

# Using the balanced scorecard to characterize benefits of integration in the safety net

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The purpose of this study was to develop a comprehensive framework depicting the potential benefits of integration among health-care providers that serve vulnerable populations. Research teams interviewed participants in 12 integrated functions across seven community health-centre-led networks. Functions included clinical processes; managed care contracting; and administrative services such as human resources, finance, and information systems. Using a Balanced Scorecard framework, benefits were identified across financial, customer, internal business, and learning and growth perspectives. Financial benefits were more frequently cited relative to managed care and administrative functions than relative to clinical functions. Clinical functions were frequently characterized by perceived improvements in patient care quality, while managed-care functions appeared to yield most benefits in access. Administrative functions were most often associated with improvements in internal business operations. There were substantial findings in learning and growth across all three types of integration, in keeping with the early stages of the integrated functions in the study. Findings imply that integration among health-care providers yields a wide range of benefits, but not necessarily quickly or financial in nature.

## Introduction

Federally funded community health centres (CHCs) are ambulatory care clinics located in medically underserved areas of the USA that care for all patients regardless of their ability to pay. With historical roots in migrant and community health clinics begun during the Johnson Administration, the 890 CHCs now

funded by the Bureau of Primary Health Care (BPHC) are arguably the backbone of the US safety net.<sup>1,2</sup>

During the past decade, CHCs have faced two major threats. First, many state Medicaid programmes have transitioned to managed care, forcing health centres to compete for contracts to retain existing patients.<sup>3</sup> Second, the implementation of the Medicaid Prospective Payment System (PPS) in place of cost-based reimbursement has set payment increases according to the Medicare Economic Index (MEI), which may not cover actual increases in costs.<sup>4</sup>

A central strategy for meeting such challenges has been integration, both among CHCs and between health centres and other providers,

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defined here as centralization and/or standardization of specified activities among otherwise autonomous organizations. In 1994, the BPHC began funding CHC-led networks so that they could collectively compete for managed-care contracts. By 1997, the BPHC was also funding networks to integrate core functional areas across members, including clinical, administrative, information systems, and finance. Moreover, goals had expanded to include efficiencies supporting enhanced quality and access to care.<sup>3</sup>

### Context for study: questions about the value of integration

In 1999, the BPHC established a work group comprised of both network representatives and BPHC staff to provide support and guidance for network development. In 2000, the work group members concluded that they needed to go beyond the anecdotal characterizations of integration provided to date. There was a perception that networks were being evaluated in largely financial terms, while many of the actual gains appeared to be non-financial. Members therefore saw a need to develop a richer understanding of the full range of benefits actually experienced.

A review of the peer-reviewed literature on voluntary interorganizational relationships revealed that previous work had identified a number of potential outcomes, while stopping short of the comprehensiveness and specificity needed by practitioners. Work based on other sectors tended to emphasize increased efficiencies,<sup>5</sup> risk sharing,<sup>5,6</sup> and competitive advantage through combinations of complementary competencies,<sup>7-9</sup> as well as opportunities to learn from partners.<sup>8-10</sup> Similarly, within health care, Zuckerman, Kaluzny, and Ricketts,<sup>11</sup> noting the tendency to take a short-term financial perspective on alliances, suggested that future research consider additional benefits, including opportunities to share risk, gain resources, and learn. More recently, Provan and Milward<sup>12</sup> observed that outcomes could accrue at different levels, whose stakeholders might have mutually exclusive and even competing goals. Lasker *et al.*<sup>13</sup> further argued that benefits occurred across two stages, with synergies among partners such as improved comprehensiveness yielding measurable impacts on effectiveness.

Empirical studies in health care supported suggestions that cooperation among providers could benefit participating individuals and organizations as well as their communities. Participants in health provider networks attributed to integration increased funding,<sup>14-16</sup> reduced costs, and greater influence on public policy.<sup>17</sup> Perceived successes also included improvements in coordination of patient care<sup>14,17,18</sup> and more active outreach to the underserved.<sup>15</sup> One of the few large sample survey studies in this area also indicated that residents of areas with more public-health collaborations reported fewer problems with access to care.<sup>19</sup>

Together, these studies indicated a number of potential dimensions for evaluating the benefits of interorganizational integration. However, no one framework was sufficiently inclusive and specific to guide stakeholders' decisions. Our field work indicated that this was a critical gap, as funders worried about a lack of 'hard' evidence that integration worked, and participating organizations focused on short-term financial indices in the absence of other metrics of evaluation. This spoke of the need for a comprehensive vocabulary of integration outcomes that could serve as a basis for evaluation.

It was in this spirit that the BPHC work group decided to examine systematically the financial and non-financial benefits attributable to integration within CHC-led networks. With the help of one of the authors, the work group conducted the study reported here. In particular, the research questions addressed in this paper are: What are the financial and non-financial benefits of integrated functions for organizations within CHC-led networks, their staff, and the patients they serve? What patterns exist in terms of what functions are reported to yield which benefits? The purpose of this study was not to evaluate integration, but instead to develop a framework that would facilitate future evaluations by both practitioners and researchers interested in strengthening the safety net. To the extent that health-care providers face common challenges and opportunities, findings also have potential relevance to other ambulatory care and community-based settings.

## Methods

### Sample

The study sample was comprised of 12 integrated functions across seven CHC-led

networks around the USA. We had initially selected a total of 14 functions for study (two at each network), but later omitted two from our sample (from two different networks), one due to insufficient data and the other because it was less than a year old at the time of the study. Integration was defined by the BPHC work group as the highest of three levels of inter-organizational cooperation, ranging from 'collaborative' to 'shared' to 'integrated.' Integrated functions were characterized by centralized and/or standardized core processes such as shared staff and common data elements. The networks were chosen for diversity in geography (with networks in the Mid-Atlantic and South East regions, the Midwest, Rocky Mountains, West Coast, and Pacific Northwest), ownership (with one for-profit), structure (with one vertical network), size (ranging from seven to 18 member organizations), and scope of integration (from two to eight functions), as well as the nature of the functions integrated (including clinical quality improvement; managed-care contracting and medical management; and such administrative areas as information systems, fiscal services, and human resources). The median network age was five years (range = 3-6 years) and the median age of integrated functions was three years (range = 1-5 years).

To encourage candour, we assured all participants that we would not reveal either their individual or network identities in this paper. We therefore provide descriptive information on networks and functions at aggregated levels in Table 1 and use pseudonyms for informants' names in Table 2.

The key informant at each network was asked to arrange interviews about each of its identified functions with individuals from a

range of positions, from board level to front-line staff. Triangulating among multiple perspectives helped overcome limitations of any one informant's vantage point. People at high organizational levels, for instance, sometimes view integration processes more favourably than do front-line staff,<sup>20</sup> but may also have a broader perspective on their context. A semi-structured interview protocol was developed based on previous theoretical and empirical literature<sup>11,21</sup> and protocols from the Community Care Networks study. The protocol included prompts regarding the outcomes of each integrated function for member clinics, each informant as an individual, and communities served. The first network served as a pilot site: because only minor modifications were subsequently made to the research protocol, data from this site were included in the final sample.

To prepare for site visits, each interviewer read a profile of the network in advance, as well as the most recent funding updates submitted to the BPHC. At each site, an academic along with a practitioner spent two days interviewing three to eight people involved in each function (sometimes speaking with one person about both functions). This division of labour allowed a practitioner from another BPHC-sponsored network to engage each participant in conversation, while the research partner attended to informed consent procedures, taping, and timely interview completion.

Across the 12 functions, a total of 47 individuals were interviewed. These sessions were taped and transcribed. The teams also gathered relevant archival documents on site, including meeting minutes, budgets, organizational charts, and progress reports. Validation included a debriefing with the key informant at

**Table 1** Background on networks in sample

Attribute	Range
Locations	Mid-Atlantic (2); South East; Mid West; Rock Mountain Region; West Coast; Pacific Northwest
Ownership	All but one nonprofit
Structure	All but one horizontal
Number of members	7-18 (many of which had multiple sites)
Number of integrated functions	2-8
Age of network	3-6 years (median 5)
Age of integrated functions studied	1-5 years (median 3)

**Table 2** Individuals interviewed regarding each integrated function

Functional area	No.	Individual	Position	Clinical role?
Clinical	1	Audrey Applebee	Network CEO	Medical director
		Brenda Billig	CHC CEO; Chair, network board	
		Catherine Caulson	Network staff	
		Donna D'Adams	Network staff	
		Ellen Echols	Network staff	
		Frances Fairweather	Network staff	
Clinical	2	Gerald Garcia	Network CEO	Formerly CHC Medical Director
		Howard Hochstetter	CHC CEO	
		Irene Ivens	Network staff	
Clinical	3	Jimmy Johnson	Network CEO	Medical director
		Kelly Karr	Network staff	
		Linda Lang	Network staff	
		Melissa Miller	CHC CEO	
		Nancy Nickles	CHC CEO	Physician
		Oren O'Patrick	CHC CEO	
		Pauline Potter	CHC CEO	
		Quentin Quill	CHC CEO	
Clinical	4	Rachel Rundel	Network CEO	Medical director
		Susan Short	Network staff	
		Tom Tindale	CHC CEO	
		Ursula Underwood	CHC staff	
Managed care	5	Audrey Applebee	Network CEO	
		Brenda Billig	CHC CEO; Chair, network board	
		Catherine Caulson	Network staff	
		Frances Fairweather	Network staff	
		Valerie Vondracek	Network staff	
Managed care	6	William Wells	Network CEO	Medical director
		Xandra Xiang	Network staff	
		Yolanda Young	CHC CEO	
		Zeke Zander	CHC CEO	
		Amy Anderson	CHC CEO	
		Brent Bostock	CHC CEO	
		Cynthia Canter	CHC staff	
Managed care	7	David Dunkle	Network CEO	
		Ernest Ellson	CHC CEO	
		Frank Foster	CHC CEO	
Managed care	8	Jimmy Johnson	Network CEO	
		Nancy Nickles	Network staff	
		Gary Gluckman	Network staff	
		Harriet Hantman	CHC CEO	
		Pauline Potter	CHC CEO	
Administrative	9	David Dunkle	Network CEO	
		Ines Inhoof	Network staff	
		Justin Jelenik	CHC CEO	
		Ken King	CHC CEO	

Table 2 Continued

Functional area	No.	Individual	Position	Clinical role?
Administrative	10	Gerald Garcia Leonard Linton  Mary Masters	Network CEO CHC CEO; Chair, network board CHC staff	
Administrative	11	Nick Nettles Opie Orlando Pat Patterson Quesa Quinn Randy Reese Steve Sanders	Network CEO Network staff CHC CEO CHC staff CHC staff CHC staff	
Administrative	12	Nick Nettles Timothy Taylor Una Unger Pat Patterson Quesa Quinn Randy Reese	Network CEO Network staff CHC CEO CHC CEO CHC staff CHC staff	

each network as well as later verification of descriptive information via email.

### Analysis

Although the interview guide contained specific prompts regarding integration benefits, informants often made unprompted comments on this subject elsewhere in interviews. Therefore, all transcripts were reviewed in their entirety for references to benefits.<sup>22</sup> Eighteen transcripts addressing 11 functions were identified as containing especially rich information relative to benefits. One member of the research team 'open coded' these 18 transcripts,<sup>23</sup> beginning as often as possible with the informants' own words and iteratively refining codes to establish a common set of labels for emerging concepts.<sup>23,24</sup> Each code was defined and operationalized for clarity (listed in Table 3).<sup>25</sup>

A review of emerging themes indicated the relevance of the Balanced Scorecard developed by Robert Kaplan and David Norton at the Harvard Business School as a strategic assessment tool, because of this framework's portrayal of organizational performance simultaneously along multiple, related perspectives. Codes were therefore organized within the four perspectives included in the Balanced Scorecard: financial, customer, internal business process, and learning and growth (discussed below). After both researchers had discussed and refined these codes, each independently

coded three transcripts, achieving an initial inter-rater reliability of 82%.<sup>22</sup> Discrepancies were reconciled through consensus, resulting in further modifications to the codebook. One researcher then coded the rest of the interview transcripts and the other researcher reviewed these codes. Again, any interpretive differences were resolved through discussion.

For purposes of analysis, functions were categorized as clinical, administrative, or managed care (see Table 4). Clinical efforts tended to focus on aggregating data across member clinics to support process improvements and developing common diagnosis and treatment protocols; three of the four functions reported here were related to the BPHC's National Diabetes Collaborative, which provided additional support for this disease-specific improvement initiative. Within managed care, the research group focused on contracting at three of the four networks, and medical management (utilization review) at the fourth. Administrative functions included human resources and provider credentialing (verifying credentials for practice), as well as fiscal and information systems integration. The Bureau lists the last two categories separately.<sup>3</sup> They are included within the broader administrative category for the current analyses in order to protect the confidentiality of the networks involved (this is also why numbers are used in Tables 2 and 4 to designate functions, rather than descriptive labels).

**Table 3** Concepts relating to benefits of integration

Category	Construct	Operational definition
Level of analysis	Community/patient	Patients, either individuals or subpopulations or entire populations OR other groups in society (other types of providers, the tax-paying public) <sup>12</sup>
	Clinic	Any dynamic that occurs at the organizational level, rather than inter- or intra-organizational <sup>12</sup>
	Staff	Any dynamic that occurs at the individual level, whether collectively or for a single individual, within network member organizations <sup>12,40</sup>
Temporal: what outcomes accrue when	Short versus long term	Specific references by informants as to how long it has taken to achieve outcomes or to hoped-for versus achieved outcomes to date <sup>8</sup>
Balanced scorecard: financial perspective	Financial bottom line	Monetary consequences of integration <sup>12,15,16</sup>
	Asset utilization	Sharing investments across network members and thus achieving more efficient use of resources at the network or organizational level; can refer to physical, financial, or human capital <sup>11</sup>
	Leverage	CHCs gain power relative to external actors due to their membership in networks <sup>5,11,17</sup>
	Public visibility	CHCs affected by the public identity of the networks to which they belong <sup>41</sup>
Balanced scorecard: customer perspective	Patient acquisition/retention	CHCs, through integration, are better able to attract and/or retain patients <sup>14</sup>
	Morbidity and mortality	CHCs can attribute improvements in patient morbidity and/or mortality to integration <sup>12</sup>
	Patient care quality	Impact on services to patients, including clinical and administrative processes; everything that happens after they get to the clinic <sup>14</sup>
	Access to CHCs	Anything that affects patients' access to CHCs <sup>12,17</sup>
	Access to other providers	Patients' access to other providers, either physicians or hospitals (or other clinics); includes referral issues <sup>14,19</sup>
Balanced scorecard: internal business process perspective	Relationships with other providers	Integration improved quality of CHC relationships with physicians, hospitals, and/or other providers <sup>42</sup>
	Practice management	Efficiency/effectiveness of CHC operations improve because of integration <sup>26</sup>
	Staff workload	Impact of integration on staff workload (e.g., amount of paperwork, ability to concentrate on core job functions) <sup>6,7</sup>
Balanced scorecard: learning/growth perspective	Staff functional capabilities	CHC staff develop functional competencies as a result of integration <sup>8,11,41</sup>
	Collaborative capabilities	Structures, processes, or competencies cited by informants as facilitating current integrative efforts and/or making other cooperative endeavours possible. Not limited to individual people's competencies. <sup>42,43</sup>
	Information Systems Capabilities	Data are more readily available, openly shared, complete, and/or accurate <sup>26</sup>
	Benchmarking	Comparisons with similar entities for the purpose of performance improvement <sup>8</sup>
	Consultative expertise	Network resources provide information, guidance, and/or technical assistance to their members <sup>42</sup>
	Problem detection	Network members learn through integrated functions what isn't working about their own management/operations <sup>44,45</sup>
	Motivation, empowerment, and alignment	CHC staff more motivated, play a more active role in management, or gain a sense of context through integration activities <sup>11,14,46,47</sup>

**Table 4** Patterns of benefits attributed to specific integrated functions

Outcomes	Clinical				Managed care				Administrative			
	1*	2	3	4	5	6	7	8	9	10	11	12
<i>Financial perspective</i>												
Financial bottom line impact	✓					✓	✓	✓		✓	✓	✓
Asset utilization			✓				✓	✓	✓	✓	✓	✓
Leverage					✓	✓	✓	✓			✓	✓
Public visibility					✓	✓	✓	✓				✓
<i>Customer perspective</i>												
Patient acquisition/retention			✓				✓					
Morbidity and mortality												
Patient care quality	✓	✓	✓									✓
Access to CHCs					✓	✓	✓		✓			✓
Access to other providers					✓	✓						
Relationships with other providers					✓	✓						
<i>Internal business</i>												
Practice management		✓	✓						✓	✓	✓	✓
Staff workload			✓		✓		✓		✓	✓	✓	✓
<i>Learning/growth</i>												
<i>Employee Capabilities</i>												
Staff functional capabilities									✓	✓		
Collaborative skills	✓	✓	✓			✓		✓				
<i>Information capabilities</i>												
Information systems	✓	✓	✓				✓				✓	✓
Benchmarking	✓				✓						✓	✓
Consultative expertise		✓	✓			✓	✓	✓		✓	✓	✓
Problem detection	✓					✓	✓	✓		✓	✓	✓
<i>Motivation, empowerment and alignment</i>												
		✓	✓			✓			✓		✓	

\*Each number designates an integrated function (e.g., clinical quality improvement) within one network. We used numbers instead of more specific labels (e.g., 'electronic medical records initiative') in order to protect the confidentiality of participants, since some functions (like electronic medical records) only existed at one study network, and thus could be identified by someone knowledgeable about Bureau networks.

The result of these processes was an analysis of CHC-led integration outcomes from a Balanced Scorecard framework, adapting existing concepts as necessary to fit the safety net context. Table 4 summarizes those findings. A checkmark indicates that one or more informants attributed that specific benefit to the integrated function in question. In keeping with our goal of portraying actual benefits of integration, we excluded references to outcomes that participants hoped for but had not yet seen. We considered restricting outcome identification to instances in which two or more informants had discussed a given outcome, but rejected that standard as unduly restrictive, given that some individuals had unique perspectives on integrated functions. Given the open-ended nature of the interview prompts, mention by some individuals and not

others is more likely to indicate differential salience to people with different perspectives than disagreement. In one instance, however, one informant claimed a benefit that others interviewed about the same function explicitly denied; based on the total evidence available, we omitted that checkmark.

### Results: using the balanced scorecard to characterize benefits of integration

In addition to the financial perspective that has traditionally served as the primary metric of organizational success, the Balanced Scorecard framework includes three other perspectives believed to be causally linked to financial performance over time. The customer perspective focuses on indices of customer satisfaction.

The internal business perspective emphasizes core processes at which an entity must excel in order to meet customer expectations. Finally, the learning and growth perspective includes investments in the innovation necessary to meet new challenges over time.<sup>26</sup>

### Financial perspective

In the for-profit sector, investors evaluate financial performance to determine whether or not a given enterprise yields a competitive return on investment.<sup>27</sup> If the return is lower than that available through alternatives of similar risk, investors move their funds elsewhere. In the public sector, the evaluation becomes more complex, as return is evaluated from more vantage points, including those of the patients served and the taxpaying public.<sup>12</sup> The interview protocol for this study included prompts for perceptions of benefits at the community, network, clinic, and individual staff levels. Responses indicated that the primary focus for participants was the clinic level, understandably given that the individuals interviewed all worked in or with clinics. Comments about network benefits generally focused on how network-level activities affected member clinics. In addition, there were references to perceived benefits at both the patient and staff levels.

Within the financial perspective, network participant comments were aggregated into four categories: (1) bottom-line impact, (2) asset utilization, (3) leverage, and (4) public visibility. The first two categories relate directly to those within traditional Balanced Scorecards.<sup>26</sup> Within the bottom-line impact, there were references to both revenue growth and cost reduction, attributed primarily to managed care and administrative functional integration. The two sources of revenue growth cited were managed-care contracts and grants that would have been unobtainable by individual clinics. Some informants also cited market share benefits attributable to enhanced referrals and better patient retention. Perceptions of cost savings were mixed: some participants concluded that they had saved money, while in another instance a clinic director said that he had not yet been able to redeploy or reduce any staff as a result of shared personnel in the network.

There was also substantial uncertainty about the bottom-line impact of integration, some-

times tempered by observations that not enough time had passed to make a firmer determination: '... a piece that I still have to be provided is the financial piece of how has this investment really paid for itself and ... that is the piece that I am still, that the jury is still out on' commented a CHC CEO, while a network staff member in another study site reflected that 'There is a piece that we are still going to have to try and sort out.' In addition, in some instances, participants believed that they were saving money, but not for their own organizations. Instead, they concluded that either hospitals or their states were benefiting from better primary care.

Asset utilization refers to practices that affect how efficiently assets are deployed.<sup>26</sup> Two patterns emerged from interviews with network participants. First, they cited efficiencies that freed staff time for other purposes: 'Yesterday we had a virus come into the exchange server. And the fact that there is only one exchange server for all the centres, they closed it down, and cleaned it up right away. I didn't have to. I had no resources either ... physical assets or human resources devoted to fixing that problem. It was being taken care of here.' A second asset utilization benefit attributed to integration was the development of system capacities that small members in particular would not have otherwise developed. Enhanced capacities mentioned occurred in information systems, compliance, and research. This suggests a link back to the learning and growth perspective, with networks facilitating asset deployment to capacities that support member learning.

In addition to measures paralleling those in the original Balanced Scorecard, interviews with participants in CHC-led networks indicated the occurrence of two other outcomes that fit in the financial perspective. Two major benefits that clinics appeared to accrue from managed care integration in particular were leverage and public visibility. Leverage was mentioned primarily relative to payers as improving the terms of contracts and access needed to address problems. Referring to one payer, a participant commented, '...they start to seem more like a partner.' Another observed that their clinic was 'definitely much stronger when we go to the Blue Cross and say this is our network of providers.' Participants also believed that networks had raised the public profile and credibility of CHCs in



general: 'I think now that it's a rare legislator in the state legislature in (our state) that couldn't tell you what a community health centre is and what it's all about'; 'We have become or are being seen as the experts in delivering care to the medically underserved and specifically the Medicaid population.'

### Customer perspective

Relatively few integrated functions were specifically linked to benefits in patient acquisition and retention, although other participants noted hopes that they would see this outcome in the future. No one interviewed for this study cited clear evidence of reduced morbidity or mortality attributable to integration. This latter finding likely stems from two factors. First, the integrated functions were typically young; thus participants were generally focusing on capacity-building intended to lead to later health outcomes. Second, gains in morbidity and mortality are difficult to trace back to any organizational initiative, given the time to effect changes in these outcomes and the number of potentially confounding factors.

Clinical and managed care integration appear to play complementary roles in improving performance relative to the customer perspective, with clinical initiatives frequently associated with patient care quality gains and managed care efforts reported to improve access to providers.

Participants reported instances in which integration yielded improved data quality which, in turn, facilitated better patient care. Better information was cited as supporting both more thorough discussions with individual patients and improved processes at the population level, although at the time of the study some networks were just beginning to capitalize on these capabilities. One participant noted that 'some of the quality things (the network) can look at – who are all the patients with asthma who need a flu shot, who are all the patients with diabetes, here's a list of all the kids six months of age who don't have a visit billed from a primary care provider – meant that I think patients will get better care in (our network) than they would if they were in straight Medicaid ...'

Activities associated with managed care integration appeared to improve access both to CHCs and to other (non-CHC) providers. Networks had taken steps to improve access to

their own members in a variety of ways, including sharing data on how quickly patients were able to get appointments; encouraging clinics to take after-hours calls; and calling patients who had had hospital emergency room (ER) visits without associated primary care visits to connect them with their clinic.

Managed care integration was also associated in some instances with improving access to specialists and hospitals that had previously been reluctant to serve CHC patients. Informants described networks building better relationships with other providers by reducing hassles involved in referrals and, when possible, improving payment. For instance, networks with managed-care contracts paid specialists promptly and one network enrolled women on emergency Medicaid so that they would be insured when they went to the local hospital to deliver. The reported result was a reduction in difficulties referring CHC patients for specialty and hospital care, although substantial access problems remained.

### Internal business perspective

'For the internal business process perspective', Kaplan and Norton suggest on page 92 of *Translating Strategy into Action: The Balanced Scorecard*, 'managers identify the processes that are most critical for achieving customer and shareholder objectives'.<sup>26</sup> In this study, two relevant themes emerged. First, participants cited improvements in practice management believed to enhance efficiency, support quality improvements, and improve compliance. Second, participants observed that integration had reduced their workload in a number of ways, thus enabling them to focus on core aspects of their jobs.

Not surprisingly, every single administrative function was associated with improvements in practice management. These included more accurate coding and billing and more accurate, timely reports to funders. Such process improvements may in turn support two important financial outcomes. More accurate billing can generate substantial additional revenues, with critical financial bottom-line implications. Timely, accurate reports to external stakeholders can enhance member credibility, and in some cases were linked to funding that members believed they otherwise would not have received. In addition, some participants reported that networks had helped clinics

improve compliance. As one network staff member commented, 'I know that helps a manager to sleep better at night.' In this instance, the financial outcome is the avoided lawsuit, 'when you suddenly realize that everything is not where it should be'.

Improved network processes were also reported to reduce staff workload, thus freeing energy for other demands. One typical clinic executive director comment was: 'I'm not getting any of the contract issues... I'm not dealing with ER reports, none of that! The network is doing that for me.' A physician noted that, when other providers had used network-generated encounter forms, 'it makes it very easy to see what was done and what the problems were.' In some instances, however, individuals within networks resisted what they saw as excessive start-up costs. One information system initiative, for instance, foundered when physicians decided that they could practice more efficiently without it.

### Learning and growth perspective

The final perspective in the Balanced Scorecard includes capabilities that make accomplishments in the other three perspectives possible.<sup>26</sup> These authors suggest three categories within this perspective, which we adapt here to findings from the current study. These are: (1) employee capabilities, (2) information capabilities, and (3) motivation, empowerment, and alignment.

The first dimension that emerged within employee capabilities was 'staff functional capabilities'. Network level experts sometimes helped staff in member clinics develop skills in administration, especially relative to compliance functions. This occurred through both formal training and informal mentorship, as network staff shared their expertise with clinic employees for whom these functions were often additional duties. In addition, a second dimension emerged that related specifically to the capacity to collaborate. Foundations for continuing integration included structures such as contracts; processes, including having standing meetings; skills like keeping people engaged and communicating constructively with diverse partners; and attitudes such as a commitment to integration. Often informants reported that an initial project developed these foundations, which subsequently facilitated additional cooperative ventures.

Here again it appears that different types of integrated functions may yield different types of outcomes: growth in staff functional capabilities were only reported relative to administrative functions, yet the same functions were not associated with any gains in collaborative capabilities. Thus, it appears that integrated administrative functions may be more likely to build individuals' capacity to do their own jobs, while clinical and managed care integration may entail cooperative processes that build more collaborative skills.

Developing collaborative capabilities took a substantial amount of time, even in networks that built on longstanding previous interpersonal relationships. In part through trial and error, participants reported developing a shared ethos of cooperation: 'It used to be the Network was, oh, the Network is going to do this and that and like who cares, they are out there in left field. Maybe they will give us some money, maybe they won't. Who cares. They are just giving us busy work.... Now it's more like, we are trying to do the same thing. We are all trying to be organized. It's about being a system instead of getting a handout.'

One of the chief mechanisms for fostering continued cooperation was information capabilities. Within this category, four dimensions emerged. First, networks often yielded substantial improvements in information systems capabilities. As hard as it was to develop standardized reports across members, aggregating and comparing did result in improvements in clinic-level data as well as new abilities to track population-level trends. Second, shared data offered members opportunities to benchmark themselves against other CHCs. In addition to these two information resource outcomes, two others emerged that were distinct to the study's cooperative context. First, network staff provided expertise that complemented that within clinics. In this sense, network staff provided human information resources that complemented advancing electronic information resources, for instance, helping clinic CEOs prioritize their corporate compliance efforts.

The last information capability that emerged from participant comments was problem detection. This refers to instances in which network staff members identified weaknesses at the centre level. Sometimes, these related to systems that clinic staff had thought were working but which were in fact inadequate.

For instance: 'To go in there and basically say you don't have the QI program, you don't have one. Here's your report and you don't have one... and then to allow us to come in and help them build one and put one in place. I don't see how without the network that would have happened.' Other times individual staff practices were decreasing revenue or posing risk-management threats, for instance, coding inaccurately, or making unduly frank comments in medical charts. Participants felt that these constituted real learning opportunities, especially when network staff provided substantial feedback about how to correct the deficiencies.

Finally, we found instances of motivation, empowerment, and alignment. Participants spoke of their own experiences in terms like 'I'm really enjoying learning from (the other network members)' and 'It's been quite a learning experience' and linked improved morale among front-line staff to network initiatives ('a lot of staff that are really interested and involved'; clinicians at a national collaborative meeting 'came away charged'). Integration was also seen as fostering empowerment by identifying and supporting line staff in clinics as leaders in change efforts ('It's really put people in charge'). In two networks, this took the shape of physicians playing a more active role than they traditionally had in decision-making, a change that informants saw as healthy.

Evidence of alignment emerged in participant comments about opportunities to learn about the contexts within which their clinic efforts were occurring, at both the network and national levels. One medical director observed that the network 'has helped me to put my own center's problems in perspective.' Speaking of a Bureau-sponsored conference attended by her network's quality improvement coordinators, another noted, 'it gave them a sense of context.' Often, network initiatives seemed to align interests in shared, actionable goals: 'it really brought together a group of leaders and said this is what we're trying to do.'

## Implications for research and practice

The findings of this study are consistent with previous studies of cooperation among health-care providers,<sup>14,15,17,19</sup> but differ in two respects. First, we identified a greater range of benefits than had any single previous study.

Second, using the Balanced Scorecard framework, we organized outcomes into a more useful set of related perspectives than had previous conceptualizations.<sup>11-13</sup> These contributions should both facilitate more focused future research and support more realistic integration efforts.

CHC-led networks appear to yield a range of benefits for their members as well as the communities they serve. Viewed from a Balanced Scorecard perspective, links emerge across perspectives, with learning potentially leading to improved internal business processes, leading to better service to both internal and external customers, finally improving financial outcomes.<sup>28</sup> For instance, as illustrated in Table 5, standardized disease management protocols may facilitate better documentation, more consistent and comprehensive patient care, and better patient retention and outcomes (with resulting reduction in long-term health-care costs). One network in this study sent secret shoppers to its member clinics as part of their managed-care contract services. These revealed problems with check-in processes, such as inaccurate information from receptionists about eligibility for care, that clinics were able to address, thereby potentially gaining more paying patients. Finally, one administrative function reported in this study was credentialing for member clinics. When such paperwork is streamlined, it may not only be completed more accurately, but also may reduce burdens on clinicians and staff, as well as save clinics money. Each of these cases, while grounded in this study's data, is speculative: we have not tested the causal chains outlined here. These possibilities do, however, have two important implications. First, investments in learning, internal business operations, and customer satisfaction may lead to financial benefits over time. Second, however, such sequences may unfold slowly.

Kaplan and Norton<sup>26</sup> note that organizational objectives should vary according to the stage of any given enterprise within its lifecycle. Applied to the current context, this means that early in their evolution, integrated functions are in the 'growth' stage, which requires heavy investment in learning. Indeed, during this phase, an emphasis on cost savings can actually undermine growth. Later, integrated functions move into the 'sustain' stage, during which financial measures become more important.

**Table 5** Potential evolution across balanced scorecard perspectives: illustrative examples

	Learning and growth	Internal business	Customer	Financial
Clinical	Member clinic medical directors develop common protocols for high burden disease conditions	→ Common processes facilitate more efficient, complete documentation	→ Patients get more consistent care, both across providers and across visits with the same provider	→ Clinics benefit as patients stay even insurance allows pay options; patients miss less work; insurers pay less
Managed care	Network sends 'secret shoppers' to clinics as a service related to their managed care contract discover receptionist telling patients they can't come if they have insurance	→ Receptionists provide more accurate information to patients about payment options	→ More paying patients come to clinic	→ More patients keep appointments and provider productivity improves
Administrative	Network staff manage provider credentialing for member clinics using common forms	→ Providers credentialed more quickly and accurately; clinic staff do their core jobs more effectively because they do not have this as an additional duty any more	→ Physicians and nurse practitioners – internal clients of the system have less paperwork hassle, given streamlined process	→ Lower cost per clinician of credentialing

Analyses of interviews with participants in CHC-led networks suggest that, early in their life cycle, most integrated functions yield more benefits in organizational capacity than in financial impact. Much of what appears to happen early in integration processes is development of relationships and skills necessary to proceed. Within the financial perspective, networks develop the leverage and visibility needed to negotiate successfully with payers and to shape legislation. Asset utilization improves, but may not yet translate into cost reductions. Within the customer perspective, networks develop better referral relationships with other providers, better customer service in their own clinics, and the data capacities to support clinical improvements. Within the internal business perspective, networks improve practice management and staff members see concomitant efficiencies in

their work. Finally, learning occurs at both the individual and organizational levels, as staff gain skills and clinics develop processes for sustained integration.

The problem is that organizations do not integrate primarily in order to learn. Instead, executives and boards approve network formation for strategic and financial reasons, hoping to compete successfully for managed-care contracts, increase market share, secure new grants, and reduce costs.<sup>29</sup> Ultimately, for networks to survive, decision-makers must see benefits for their member organizations.<sup>30</sup> In the absence of such assurance, networks rely on an ethos of commitment that does not always prevail. One informant commented on '...how stunned I was at the rejection of what was a pretty good contract by a very significant clinic because when she took out the admin fee

she wasn't as well off as she was before so she walked away from it. Not taking into account any of the peripheral value of all of us going into that contract together. And that just, it hadn't occurred to me that someone was going to define it that narrowly. Yet there are clinics that do.'

One implication of this study is that participants in integration need to develop a more complete understanding of the benefits thus accrued. This does not mean that all functions should be integrated – some will not merit the costs, which are clearly substantial – but a better understanding of outcomes should inform more informed decisions about what to integrate. Even in the early stages, integration appears to yield substantial benefits for organizational-capacity development. This is vitally important to safety-net providers that have sometimes operated with thin management infrastructures.<sup>31</sup> There is additional urgency in the case of federally funded CHCs in particular, given President Bush's ongoing plan to increase the number of patients they see annually from ten million to 16 million within five years.<sup>32</sup> To the extent that integration strengthens the management capacities of individual CHCs, it may play a vital role in helping them use new resources effectively.

Leaders of integrated efforts must also communicate to stakeholders what they can expect and when. An integrated function is in essence a new business venture, and must be allowed substantial time to reach maturity.<sup>8</sup> Individuals interviewed for this study often explicitly acknowledged that, but would benefit from better information about how long different types of integration may take to mature under differing circumstances. Executives in other health-care organizations that have used the Balanced Scorecard have reported that the framework helped them gain consensus on strategy.<sup>33,34</sup> Perhaps applying the Balanced Scorecard framework to potential integration activities can help decision-makers develop a clearer sense of potential outcomes and the investments they need to make to achieve them. Ideally, the metrics used to evaluate integration will be clear, but not too rigid to allow redefinition as new outcomes emerge.<sup>8</sup>

An additional complication is the fact that networks often benefit actors other than those who pay for integration. For instance, better

primary care for the poor results in fewer admissions for which hospitals are often under compensated.<sup>35</sup> Some forms of integration may therefore be good public policy – but that does not ensure their survival when cash-strapped clinics bear all the costs. This implies the need for future research that rigorously quantifies the public goods generated by integration so that results can be demonstrated to funders. Perhaps with sufficiently compelling evidence of positive societal outcomes, funders may overcome their hesitation to support operational funding. Another possibility is that specific evidence about benefits to other providers can be used in negotiations to secure from them some share of network costs.

## Conclusion

The current study indicates that integration may yield substantial benefits in organizational-capacity development for CHCs, but does so slowly, with uncertain early financial outcomes for member entities. CHCs that have joined networks often proceed based on a sense among leadership that cooperation is congruent with their mission to serve the disadvantaged. Integrating core functions such as clinical improvement and information systems across multiple organizations is enormously complex and difficult. Clinics that are considering integration should consider the full range of outcomes they may achieve, as well as a realistic appraisal of the costs. Learning and communicating more about what benefits whom and when will strengthen these efforts and help stakeholders achieve their goals.

These findings are particularly relevant to safety-net providers, given similarities in the threats they face,<sup>36,37</sup> as well as to other types of health-care organizations that have constrained internal resources because of size. For instance, smaller hospitals are less likely than their larger counterparts to have strategic information systems.<sup>38</sup> They may therefore also achieve otherwise unobtainable learning benefits such as problem detection from integration. The Balanced Scorecard framework would also apply to integration among larger, non-safety-net providers, although the patterns within and across perspectives would likely differ from those reported here.

In a recent issue of this journal, Henry Mintzberg asks rhetorically: 'Is the NHS in the UK or Medicare in Canada a system, let alone healthcare and disease cure in the United States?'.<sup>39</sup> The answer is clearly no, and the costs for vulnerable populations in particular can be very high. Many practitioners in the safety net believe strongly in the need for greater integration among providers. By using a more comprehensive framework of specific potential benefits, we may proceed to evaluate – and selectively promote – such processes more effectively.

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