most successful health improvement efforts are developed and implemented by local communities. This is due, in part, to how a community is organized and the specific culture of that community. It requires people to be on local committees, make decisions, recruit others, and “do the work.” It requires a sense of ownership by community members in order to be truly successful. There is usually a stronger sense of ownership at the community level, since most community members understand how a health concern affects their neighbors, schools, coworkers, and the community.

In order to develop any comprehensive health improvement plan, health needs data should be examined to determine whether the initiative is appropriate. As the old adage says, “You can’t manage what you can’t measure.” Readily available and timely data are necessary for monitoring and assessing the initiative’s outcome. Unfortunately for communities, there are often too few meaningful data available.

A fair amount of data on some basic health indicators is available through various state and national databases. Health data are often available electronically but can be difficult to find. Having a central location for this information would be beneficial as plans are made to examine the health needs of a service area. This information would be valuable to a variety of users, includ-
ing, but not limited to, county health departments, United Way service agencies, community leaders, grant writers, government agencies, politicians, health care organizations, students, schools, and the media.

Putting health data in perspective can also be difficult. For example, which is a bigger concern for the community: obesity or tobacco? This is a more complicated question requiring a more detailed look at the data available. When a population is small, 1 death can throw rates off significantly. Having the ability to compare community data to benchmark data is a good first step.

The La Crosse Medical Health Science Consortium (LMHSC), a partnership between the 2 major health care organizations (Gundersen Lutheran Health System and Franciscan Skemp Healthcare) and 3 higher educational institutions in the La Crosse, Wisconsin, area (University of Wisconsin-La Crosse, Viterbo University, and Western Technical College), has looked for ways to use its skills and knowledge to help improve the health of the communities it serves. The Population Health Committee of the LMHSC, consisting of a member from each of the 5 organizations, as well as the local health department, has been challenged to develop a model to monitor and improve the health of the people within the LMHSC service area. This area encompasses 20 counties in 3 states. In order to develop a comprehensive health improvement plan, we felt that it would be necessary to determine priorities by examining health needs data.

Using a community scorecard developed by Waukesha County, Wisconsin, as a model, a subcommittee began to develop a scorecard for each of the 20 counties within LMHSC. Since much of the data was available electronically through primary sources, it was believed that having a central electronic location for this information would be more dynamic than a paper format and that the electronic format would allow the scorecard to expand as more data became available. The process followed to build and communicate our population health scorecard is detailed below.

METHODS

The website www.communityscorecard.com was conceptually developed by the Population Health Committee as an initiative of the LMHSC. The website consolidates data in a variety of categories (leading causes of death, accidents, cancer, health and behaviors, heart disease, infectious diseases, maternal and child health, sexually transmitted infections, and substance use/abuse) for 20 counties in the LMHSC service area (in Wisconsin: Buffalo, Clark, Crawford, Grant, Jackson, Juneau, La Crosse, Monroe, Richland, Sauk, Trempealeau, Vernon; in Iowa: Allamakee, Clayton, Fayette, Winneshiek; and in Minnesota: Fillmore, Houston, Wabasha, Winona), as well as state and national aggregates.

The website allows any user to view county, state, or national information. The scorecard uses publicly available data that are already displayed on the Internet, mainly through state data repositories, such as Wisconsin Interactive Statistics on Health (WISH). The data are abstracted from the original source as they become available and are entered into the scorecard database.

All data are reported on at the county, state, or national level for a given year. If data are available for only combined multiple years or combined multiple counties, they are not included in the database. The data are linked to—and users are encouraged to cite—the original data source. The website does not allow for additional queries such as sex-specific breakdowns but encourages the user to do so at the original source if possible.

Data are statistically compared with benchmark data. The user may choose from 1 of 3 possible benchmarks: the state’s data, national data, or Healthy People 2010 goals. We calculated a z-score for each measure compared to the benchmark. If the z-score is >1.5, the grade is “worse than the benchmark.” If the z-score is ≤1.5, the grade is “equal to the benchmark.” And if the z-score is <−0.5, the grade is “better than the benchmark.” These are denoted on the scorecard with a minus sign, a check mark, or a plus sign, respectively.

The user may view this methodology, as well as a basic tutorial on how to use the scorecard, on the website. The user also may provide feedback or pose a question back to the scorecard administrator. Basic website visit and user information is monitored by Google Analytics software.

Programming for the scorecard database and browser took approximately 4 months and approximately $20,000. It also took about $7000 worth of staff time to populate the data back to 1998. On an ongoing basis, approximately 20 hours per year, per state is required to abstract and enter new data as they become available at the state level.

RESULTS

The scorecard became available to the public March 26, 2007, although the benchmark comparison component was not available until December 18, 2007. The score-
This consolidation of data makes it easy for people seeking health statistics to find what they are looking for. It also provides a rating comparing the county data with state, national, or benchmark data for easy prioritization of health needs. The scorecard was recently used in the development of the Great Rivers United Way Compass (needs assessment) study encompassing 5 counties in western Wisconsin and eastern Minnesota. The scorecard is an example of public and private entities coming together in a partnership to develop a useful tool to make priority decisions and stimulate communication within the community.

In 1988, an Institute of Medicine (IOM) report titled “The Future of Public Health” presented strong evidence indicating that the governmental public health infrastructure was in disarray. This report examined the state of health of our nation and identified some “hidden vulnerabilities” that could affect the health status of future America, mainly the failure of public health to demonstrate its successes and the separation of public health from other important community private sectors.

Since 1991, the IOM has released more than 100 reports regarding various aspects of public health and prevention. In a 2002 report, “Fostering Rapid Advances in Health Care: Learning from System Demonstrations,” there was a call to balance and integrate needs for personal health care with community-wide initiatives that target the entire population. Also in 2002, the IOM report “The Future of the Public’s Health in the 21st Century” summarized the nation’s public health capabilities. It broadened the concept of a public health system by presenting a comprehensive framework for how the government public health agencies, working with multiple partners from the public and private sectors, can better assure the health of communities by (1) adopting a population health approach that considers the multiple determinants of health; (2) strengthening the governmental public health infrastructure, the backbone of the public health system; (3) requiring accountability from and among all sectors of the public health system; (4) making evidence the foundation of decision-making; and (5) enhancing and facilitating communication within the public health system. The 2002 IOM report clearly calls for an expanded public health system (public and private) relying on data to become more accountable to the people.

Health care has undergone—and is undergoing—a significant transition, with a push for transparency of processes and health outcomes. A variety of healthcare scorecards exist. Local examples include those by the Wisconsin Collaborative for Healthcare Quality (www.wchq.org), the Wisconsin Hospital Association’s Checkpoint (www.wicheckpoint.org), and the Leapfrog Group for Patient Safety (www.leapfroggroup.org). This transparency is intended to drive improvements in health care.

As health care and public health work together more frequently, the desire for transparency in public health should increase. There appears to be better collaboration between health care and public health when data are the foundation of the conversation. Some even suggest that rural hospitals should consider including local population metrics on their own balanced scorecard, which could increase the sense of ownership in finding solutions to the community problems identified on the
scorecard. When population health measures are part of a health care system’s balanced scorecard, strategic planning and action steps should follow.

CONCLUSION

Based on our user profiles, health scorecards generate much interest. Unfortunately, we don’t have a lot of information about our users, what information they were seeking, or if they were successful in finding this information. Indeed, there would be little reason for a user from another country or state to examine data for counties in our service area, if not to see the concepts that we’ve developed. We hope others will use this model to build an ongoing repository or scorecard for their communities.

The number of visits to our scorecard is much larger than the number of unique users, suggesting that people are making multiple visits, likely because they find the scorecard valuable. We will continue to add data as they become available. We also seek input from local organizations that are working on public health initiatives and who, in conjunction with those initiatives, may be collecting data. These organizations, such as a local mental health coalition or hunger task force, may be aware of data that could be posted to the scorecard. Community organizations may also commission others to gather data on their behalf—data that could be added to the scorecard. As community-based participatory researchers have found, the process and outcomes are enriched greatly when community partners are included in the data analysis and interpretation.8 This helps to build community capacity and increases community members’ ability to understand complex issues that affect their health.

For the future, we plan special in-depth reports about certain health topics, like the recent burden of alcohol-related injury report that was recently developed by the Injury Research Center at the Medical College of Wisconsin and the LMHSC. These reports will be more detailed, will cover multiple years, and will focus on the burden of the problem, as well as assets to deal with the problem within the community.

We acknowledge that the scorecard is far from perfect. Only health topics for which there are data at the county-year level are covered. For many health issues, such as mental health, the amount of data available is extremely limited, leading the casual user to erroneously conclude that these topics are of no concern. We will continue to work with those organizations in the community and at the state level that may have data available so the scorecard can become more comprehensive.

Feedback from users regarding how they are using the scorecard and what information they are seeking could also assist in making the scorecard more useful for the community.

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REFERENCES

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