MEETING INFORMATION NEEDS IN HEALTH POLICY AND PUBLIC HEALTH: ROLES FOR THE CENTERS FOR DISEASE CONTROL AND PREVENTION

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The presentations offered at the forum on Accessing Useful Information were thought provoking and represented a true learning experience. The presentations also characterized the complexity of the public health decision environment and the breadth of information needed to service it. "Public health information" and "policy information" take on very different meanings, depending on one's tasks and role in public health. The conference reported herein helped many participants to understand their environment better.

It was pointed out at the forum that all who deal with information in public health are dealing with imperfect information. Even when one would hope to have rigorous information, such as in notifiable disease surveillance, significant gaps exist. It is wise to remember that information needs must be measured against the purpose for which they will be applied. In fact, many good sources of information do exist; our task is to tap and leverage them better.

A number of challenges confront us. The most critical, and probably the most difficult to resolve, has to do with privacy and confidentiality. We face this problem as we seek to improve and modernize the manner in which data are gathered. The electronic patient record offers huge potential, but presents unanswered social questions. Although we do not face these problems directly when using aggregated data for policy analysis, the basis for most information we use

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derives from specific data on individuals. With the passage of the Kennedy-Kassebaum Bill, the Health Insurance Portability and Accountability Act of 1996, the social debate over these critical issues has begun. Public health has a significant stake in its outcomes.

Both the health enterprise at large and the discipline of public health have made large strides in developing standardized vocabularies that can ensure common definitions and standards of practice. However, much remains to be done before we can use electronic technologies to support electronic reporting of laboratory results and disease reporting for public health purposes.

Public health has been referred to as a "fractile" enterprise. We are by constitutional design an enterprise of numerous jurisdictions, many of which are autonomous from one another. The development of policy-level knowledge bases rests ultimately on collective action at the data and systems level. Coordination and integration between and among systems requires the coordinated response of multiple organizations, each with somewhat differing political realities, mandates, goals, and objectives, and the structure of categorical funding, while it makes our programs and goals understandable to legislators, can create artificial barriers to the collaboration needed to develop enterprise policy information. It also lacks specific support for the infrastructure needed by an information business, which public health is increasingly becoming.

What is the role of the Centers for Disease Control and Prevention (CDC) in addressing these issues? I think it is driven by and explained by our mission. First, CDC can help to forge a consistent vision, understood by our partners and accepted by our staff. Ensuring that CDC programs are congruent with practitioners' needs is necessary and has not always been easy. The practice community, of necessity, needs to integrate the data and information from numerous sources to solve problems. CDC scientific programs hone in at great depth around singular issues. We can do a better job at meeting the needs of both groups through a well-conceived vision for the future. We must play an active role in providing support for the state and local public health information infrastructure; that is, CDC must continue not only the wide range of activities that fund disease and injury prevention, specific surveillance, and information dissemination, but also new activities that will offer leadership in developing data warehouses for prevention research; test beds for innovation in data definition, collection, and access; and support for essential network infrastructure. CDC also must play an instrumental role in providing nationally relevant policy information, such as that being developed in the Guide to Community Preventive Services project.¹

Forging a consistent vision requires that CDC support model exemplar projects with the practice community. Such projects can help establish new approaches and tools, as well as pass along important lessons learned that are vital to successful replication in other locales. We also must focus on systems integration. CDC can offer leadership by bringing together its partners in public health to realize a conceptual blueprint on which future data linkages and new systems will be built. We also can promote web-enabled and other forms of decision support to ensure access to information already in hand.

Regarding systems integration, CDC must offer federal leadership. Through administrative fiat, we can offer grantees more flexibility in using their limited funds to retool their information environments to meet today's policy needs. We are funding new, additional Information Network for Public Health Officials (INPHO) state projects to fuel innovation and are embarking on an integration of infectious disease surveillance systems in collaboration with the Association of State and Territorial Health Officials (ASTHO), the National Association of City and County Health Officials (NACCHO), and the health care industry. Finally, we are joining with the National Library of Medicine to ensure that our efforts are coordinated and that the library community becomes an aid to public health practitioners.

Because the greatest gap between need and existing capacity is at the local and state health department levels, federal leadership must focus resources and initiative to strengthen their capacity and that of local and state public health laboratories. Doing this requires defining baseline levels of competence for organizations, as well as disciplines. It means we must establish curricula, provide training, establish a lasting distance learning infrastructure, and enlist the medical library community, among others, to support public health.

In summary, CDC can do and is pursuing at least four strategies to realize these goals:

1. CDC and the Health Resources and Services Administration (HRSA) recently acknowledged the need to provide greater flexibility to categorical grantees in the use of these funds to support the re-engineering, refinement, and eventual integration of their information systems. The two agencies have jointly sponsored a businesslike return-on-investment approach by which an evidence-based investment analysis supporting a plan for an integrated health information system would be developed by the grantees. The policy stresses two key principles: (1) categorical programs realize quantifiable benefits and (2) integrated systems adhere to national health

- data standards and other national security, privacy, communication, and related standards to facilitate data exchange and interoperability, as needed.
2. The nation should ensure linkage of local health departments to integrated communications networks, information systems, and data warehouses by (1) providing assistance to local health departments that lack connectivity to integrated networks, (2) expanding the Information Network for Public Health Officials to provide planning and implementation grants to all 50 state health departments, and (3) providing technical assistance to local and state health departments to ensure nationwide integration of systems and networks.
 3. We must take a leadership role in advancing the scope and comprehensiveness of training for local and state public health professionals. The nation's local and state health departments have a critical need for professional staff with mastery of core and emerging public health practice skills. However, only a small fraction of the public health workforce has had access to formal training in public health disciplines or in the skills needed for effective management and use of electronic information systems. A national initiative is urgently needed to make high-quality training available to all public health workers through a coordinated local, state, and CDC skills development program.
 4. CDC should join with other public health service agencies to expand information content offerings and to improve information dissemination techniques. Done properly, we can ensure utilization of public health practice guidelines by local and state health workers and by clinical practitioners, develop and deliver training to public health and clinical practitioners in application of the *CDC Guide to Community Preventive Services*,¹ the *CDC Prevention Guidelines*,² and other authoritative practice guidelines.

REFERENCE

1. US Department of Health and Human Services, US Public Health Services, Task Force on Community Preventive Services. *Guide to Community Preventive Services*. Available at: <http://web.health.gov/communityguide/>.
2. US Department of Health and Human Services, Centers for Disease Control and Prevention. CDC Prevention Guidelines Database. Available at <http://wonder.cdc.gov/wonder/prevguide/prevguid.html>.