

A National Health Information System:

An Opportunity to Improve Health Care in All Communities

A Discussion Paper Prepared by the Community Clinics Initiative

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Introduction

Increasingly, health information technology (HIT) is being recognized as a powerful tool to improve how health care is delivered in the United States (U.S.), and, as a result, to positively affect the quality, safety and efficiency of the care people receive. In the past year, the focus on developing a national HIT system has grown and has been accompanied by an outpouring of plans and proposals from the Bush administration, policy makers, and the private sector. These developments bring with them great promise. Yet while these policies are being developed, voices representing community health providers in low income and poor communities are not being heard.

As an organization that has funded California community clinics and health centers' efforts since 1999 to improve their technology capacity in order to improve the quality of care, the Community Clinics Initiative (CCI) believes there are important issues related to HIT in these communities that are not yet adequately addressed in the current policy debate and hopes to further stimulate discussion. The apparent absence of safety net¹ providers in the development of these plans will lead to an infrastructure that considers the needs of only a select portion of the population and its health care providers. To guard against a national health information system that chiefly benefits technology vendors, large health care providers, health systems, and insurance providers, all relevant entities need to have a seat at the table.

We recognize this pivotal moment for HIT, and we commend the efforts of policy makers and private organizations to advance this field. At the same time, CCI and our grantees share a fundamental belief that all people are entitled to high-quality health care, regardless of their ability to pay. We are committed to the development of national HIT policies that move us closer to that goal. It is in the spirit of promoting such a system that we present this paper. Because our role has primarily been to support the work of safety net providers as they improve their technology, we pay particular attention to the impact of proposed policies on those who provide services in underserved communities.

The potential for HIT is evident and appealing. It can help provide more accurate and comprehensive clinical information about patients and their care, alert clinicians and patients about potential errors, and provide tools for managing chronic disease and improving preventive care. While such technology exists, it remains far from universally deployed throughout the health care system. The information systems that are currently in use are generally incompatible, making it difficult to access patient records from multiple providers or to analyze patterns and draw conclusions across patient populations.

Current proposals seem to suggest that with modest financial encouragement, we can quickly and efficiently implement a consistent set of national standards for collecting and evaluating health information, ensure that every provider has a comprehensive electronic health record for each patient, and provide financial incentives to providers to improve care. The plans for development of a national HIT infrastructure that have been proposed by the Bush administration and others generally share the same implementation strategy, relying heavily on the private sector and the marketplace to shape the process of development, financing, and implementation of improved technology and interoperability.

Perhaps this approach will meet the needs of large, well-financed health care organizations. But experience strongly indicates that the proposals, as they are currently crafted, will fail to meet the needs of the majority of safety net providers and other small physician practices that deliver care to underserved, minority, and poor communities. A failure to focus on the needs of these providers, as HIT policies are being developed, may

1. The safety net, which includes community clinics and health centers, public and voluntary hospitals, local health departments, and private doctors working in medically underserved areas, is the primary system of care for the 44 million poor Americans who are under- or uninsured, Medicaid beneficiaries, and in need of special services.

mean a lost opportunity to improve health status in lower income communities that bear a disproportionate share of chronic illnesses. It will also mean that much of the innovation currently underway at community clinics will not inform the larger policy debate.

CCI believes that our six years of experience working with community clinics and IT innovation provide important insight for the current policy debate. In this paper, we describe the critical role these clinics play in providing health care to underserved communities and their groundbreaking work in technology innovation. Based on what we have learned, we highlight areas where current policy proposals can be strengthened to meet the needs of community clinics and the people they serve.

Community Clinics: Innovators in Care to Poor and Underserved Americans

***Who are community clinics?*²**

Long before the issue of quality improvement became a national health policy priority, millions of people in underserved neighborhoods were receiving health care focused on improving community health and ensuring the delivery of high-quality care. For nearly forty years, thousands of community-based health care providers have been delivering comprehensive primary care services in rural and urban settings where economic, geographic, or cultural barriers limit access to traditional care. These clinics differ in size, by the services they provide, the populations they serve and how they are financed. Yet they are unified in their mission: to provide high-quality primary and preventive health care services to people in rural and medically underserved areas, regardless of their ability to pay.³

These community clinics are at the core of the U.S. health care safety net. Collectively, they are caring for nearly twenty million people nationally.⁴ It is estimated that approximately 90% of the individuals served by community clinics have incomes that are below 200% of the poverty level, and 40% of the population is uninsured.⁵ In addition, about 64% of the people served by community clinics are members of racial and ethnic minority groups. In rural areas, where clinics are often the only provider of health care in large and hard-to-reach geographic areas, they provide health care to a full economic spectrum of residents. Finally, community clinics have been pioneers in providing culturally competent care to diverse communities.

The quality of the care provided by these clinics is well-documented by national studies. Patients cared for at community health centers are less likely to deliver low birth weight babies, compared to the national standard.⁶ In addition, they are less likely to be hospitalized from complications of chronic and acute illness and to seek emergency room care than a comparison group treated by other ambulatory care providers.⁷ Community clinics are also demonstrating that high-quality care can be cost efficient: the cost of treating Medicaid patients at community health centers is approximately 30% less than the cost for treating these patients elsewhere.⁸

While their origin is in the Johnson administration's War on Poverty, community health centers have proven their value to policy makers across the political spectrum. During the past three years, President Bush has

2. By "community clinics" we are talking about a diverse group of community-based providers that includes Federally Qualified Health Centers (FQHCs) or Community Health Centers; "FQHC Look-Alikes"; Rural Clinics; Tribal or Urban Indian FQHCs; Homeless Health Centers; as well as private, non-profit clinics, such as free clinics and Planned Parenthood clinics.

3. (2000). Bureau of Primary Health Care, Experts with Experience. Available at http://bphc.hrsa.gov/CHC/CHCDocuments/pdf/tenyear_report.pdf.

4. Based on the sum of the estimated number of people served by FQHCs, "FQHC look-alikes," free clinics, and Planned Parenthood clinics.

5. (2003). Bureau of Primary Health Care. Uniform Data System. The Federally Qualified Health Centers report data annually to the Uniform Data System and therefore provide the most accurate information on who is served by this type of community clinic. Throughout this paper, estimates on who community clinics serve are based on this data.

6. (2003). Politzer R.M., Schempf A.H., Starfield B., Shi L., "The Future Role of Health Centers in Improving National Health," *Journal of Public Health Policy*, 24, issue 3/4: 296.

7. (2001). Falik M., Needleman J., Wells B., Korb J., "Ambulatory Care Sensitive Hospitalizations and Emergency Room Visits: Experiences of Medicaid Patients Using Federally Qualified Health Centers," *Medical Care*, 39, no. 6: 551-561.

8. (1994). Center for Health Policy Studies. Final Report. As cited by Shekar, S. "Update from the Bureau of Primary Health Care: Strengthening Health Centers and Shaping New Future." Available at www.nachc.com/pdf/FinalNACHCCHI-September2004-4.pdf.

underscored the importance of community health centers through the *Health Centers Initiative*, which has expanded the medical capacity and services of 650 existing clinics and created 334 new community clinic sites.⁹

An outdated perception of community clinics as small, dingy, single-site operations belies the current reality of community health clinics. These clinics have become increasingly sophisticated and savvy in financial management, cutting edge health care, and technological innovation. With support from the federal government, innovative financing mechanisms, private foundations and community reinvestment, many community clinics have built new state-of-the-art facilities and expanded into multi-site delivery systems. It is estimated that in 2003, federally qualified community health centers grossed close to \$6 billion in revenue.¹⁰

Key issues about community clinics and HIT: what is different?

The financing mechanisms of community clinics are significantly different from private practitioners or hospital systems. Each clinic differs, but for the majority of community clinics, Medicaid is the primary source of funding, with other federal, state and local grants the next most important source. Unlike most private providers, little revenue is generated from private insurers or Medicare reimbursement, which traditionally has higher reimbursement rates than Medicaid. It is estimated that 40% of clinic patients are uninsured, with limited ability to pay for their own care. As a result, clinics must absorb a significant amount of the cost of uncompensated care. Even so, clinics are generally financially healthy. But few are sufficiently capitalized to manage the type of large-scale investments required by current HIT proposals, and few are viewed as strong candidates for traditional sources of financing.

The mission of community clinics and their knowledge of the communities and patients they serve have led to a different approach to primary care than is found with most private providers or large health care systems. To support improved health for their patients, most community clinics provide a wide range of “wraparound” services including outreach workers and case managers, health education programs, services in multiple languages, transportation to health facilities, and social services, including assistance with enrollment in entitlement programs. Technology systems developed primarily for private providers generally do not have the capacity to manage data to support these services.

While most private practices and hospitals have focused on care provided one patient at a time, community clinics have long recognized a responsibility to improve the health of the entire communities they serve. Community clinics have been at the forefront of prevention and population-based health improvement that identifies key health indicators requiring improvement across a community, and brings to bear resources beyond traditional primary care practices. Technology is a powerful tool in population-based health improvement, yet many community clinics report that products currently on the market fall short in their capacity to provide the type of data and analysis necessary to support these programs.

It is this experience with enhanced services and population-based medicine that positions community clinics to be leaders in the drive for quality improvement. Clinics across the country are using the power of data and technology to significantly improve their understanding of the health of their communities, to identify and reach those most at risk, and to track and enhance their efforts at community-wide health quality improvement. These programs, several of which are highlighted below, can serve as models for the rest of the health care system on how to use HIT to enhance health care quality.

9. (2004). Bureau of Primary Health Care, Health Resources and Services Administration, DHHS.

10. (2003). Bureau of Primary Health Care. Section 330 Grantees Uniform Data System, Calendar Year 2003 Data: National Rollup Report. Available at <http://www.bphc.hrsa.gov/uds/data.htm>.

In addition to improving health quality, investment at the community health center level in HIT and chronic disease care as described below is likely to reduce downstream costs to the overall health system through reduced hospitalizations and emergency room visits and prevention of costly health events, such as heart attacks and amputations from complications of diabetes.

Institute for Urban Family Health, New York City

In 2003, the Institute for Urban Family Health installed an electronic health record system (Epic) at its 13 ambulatory care sites in the Bronx and Manhattan. Currently, the Institute operates a “paperless” system in which all health records, laboratory results, and pharmacy orders are electronic.

In the past year, the Institute has documented improvements in its preventive care through the use of “best practice alerts.” When the Institute’s practice guidelines are not met, the system notifies physicians during patient visits. In addition, the Institute runs standard reports to monitor compliance with important health indicators and has employed outreach workers who can contact patients by mail or phone if there is a problem.

Among the documented improvements are a 55% increase in the rates of referrals for ophthalmology appointments in diabetic patients and a 74% increase in the rate at which patients with high blood pressure return for regular blood pressure checks. The system flags providers when tests or specialty consultations that were ordered go uncompleted so they can follow up on this critical information. Recently, the system easily identified all Institute patients on the recalled medication, VIOXX[®], who were notified to come in to discuss alternative medications.

The Institute’s electronic health record has greatly enhanced the ability for providers to engage patients in their own health care decisions. Post-visit summaries are given to patients and contain a copy of the progress note, all orders made for the patient, and a list of their current medications. Health education materials in multiple languages are available in the system’s library for instant retrieval as well.

Community Health Center Network (CHCN), Oakland, California

Using patient visit data, laboratory reports, pharmacy claims, and enrollment lists, CHCN has established a data warehouse that creates linkable data from its seven member clinics. CHCN’s programs demonstrate the potential for systems currently in place (without an electronic medical record) to support comprehensive quality improvement activities.

The data warehouse has made it possible for CHCN to implement a quality improvement program focused on eleven key clinical areas. These include diabetes, asthma, cardiovascular risk (smoking, hypertension, and obesity), well child care, chlamydia screening, and Pap smears. An audit process based on data from the warehouse allows CHCN to provide each clinic with annual reports detailing how the clinic’s practices compare to evidence-based clinical guidelines, to other clinics in the network, to their performance in prior years, and to national benchmarks and goals.

For example, asthma audits focus on clinical practices (controller medications, flu shots, and asthma control action plans) that have been shown to improve the quality of life of asthmatics and to reduce emergency room visits and hospitalizations. Each health center is provided with a report containing the number and percent of patients for whom these practices were followed, and a list of patients who did not receive or have documentation for the recommended care. Centers are informed whether practice differences are seen based on clinic site, gender, age, payor, or ethnicity. The reports make suggestions for how practice can be improved, and CHCN staff is available to work with each clinic to implement quality improvement.

Reports in subsequent years document whether there have been improvements. One clinic sent reminder letters to female patients without a documented Pap test in 1999-2001 and increased the percent of women who were screened from 56% in 2001 to 74% in 2002. In another case, based on improved documentation, there was a statistically significant increase in adult patients screened for smoking status in annual encounters from 71% in 2002 to 97% in 2003.

CHCN's programs also demonstrate an approach for linking quality improvement to a business model. Quality improvement indicators are incorporated into the formula for distributing annual risk share incentives among the clinics.

California Primary Care Association

Since 2003, the California Primary Care Association has provided two cycles of Quality Improvement Collaboratives, focused on diabetes and asthma. These are modeled after the national Health Disparities Collaboratives sponsored by the Bureau of Primary Health Care.

Through these Collaboratives, thirty-seven community clinics and health centers have implemented The Care Model and The Performance Improvement Model. To identify and track patient health outcomes, an electronic patient registry used in the national Health Disparities Collaboratives has been implemented. The electronic patient registry allows community clinics and health centers to maintain and easily access all relevant information on a target population; to schedule visits, lab tests, and education sessions; and, to generate reminders and guidance for the care of patients (both groups and individually). The electronic patient registry makes it possible to measure changes that result from variances in how care is provided.

One of the most powerful improvements evident in the California Quality Improvement Collaboratives has been the numbers of patients engaged in self-management, which is the linchpin for health outcome improvements. The redesign of the delivery system may improve clinical care, but ultimately, improvements in chronic disease rest on the individual patient who must respond to the care and maintain appropriate health behaviors. There is a growing body of knowledge and experience about successful patient engagement and an increasing recognition that patient engagement and self-management are central to the success of disease management programs. The electronic patient registry allows for the tracking of patients engaged in self-management of their chronic conditions. The community clinics and health centers in the California Quality Improvement Collaborative achieved a rate of 72.4% in this measure, compared to a national goal of 70%.

Electronic Health Records (EHRs)

Adoption of electronic health records (EHRs) is central to the implementation of a national HIT system. EHRs replace a paper medical history with an electronic record; ideally, a single record will hold a patient's complete medical history, including data from all physicians, clinics, hospitals, pharmacies, or laboratories related to that patient's care. This ability to easily access and review a complete record supports both improved quality and efficiency.

EHRs also provide the potential for quicker access to test and lab results; electronic prescribing; alerts for potential medical errors and drug interactions; and decision support for physicians through linking of patient records to evidence-based medicine and treatment guidelines.

Perhaps the greatest long-term benefit of EHRs will come through a capacity to provide real-time public health reporting and surveillance, and improved monitoring of health trends in a given population. This capacity supports improved prevention and disease management activities that can be targeted to conditions where risks and related costs are highest and most severe.

Health Information Technology: In Whose Interest?

While the possibilities for a national system for HIT have been discussed for several years, the idea was given a significant boost with the Executive Order issued in April 2004 by President George W. Bush. The Executive Order set the goal for national adoption of interoperable electronic health records within ten years and established the position of National Coordinator of Health Information Technology, currently occupied by Dr. David Brailer. In July 2004, Dr. Brailer issued a framework for strategic action to meet the Bush administration's goals.¹¹ In addition, the 108th Congress saw a number of bills related to health information technology, within the context of improving health care quality, that were introduced by Senators Jeffords, Clinton, Frist, Daschle, and others.

There have also been several recent large-scale private efforts focused on accelerating the adoption of health information technology. In 2002, the Markle Foundation organized Connecting for Health, a public-private collaborative that brings together representatives from government, industry, health care, and consumer advocates to address the barriers to developing an interconnected health information infrastructure.¹² The initiative is now jointly funded by the Robert Wood Johnson Foundation and focuses largely on engaging patients in achieving its goals. Another endeavor, founded by Newt Gingrich, is the Center for Health Transformation. Gingrich's effort focuses on the potential of HIT to improve health care, mainly from an industry and cost-based perspective.¹³

The plans for development of a national HIT infrastructure that have been proposed by the Bush administration and others generally share the same implementation strategy, relying heavily on the private sector and the marketplace to shape the process of development, financing, and implementation of improved technology and interoperability. Whether these proposals are adequate for private sector health care providers is open to debate. However, it is clear they do not adequately address the unique structures, financing mechanisms, or patient population of community clinics.

As these policies are being developed, voices representing clinics are generally not present. Many of the public and private task forces, alliances, commissions, and councils that are working on proposals and standards fail to include representatives of community clinics. The apparent absence of safety net providers in the development of these plans leads one to ask, whose interests are being served by developing an infrastructure that considers the needs of only a select portion of the population and its health care providers? Do we want to plan for a national health information system that chiefly benefits technology vendors, large health care providers, health systems, and insurance providers or one that truly has the potential to improve health care for all Americans?

CCI believes that if careful attention is paid to the seven principles below, the national HIT infrastructure that results is more likely to have the capacity to improve health in all communities, regardless of income level or primary source of health care.

1. The goal of improved HIT is high-quality health care for all Americans.

CCI concurs with the assumption that effective adoption and use of technology is critical to long-term health quality improvement. However, the complexities and possibilities for HIT are so profound that it is easy to focus on the intricacies of particular approaches and structures while losing sight of the quality goals. We are concerned this lack of focus on quality is happening with the federal debate on HIT. The starting point

11. (2004). Office of the National Coordinator for Health Information Technology, DHHS. The Decade of Health Information Technology: Delivering Consumer-centric and Information-rich Health Care. <http://www.os.dhhs.gov/healthit/documents/hitframework.pdf>.

12. Markle Foundation. www.markle.org.

13. The Center for Health Transformation. www.healthtransformation.net.

must be a clear set of quality improvement goals; the decisions about the specific technology goals and systems will flow logically from there. Decisions and strategies must be tested against how well they will support improvements in health quality for all communities, and not how well they fit into current or future technology solution offerings.

2. Sufficient funding is required.

If policy makers are serious about a national commitment to improving health quality, the current proposals, while significant, fall short. In order to gain the benefits of HIT, it will be necessary for proposals to be comprehensive and realistically address what it truly takes to bring about health quality improvement built on a stronger technology infrastructure. The lack of financial resources included in current proposals and the reliance on the private sector to ensure success suggests that a real national commitment does not yet exist.

Current policy proposals include relatively modest levels of government financial support, earmarked primarily for regional efforts and low-cost loans. In 2005, President Bush proposed \$100 million of the Federal Budget to finance HIT initiatives, of which only \$50 million was approved. For comparison, CCI has spent almost \$50 million to bring 200 California community clinics significantly along the technology continuum, but most California clinics have not yet moved into electronic health record adoption.

A recent report suggested that the cost to implement electronic health records throughout the U.S. (only one component of a comprehensive HIT infrastructure) would be between \$27 billion and \$50 billion.¹⁴ Very little of this funding is directed to community clinics or other safety net providers. A PricewaterhouseCoopers report concludes that “If President Bush pursues aggressive implementation of electronic medical records, he will have to find funding to make this possible.”¹⁵

We applaud recent comments from Senate Majority Leader William Frist¹⁶ acknowledging similar concerns: “Vulnerable patient populations cannot be left behind in this effort. Therefore, safety net providers and others who face particular financial hurdles, such as sole practitioners in rural areas, should receive special attention and funding.”

We also think there is much to be gained by a clearer alignment of the Bush administration’s *Health Centers Initiative* and their national technology initiative. Both will be strengthened if there is a commitment to financially support HIT in the *Health Centers Initiative* and a focus on community clinics in the national IT initiative. If we are truly committed to developing a national HIT infrastructure, our plans need to be commensurate with the challenges ahead.

3. Plans and financing need to build in the organizational and human cost of technology innovation.

Among CCI’s most significant findings is the recognition that organizational readiness and capacity are as critical to success with technology innovation as specific selections of hardware and software. HIT, in particular electronic health records, require significant changes in workflow, practice, staffing, and organizational culture. These changes are frequently described by both community clinics and private providers as far greater hurdles than the selection and installation of a specific technology. If the ultimate promise of HIT is to be reached, and if we are to avoid spending significant amounts of money on systems that are unused or underused, plans and funding must recognize the real financial and organizational cost

14. The Lewin Group, Bush and Kerry Health Care Proposals: Cost and Coverage Compared, (September 24, 2004) as cited in PricewaterhouseCoopers report: (2004), PricewaterhouseCoopers. President Bush’s Second Term: Prescribing Private Solutions for the Nations Healthcare Problems. Available at <http://healthcare.pwc.com>.

15. (2004). PricewaterhouseCoopers. President Bush’s Second Term: Prescribing Private Solutions for the Nations Healthcare Problems.

16. (2005). Frist, W.H., “Health Care in the 21st Century,” *New England Journal of Medicine*, 352: 267-72.

of technology innovation. Specifically, in order to be successful, proposals need to support strategic planning, leadership development, change management support, training, and the acquisition of sophisticated technological skills by providers in addition to supporting the costs associated with purchasing the technology.

As a result, we are concerned that current policy proposals are only a modest beginning step. Robust policy proposals would realistically and directly address the major obstacles facing all providers seeking to implement HIT. Additionally, they would protect the vital services provided by community clinics by paying attention to the particular needs of these clinics as policies are developed.

4. The interests of all key sectors of the health care system need to be represented as policies are formulated and financing decisions are made.

In these efforts to drive national HIT development, it seems that the valuable voice of safety net providers is missing from the discussion. The key players in these discussions appear to come primarily from within the federal infrastructure or are for-profit health care organizations. For example, to identify appropriate financial and non-financial incentives for the adoption of HIT, the Bush administration formed the National Alliance for Health Care Information Technology Advancement. The Alliance comprises representatives from Health and Human Services, the Office of Personnel Management, and purchasers and payors representing almost “200 million covered persons.” In addition, the National Office for Health Information Technology has formed a “private sector ambulatory electronic health record certification taskforce” to explore ways to develop minimal product standards for electronic health record functionality, interoperability, and security.¹⁷

The important perspective that community clinics offer differs from those represented by the private sector. Their experience with a comprehensive approach to primary care and population-based medicine and their successes in using technology to improve health quality will benefit current policy development. Their understanding of effectively caring for “hard to reach” populations can help ensure that technology solutions fit the needs of a broad population of health care consumers.

5. Over-reliance on the private market increases the risk of greater health disparities.

One of the most appealing promises of HIT is its ability to bring a common standard to all health care providers and to reward the type of population-based care that has long been practiced in community clinics. However, developing an economic model for implementation that relies too heavily on the private market has the risk of increasing rather than narrowing the gap between the safety net and private providers. CCI has identified several concerns in this area:

- Without creative financing mechanisms, most community clinics are unlikely to be able to make the type of investments related to acquiring HIT tools.
- Technology vendors have failed to develop or modify products to meet the needs of clinics interested in using technology to practice population-based health improvement.
- The primary payor for community clinics is Medicaid: a public agency. Leadership in setting incentives to implement technology and mechanisms to tie reimbursement to improved quality and performance will need to come from Medicaid.

17. (2004). Office of the National Coordinator for Health Information Technology, DHHS. The Decade of Health Information Technology: Delivering Consumer-centric and Information-rich Health Care.

6. One size does not fit all.

The strategies and tactics of the current federal framework commit to testing a limited set of specific technological and organizational approaches. The Bush administration's key strategy in promoting the interoperability of HIT is the establishment of regional health information organizations (RHIOs). RHIOs are being developed to help create a permanent infrastructure to support health information exchange and provide oversight at the local level (described further below).

Regional Health Information Organizations (RHIOs) and Interoperability

The benefit of HIT cannot be realized unless health information is able to be exchanged among providers, allowing it to move with consumers from one point of care to another, also known as interoperability. This requires a common set of data standards and infrastructures to support the exchange of health information. Without interoperability, it will be virtually impossible to create comprehensive patient records across multiple providers; to fully achieve the potential of technology to improve health care quality; or to successfully track and identify emerging diseases or other threats to the public's health.

The Bush administration's key strategy in promoting the interoperability of HIT is the establishment of regional health information organizations (RHIOs) to help create a permanent infrastructure to support health information exchange and provide oversight at the local level. RHIOs would be designed to help coordinate existing and future collaboratives and ensure that standards reflect the health care priorities of local areas.

To encourage this, the Health Resources and Services Administration, along with the Foundation for eHealth Initiative, announced \$2.3 million in contracts to support the Connecting Communities for Better Health Program. The program is providing seed funds to implement health information exchanges, including the formation of RHIOs.

The RHIO model is an appealing one. In theory, it brings to the local level the opportunity to develop a structure that meets the needs of the region, and it provides the potential for involvement of all stakeholders in the drive to improve health quality. However, based on CCI's experience and the experience of numerous community clinics, this approach raises a number of concerns:

- There is no evidence these types of regional structures are workable or financially viable on a broad scale.
- CCI's experience mirrors that of others throughout the country that although technology collaboration has the potential to provide real benefit, it is extremely difficult to structure and achieve. A significant number of providers have found the financial and human costs related to technology collaboration are not offset by the benefits that have been accrued.
- Community clinics are not being included in a number of areas where discussions, some federally funded, about establishing RHIOs, or "RHIO-like" models, are underway.

The Bush administration has also engaged the Department of Defense, Veterans Health Administration, and Indian Health Service to aid in the development of HIT programs for rural and underserved communities, primarily by adapting and modifying their own systems and making them widely available. While these approaches are worthwhile to explore, it is not clear that systems developed by large governmental bureaucracies to meet the needs of huge systems will best benefit the needs of community health providers.

CCI's experiences suggest that reliance on a single model, no matter how promising, is a mistake. It is likely that no one approach will be appropriate for all communities. Communities have demonstrated enormous creativity and adaptability in finding solutions that are appropriate for their particular needs. There is a lot to be learned by testing and assessing a number of approaches to facilitating health data exchange and setting parameters to assess and reward quality improvement.

7. Technology alone does not improve quality; it's just a tool.

In much of the current public policy debate, a shorthand language is developing that suggests that improved technology capacity brings improved health quality. While it is clear that widespread quality and health improvement must be supported by sophisticated information technology, it is a mistake to assume that the technology on its own will bring significant improvements to health quality.

What health information technology does best is to improve the availability of information to clinicians, patients, and administrators. Without significant changes in clinical practice at the organizational level or behavior change at the patient level, all technology does is provide a promise and a potential for improvement of health. However, with the corollary changes in practice, significantly improved health outcomes are achievable. Community clinics, among others, have begun to understand the advances that can be achieved when improvements in technology are linked to changes in clinical practice. An innovative partnership between the Institute for Healthcare Improvement and the Bureau of Primary Health Care is helping hundreds of clinics to improve their ability to provide care for diabetes, asthma, and depression.

A key strategy to incentivize the link between HIT and quality improvement are pay-for-performance programs. These programs reward quality improvement and technology implementation by providing payments to providers for meeting various clinical measures, mainly focused on prevention and chronic disease management, patient satisfaction measures, as well as an HIT investment. Since pay-for-performance rests on the ability to track and report on care, technology is a critical factor in the development of these models.

Pay-for-performance measures and systems developed for private providers and large systems may not appropriately address the financing mechanisms of community clinics, their patient population, or the unique service model they are using. Medicaid, as the primary source of funding for community clinics, must play a leadership role in establishing equitable and appropriate pay-for-performance measures for community health providers.

In the end, our focus should remain on the larger goal: improving the health of all Americans, regardless of their financial status. Ensuring that a national HIT system supports improved health quality and increased equity in health care delivery requires decision makers and interested parties to keep the principles identified in this paper at the forefront of the HIT debate. Each constituency listed below has the potential to positively influence this discussion.

What Needs to Happen

Community clinics need to become more actively involved in the HIT policy debate. Current decision making could dramatically affect the long-term viability of clinics and their ability to continue to deliver quality care. Many other health care interests are ensuring that they are fully represented in this conversation. Community clinics have a long history of involvement in public policy issues when the health of their communities is at risk, or when policies can lead to improvements. Clinics as well as their state and national organizations need to use their considerable policy and advocacy skills to ensure they are “at the table” as decisions are made and that their needs are fully represented in the policy development process.

Foundations that are playing a leadership role in the HIT debate can do a better job of bringing community health provider representation to their deliberative bodies and task forces. They can serve as a model for other private and public efforts. Funders who have a goal of improved community health need to better understand the potential for IT as a tool to improve health quality. Funders can be key supporters of the types of organizational and institutional capacity building necessary if HIT is to be successfully implemented in community-based settings. Community foundations that may already be involved in discussions about regional collaborations need to bring their influence to bear to ensure that community clinics are well-represented as these collaborations are being formed and to support financially the efforts of community providers to become full partners in these activities.

Advocates for America’s poor and medically underserved should consider the profound impact HIT could have on improved health for their constituencies. Efforts to reform and reshape the Medicaid program must build in financing and incentives to improve HIT. In the drive for a national HIT system, if the needs and interests of underserved communities are not addressed, gaps in quality of care and disparities in health outcomes may increase. Advocates’ voices are needed to ensure that the health of low-income Americans is a priority in federal HIT policy development.

We encourage **federal policy makers** in the Executive branch and in Congress to try to involve all constituencies. It is important to the long-term improvement of health quality. Regardless of whether or not these constituencies are yet fully vocal about their needs or extensively involved in well-funded lobbying campaigns, we need to ensure their interests are met.

Technology vendors who are developing products must better understand the scope and needs of the community health center market. The experiences of community providers in population-based health improvement can lead the way to developing more robust products that can help all health providers to achieve the full potential of HIT to improve health.

Conclusion

Ultimately, national policies on health information technology will be a balance between the goal of improving the health of all Americans, and the fiscal and political realities facing policy makers in 2005. A stronger voice from safety net providers and the communities they serve can affect where that balance is struck. Although these voices may challenge current thinking, the policies that emerge will be stronger, more equitable, and have a greater chance to transform the health care system and improve quality of care for all Americans.

About the Community Clinics Initiative

CCI is a unique partnership between the Tides Family of Organizations and The California Endowment (TCE). Through \$95 million in grants from TCE to Tides, the CCI program has been designed and implemented using the expertise in grant-making, program infrastructure, and development that Tides offers. CCI brings together resources, information, and action for strong clinics and healthy communities.

CCI believes that the integration of technology, high-quality health care, and strong infrastructure is essential for clinics to become powerful partners in building healthier communities. Through grants in IT and capacity building, CCI supports collaboration, increased capacity of individual clinic organizations, and regional and statewide networks of clinics.

Central to CCI's mission is increasing community clinics' capacity for learning, renewal, and innovation through sharing knowledge and information. CCI provides learning opportunities for both clinics and those who influence the economic and policy environments affecting clinics.

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