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Program Collaboration and Service Integration: Implementation Successes and Challenges

Kevin A. Fenton, MD, PhD, FFPH[*], **Riley J. Steiner, MPH**[†]

[*]Public Health England, Health and Wellbeing Directorate, London, UK

[†]Centers for Disease Control and Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention, Atlanta, GA.

Health sector responses to address the overlapping epidemics of HIV and other sexually transmitted diseases (STDs), viral hepatitis, and tuberculosis (TB) have traditionally relied on the provision of highly specialized, disease-specific programs.[1] Such programs have helped deliver high-quality and effective services that have been the mainstay for the management of these conditions in many Western industrialized settings over the past half century. This infrastructure has undoubtedly played an important role in providing a base for the delivery and scale-up of prevention and control programs; accelerating the awareness, diagnosis, and treatment of these conditions; and driving significant scientific and technological advances.[1]

Nevertheless, the high population prevalence of these conditions and ongoing need for prevention, treatment, and care often outstrip the capacity of existing specialist services.[2] It is increasingly clear that these highly specialized categorical programs, although necessary, are insufficient to manage the complex, interconnected realities of today's health challenges —characterized by rapidly evolving transmission networks, multiple concurrent morbidities, population mobility, and complex social and structural contexts.[2] At the same time, changes within the health sector have made new approaches feasible. Other players including private providers, community-based organizations, and primary care providers are increasingly involved in the diagnosis and management of these conditions. Technological advances including new diagnostic tests and the emergence of the Internet as a tool to quickly and effectively link clients with services are now poised to completely change the landscape for the management of sexual and reproductive health and related coinfections. Thus, the 2 articles in this issue focusing on program collaboration and service integration are both timely and relevant.

Steiner and colleagues[3] describe the rationale for the Centers for Disease Control and Prevention (CDC) efforts to develop and implement a more syndemic approach to prevention. Launched in 2007, the Program Collaboration and Service Integration (PCSI) initiative was designed to increase appropriateness, feasibility, effectiveness, acceptability,

Correspondence: Kevin A. Fenton, MD, PhD, FFPH, Public Health England, Wellington House, 133-155 Waterloo Rd, London, SE1 8UG, UK. Kevin.Fenton@phe.gov.uk.

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and accountability of prevention programs for HIV STDs, viral hepatitis, and TB infections by leveraging new opportunities and reducing missed opportunities for collaboration and integration.[4] The CDC conceptualized PCSI as a structural intervention, focusing on changing the way in which prevention programs are designed and implemented to make collaboration between programs and integration of services a more accepted and, in some circumstances, the default choice.[4] Program Collaboration and Service Integration has been implemented across the HIV STD, hepatitis, and TB prevention portfolio of the National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention through leadership development, training and capacity building, surveillance assessment and strengthening, and the development and delivery of comprehensive and integrated prevention programs. Although the health impact of PCSI remains to be formally evaluated, implementation efforts to date have helped to advance prevention goals. Steiner et al.[3] outline a range of activities over the past 5 years, including production of guidance, development and delivery of training programs, release of PCSI-specific funding opportunities, and targeted research and evaluation, among others. Some of the major accomplishments during this period include supporting PCSI demonstration projects in six jurisdictions nationwide; integration of PCSI dedicated language in all of the Center's funding opportunity announcements; training of project officers, and leadership to promote partner awareness and acceptance of PCSI.

A number of key lessons for the successful implementation of PCSI and other syndemic approaches to prevention can be learned from CDC's multipronged effort. First, reorienting traditional vertical programs to become more collaborative or integrated takes time, in part, because the barriers are many and include: narrow funding streams, leadership and management cultures not conducive to integration, and payment and performance incentive schemes that reward provision of disease-specific services. To mitigate these challenges, the case for collaboration and integration must continue to be made through epidemiological evidence of appropriateness, integration of the patient's perspective with respect to acceptability, and impact evaluation data to demonstrate both health and cost effectiveness. Leadership engagement and organizational support for collaboration and integration is also crucial. Heads of specialized programs have a role in clearly articulating the need for integrated approaches, their alignment to their organization's value and mission, and clear expectations for progress. The most effective and dynamic PCSI sites are characterized by strong leadership and a supportive organizational culture. Finally, because integration and collaboration are not resource neutral, wherever possible, financial support to implement syndemic approaches is needed. Whether through new or realigned resources, having dedicated funding tangibly demonstrates an organization's commitment, facilitates accountability, and can help alleviate fears that integration and collaboration are expected at the expense of traditional vertical activities.

National progress on program collaboration and service integration is dependent on the coverage, scale-up, and effectiveness of local implementation efforts. Shlay and colleagues,[5] in their article "Integration of Family Planning Services into an STD Clinic Setting," also in this issue, highlight an innovative evaluation of efforts to integrate STD and family planning services in the United States. Integration of sexual and reproductive health services has taken place globally, and a range of international publications have been developed to guide

local practice.[6-10] In the United States, family planning and STD/HIV integration has been described as a promising approach to service delivery.[11,12] However, as Shlay et al. note, "few studies have evaluated direct and indirect consequences or identified clinical barriers and facilitators" of such integration, and their study adds to the evidence in support of this approach.

Shlay et al. highlight a number of key findings relevant to the PCSI implementation framework that can guide future service integration efforts. The intervention itself—implementation of electronic eligibility reminder for family planning—capitalizes on technological innovations that have provided flexibility and made PCSI efforts increasingly feasible in recent years. The authors document several measures of effectiveness including an increase in family planning enrollment for both women and men from 2008 to 2010, an increase in use of more effective contraception methods, and a decrease in incident pregnancy after 12 months, although this finding warrants caution given low follow-up. The authors also examined how integration of family planning would affect STD outcomes, an important consideration with regard to appropriateness of including family planning in the STD clinic context. They did not observe an increase in incident chlamydia and gonorrhea, although these findings also must be interpreted cautiously because of low rates of follow-up.[5]

Importantly, the authors also considered the acceptability of integration by different groups, including clerical clinic staff, nursing staff, nurse practitioners, attending physicians, and clients. Across these groups, the integrated approach was acceptable with client satisfaction remaining high and clinic staff expressing greater job satisfaction, a finding consistent with other studies identified in the review by Steiner et al.[3] Shlay and colleagues were also able to determine the additional time and cost for providing integrated services. Not only did this data collection yield useful information about resources required for such an intervention (which were minimal), but this process also helped to establish accountability by clearly documenting resource allocations. Their findings underscore how modest financial invest ments, as well as staff training and support and use of technology such electronic health records, can ensure effective and efficient integration.

Although the focus of the article of Shlay et al. is on service integration and the processes and outcomes of this approach, the authors do note program collaboration as a component of their intervention. After receiving family planning services at the STD clinic, most clients are referred to a primary care provider for further reproductive health services. Such collaboration has helped to ensure that the primary focus of the STD clinic remains providing STD services. Evaluation of the effectiveness and acceptability of such a referral model would be a valuable contribution to our understanding of the impact of program collaboration.

Both publications on program collaboration and service integration have implications for other priority integrated services (eg, integration of HIV or hepatitis C screening in STD clinics), in settings both within and outside the United States. While CDC can continue to provide leadership at the national level to support implementation of more integrated prevention approaches, this leadership will not be sufficient for sustained change. Success

also requires that local implementers have the resources, expertise, and drive to create systems to support more holistic and comprehensive models of prevention, treatment, and care. Taken together, both articles demonstrate that program collaboration and service integration have great potential to serve as a foundational approach that complements and enhances disease-specific programs and services. Making PCSI the default choice of service delivery over vertical service structures will require additional evidence of health impact and cost-effectiveness, but we have good examples to build on and a tremendous opportunity to do more.

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