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An Early Analysis of the Growing Phenomenon of Local Government-Operated Worksite Health Clinics

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Abstract

The continuing rise in health insurance costs and increasing fiscal constraints driven by the 2007-2009 economic recession have forced local governments to make cuts in employee benefits, as well as services to the public. One result has been the development of on-site health clinics, which have grown in popularity in the private sector. This research analyzes the use and benefits of these clinics as a relatively recent phenomenon in local governments in the United States and demonstrates that worksite health clinics hold potential not only to control costs for local governments but also to improve employee health.

Introduction

Average annual premiums for health insurance more than doubled from 2001 to 2011 (Kaiser, 2011, p. 30) at the same time that local government budgets have been slashed by significant and ongoing losses in property and sales tax revenues (Gross, Huh, Sylvester, & Zahradnik, 2012). Public benefit plans often constitute a larger percentage of employee compensation than in the private sector (Cox, 2011, p. 2; Falk, 2012, p. 8; Kaiser Family Foundation, 2012), and while many private companies are passing along the rising health care costs to their employees, governments have been less likely than their private sector counterparts to do so (Kavanaugh, 2011, p. 2; Claxton, Rae, Panchal, Damico, Lundy, Bostick, Kenward, & Whitmore, 2012). Insurance for individuals costs up to eight percent more and family coverage up to 20 percent more in public plans than in the private sector, and public sector employees generally contribute less to both premiums and co-pays and often have shorter waiting periods before coverage begins (Barro, 2011, pp. 2-5). The passage of the Patient Protection and Affordable Care Act of 2010 includes mandates for preventive coverage with no co-pays, coverage of employees' children up to age 26, and prohibitions on coverage limits for essential services, among other requirements, that are expected to further increase costs to both fully-insured and self-insured health plans.

With 71 percent of local governments reporting pressure to turn the trend line on these rising health costs (ICMA, 2011), an increasing number of public employers are exploring the use of employee health clinics as a potential means of controlling costs and improving employee productivity (Tu, Boukus, & Cohen, 2010; Spero, 2011; Sherman and Fabius, 2009). Although company doctors and occupational medicine are not new, modern clinics provide much more comprehensive services, and in the best cases, are "fully-realized medical homes and integrated medical management engines" (Klepper, 2011). A recent survey of 1,500 municipal and county governments with populations of more than 10,000 indicates that nine percent of local governments now provide worksite clinics with an additional 12 percent considering implementation (ICMA, 2011).

Worksite clinics have the potential to help public employers contain costs in five primary ways: by moving away from the standard fee-for-service model of private care; by making less-costly primary care services accessible and affordable[1]; through direct contracting for labs and generic drugs; by taking

[1] Less clear is whether more prevention gained by greater access means more savings or higher costs for services (Russell, 2009; Cohen, Neumann, and Weinstein, 2008).

advantage of the potential for prompt identification of worksite specific issues for "real time epidemiology" (Nash, 2005, p. 24); and by establishing patient-centered medical homes that foster disease management and promote wellness activities.

If the primary goal of worksite clinics is to save money, however, there is little documentation of success. Sherman and Fabius note:

> [T]here is remarkably little evidence . . . that provides quantitative support for the value of nonoccupational worksite clinic services. Methodologic approaches to measurement of return on investment (ROI) vary widely. . . . As a consequence, employers are faced with a confusing dilemma regarding measurement of worksite clinic value, notably from vendors who may provide higher estimates to encourage business development (2012, p. 394).

Compounding the lack of quantitative evidence is the relative "newness" of local government clinics, scarcity of research on the topic, and the lack of a systematic method for data collection and interpretation (Larry Boress, Personal Communication, January 2013) for local governments to determine real savings.

The primary purposes of this research are threefold: to provide descriptive information on the scope of care and practice of the sample of local government clinics participating in the survey; to determine if operating clinics participating in the survey have derived return on investment through their worksite clinics; and to provide a preliminary look at how local governments that are operating clinics perceive the efficacy of their worksite clinics.

The Promises of Worksite Clinics

Moving away from the fee-for-service model of care. On-site clinics are, to a great degree, a rejection of health care as is currently practiced in most community settings and constitute what Chase describes as a "disruptive model of care" (2011). Worksite clinics that operate on a cost-plus or contract fee basis remove incentives inherent in the fee-for-service reimbursement model to "do more, bill more" (Chase, 2011). Savings may be achieved by removing much of the cost of the claims payment function. Chase estimates that the cost of the "insurance bureaucracy tax" is as much as "40 percent" (2012).

` Clinic provider Novia executive Bill Crimmons reports:

> Generally speaking, the savings are significant. . . . Most family practice doctors in private practice must charge about $500 to $600 per hour in billable charges to earn $100 an hour. In our clinics, we're running at $289 an hour, with only three visits per hour and the doctor still earns $100 an hour. That's roughly 50 percent savings (Byrne, 2009, p. 4).

Direct contracts for labs and generic drugs. Further savings may be derived through contracted services for labs and other diagnostic services and bulk purchase of generics. The City of Valdosta, Georgia, for example, contracts for a flat rate for all lab tests at a fraction of the costs at local doctors' offices, where there is a mark-up on lab fees to pay for lab staff and interpretation and profit margin (Larry Hanson, Personal Interview, August 2012). Generic drugs can often be purchased less expensively by a clinic than through group health plans, which may garner financial benefit in higher costs of

pharmaceuticals when they own the mail order pharmacy or the pharmacy benefits manager program (Brian Klepper, Personal Communication, August 2012).

Making primary care accessible and affordable. By refocusing on primary care in the worksite clinic in lieu of specialty care in the community, savings can be achieved. "[P]rimary care physicians achieve better generic (that is, not disease-specific) outcomes than do specialists at much lower costs, even though specialists may achieve better 'quality' of care in their particular area of competence" (Starfield, Shi, Grover, & Macino, 2005, p. W5-102). Bias built into current payment systems in the U.S. has resulted in higher reimbursement for specialists than for primary care (Sandy, Bodenheimer, Pawlson, & Starfield, 2009; Yurk, Christensen, & Wright, 2008), costs that are multiplied when employees seek out specialists first. Nash (2005, p. 67) describes shifting health clinics toward primary care as the "low-hanging fruit" in achieving savings. Chase puts it even more directly: "more primary care = healthier population = less money spent" (2011).

Immediate access, short-wait times, and no or very low co-pays may foster increased use of primary care at the worksite clinic. Port St. Lucie, Florida city employees, for example, are allowed to stay on the clock during visits because their clinic operates so efficiently that employees are seldom away from work for more than one hour (Balona, 2009). Employees are also attracted to the "one-stop shopping aspect" that is available in some larger clinics, where ancillary services, including dispensaries, are on site. A 2009 study comparing chronic medication compliance between community and worksite clinics found that medication compliance at on-site clinics was almost ten percent higher than in community settings; such compliance "can significantly lower overall healthcare costs . . . [and] improve the lives of chronically ill patients" (Sherman, Frazee, Fabius, Broome, Manfred, & Davis, 2009, pp. 53, 57).

Occupational health. Occupational health within the worksite clinic may also provide opportunities for savings. Some researchers believe that "[i]n-house medical personnel . . . have a better understanding of the interaction between an employee's health, his or her ability to perform the job, and the culture of the company" (Pachman, Stempien, Milles, & O'Neill, 1996, p. 1048). Awareness of job duties may help with return to work or limited duty assignments that keep experienced workers on the job and may help reduce turnover and expensive workers' compensation claims.

Worksite clinics as medical homes. Local governments increase the potential for savings and improved quality when they create an "environment where financing and provision of services are integrated," and where "primary care providers serve as 'gatekeepers', an important role in controlling cost, utilization, and the rational allocation of resources" (Shi, 1995, p. 428). Access to claims data from within and outside the clinic, the use of predictive analytics, and population health data can be used to guide health plan changes and incentives that control costs, while electronic health records and case management can foster improved care and outcomes (Office of the National Coordinator for Health Information Technology). At QuadMed, an early implementer of worksite clinics in the private sector, when population statistics indicated that "obesity was a major contributing factor to healthcare spending" (McCarthy & Klein, 2010, p. 5), the company adjusted its benefit program to encourage participation in weight-loss and

diabetes management programs and encouraged participation in wellness programs focusing on weight loss. Population health data tracking also provides a means for establishing accountability for clinic staff and vendors and allows the organization to set internal and external goals that can drive performance.

Care within a medical home offers “the ability to change practice patterns, such as drug prescribing, ordering of tests and procedures, and specialist referrals, along with the potential for early diagnosis and treatment to avoid [emergency department] visits, hospitalizations and other costly downstream complications” (Tu et al., 2010, p. 4). Provider familiarity with the patient also allows for identification of patterns that may indicate a new health risk to the individual patient; reducing expensive redundancies in care; encouraging compliance and wellness; and recognizing “potentially adverse effects of medical interventions” (Starfield et al., 2005, p. 487). Some companies integrate the company’s wellness program with a clinical focus on “physical activity, weight loss, smoking cessation, and early identification and control of diabetes, as well as risk factors for cardiovascular disease” (McCarthy & Klein, 2010, p. 1). Worksite clinics as medical homes may also reduce costly “defensive medicine” that results from the lack of any longitudinal doctor-patient relationship of trust that is a foundation of primary care.

Return on Investment

Lack of quantitative data and any national benchmarks for calculating return on investment (ROI) (Sherman & Fabius, 2012, p. 394) make it difficult to determine the cost effectiveness of worksite clinics. Despite the fact that well over half of operating clinics continue operations as a means of improving productivity and reducing costs, “more than half either don’t know (39 percent) or don’t track (14 percent) ROI” (Towers-Watson, 2012, pp. 1, 4). Industry reports of ROI for worksite clinics range from one to four years, depending on the initial capital investment in office space (Canadian Medical Association Journal, 2011; Liddick, 2005; Moore, 2011). Other private sector clinic ROI studies appear in Table 1.

Table 1. Worksite Clinic Successes

Organization	Success	Report of Findings
Pitney Bowes	For each dollar spent on clinics, the company has “achieved savings of $1 in care costs” and “another $1 in increased productivity”	Chordas, 2009, p. 75
Syngenta Crop Protection	Clinic “provides employee health care services two to three times more cost-effectively than do off-site health care clinics.”	Chenoweth & Garret, 2006, p. 84
CareHere Clinic (Clinic Vendor)	Helped their clients decrease the health care costs growth trend by half	Mooradian, 2008
CHC Meridian (Clinic Vendor)	50 percent decrease in hospital admission rate; 42 percent reduction in hospital outpatient services; and 32 percent reduction in overall claims	Levy, 2007, p. 52
Take Care Health (Clinic Vendor)	Reports “a $2-to$4 return on investment for every dollar spent” by clients	Chordas, 2009, p. 75
Briggs and Stratton	Cut emergency and urgent care visits by half; stabilized health care costs	Moore, 2011, p. 17

A national survey of larger private companies found that only 25 percent of employees used worksite clinics that were available to them (Hewitt, 2008, p. 14), although some organizations report much higher participation. Higher participation can reduce the costs of managing outside claims and improve ROI.

Challenges to Clinic Success

Local governments considering worksite clinics face challenges in start-up including: approval for capital for an office location and medical equipment; cost of promotional efforts for employees; and, if a vendor contract is in place, minimum revenue agreements for some initial period. Governments may also experience push-back from local providers and institutions that see worksite clinics as competitors. Byrne suggests that “[m]any worksite clinics must employ independent physicians rather than navigate accusations of scavenging business and conflict of interest” (2009, p. 2). Local governments in smaller communities should consider the potential of negative economic outcomes that could result if their worksite clinics “have a detrimental effect on the viability of other community physician practices, in which the patient mix would shift toward a greater proportion of those covered by Medicare and Medicaid, which tend to pay lower rates than commercially insured patients” (McCarthy & Klein, 2010, p. 10).

Employers must ensure arms-length handling of individual medical records to foster employee trust (Towers-Watson, 2012). Long-established “corporate practice of medicine” prohibitions set out by the American Medical Association warn physicians to avoid situations in which the “physicians’ judgment may be influenced by a business’ motivation to reduce costs and maximize profits” (Gorman & Miller 2011, p. 487).

Worksite clinics are also subject to compliance programs, HIPAA regulations, state medical board and nursing guidelines for licensure, staffing, and oversight, workers’ compensation laws, pharmacy board dispensary rules, OSHA and other safety regulations, public building mandates for access and egress, patient referral laws, laboratory regulations, and health inspections (Gorman & Miller, 2011; Oliphant & Murray, 2012; Savely, Hamilton, Degani,
Weinberg, & Muraca, 2011). Oliphant and Murray (2012, p. 65) also warn employers that such clinics may “implicate employee benefits laws,” which may include risk of losing “grandfathered” plans that are an option under the 2010 Patient Protection and Affordable Care Act. These regulatory matters should be discussed with the attorney and hashed out in any contract with a vendor, or if the local government is operating its own clinic, should be part of planning.

Methodology

This research is intended primarily to serve as a descriptive study of the early stages of what appears to be growing trend in the use of worksite clinics operated by local governments. A sample 100 cities and counties in the United States that currently have operating clinics was gathered from newspaper accounts of clinic openings, from internet searches for “worksite clinics” or “onsite clinics,” and from clinic vendors who work with city and county governments.

City and county governments identified as operating clinics were initially contacted by phone to confirm the operation of a worksite clinic and to determine the appropriate person to receive the survey. Letters were mailed with two follow-up emails sent with survey links in the effort to improve the response rate.

Survey questions included descriptive data, as well as direct questions on clinic cost-effectiveness in cost savings, enhanced employee health, and employee productivity. Forty responses were received, although, as might be expected from findings of Sherman and Fabius, quantitative responses related to costs were substantially fewer due to lack of an industry-standard methodology for calculating savings. To supplement and further verify the collected financial data, health care expenditures were gleaned from the budgets of 23 of the local governments invited to participate in the survey. Much of the information derived from the survey is descriptive and may serve as a means of analysis for clinics considering opening their own clinics.

Results

Descriptive data from responding clinics. Of the responding local governments with operational clinics, all are large employers, as might be expected since clinics are "feasible only for employers with at least several hundred workers in one location" (Andrews, 2011). Only four of the 37 governments reporting number of employees have fewer than 450 employees, and 88 percent are self-insured. The mean age of respondent clinics is 3.2 years with a standard deviation of .51, and a median of 3. Key attributes of the responding clinics gleaned from the survey appear in Table 2.

Table 2. Key Attributes of Worksite Clinics

Clinic Management (n=40)	Management Vendor: 33 (80 percent)
	Independent Medical Provider: 5 (13 percent)
Clinic Compensation (n=40)	Actual cost of service + fixed management fee: 18 (45 percent)
	Fixed rate per an annual contract: 8 (20 percent)
	Per full-time employee: 5 (12.5 percent)
Share with another entity (n= 40)	No: 28 (70 percent)
Clinic Access (Lives Covered) (n=37)	Employees: Mean – 1,109; Range – 300-6,000
	All: Mean – 2,265; Range – 360-12,000
On-site Dispensary (n-33)	Yes: 17 (51.5 percent)
Of these	Generic drugs only: 15 (88 percent)
	Generic and brand drugs: 2 (12 percent)
Clinic Operation in hours per week (n=33)	More than 20 but less than 30: 7 (21 percent)
	More than 30 but less than 40: 11 (33 percent)
	More than 40: 12 (36 percent)

Clinic staffing (n=34)	MD or DO: 22 (65 percent) Medical Assistant: 20 (59 percent) Nurse Practitioner: 16 (47 percent) Registered Nurse: 12 (35 percent) Physician Assistant: 11 (32 percent) Clerk: 9 (27 percent)
Clinic supervision (n=31)	Physician: 16 (52 percent) Nurse Practitioner: 7 (23 percent) Nurse: 3 (10 percent) Non-clinician: 5 (16 percent)
Average office visit (n=31)	Minutes: 20.35
Average time from appointment to visit (n=34)	Same day: 16 (47 percent) Within 24 hours: 10 (29 percent) 24-48 hours: 7 (21 percent) More than 48 hours: 1 (3 percent)
Types of reports (n=32)	Employee and family member use: 27 (84 percent) Population level/Quality metrics: 25 (78 percent) Financials: 22 (69 percent) On-the-job injury visits: 8 (25 percent)
Frequency of reports (n=32)	Real-time Dashboard: 8 (25 percent) Monthly: 21 (66 percent) Quarterly: 15 (47 percent)
Office Co-pays (n=34)	$0: 31 (91 percent)

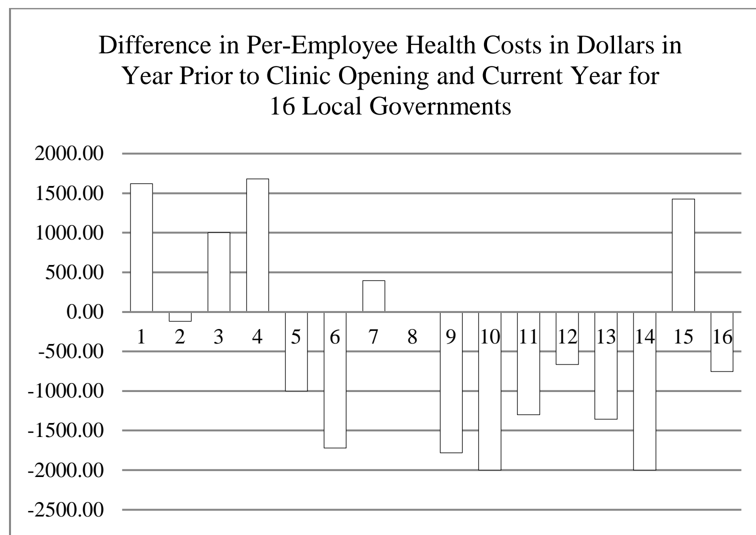
More than eight in ten respondents report that at least 40 percent of eligible employees have used the facility at least once in the last year, considerably higher than the 25 percent reported for private companies (Hewitt, 2008, p. 14). There was no statistically significant relationship between after-hours access or total clinic hours per week and the percentage of employees that access the clinic, or between the age of the clinic, number of covered lives, and employee utilization.

Cost-effectiveness. Respondents report the top three reasons for opening worksite clinics, in priority order, are the following: to reduce medical costs for the employer; to reduce costs for employees; and to enhance employee productivity. There is evidence that employees are saving money: of 34 governments responding to a question about co-pays, 91 percent indicated that their clinics have $0 co-pays. Confirming return on employer investment in the clinic is more complicated, due in part to the fact that many employees use both community and clinic providers, and pinpointing the source of savings is difficult. According to Larry Boress, the Executive Director of the National Association of Worksite

Health Centers, cost savings are “often . . . the hardest to quantify” (Personal Communication, January 2013). Only 16 clinics of the 40 respondents provided specific data on cost savings when asked to report before-clinic and after per-employee costs. Ten of the 16 clinics experienced decreases in per-employee expenditures, the mean savings $1269, and one had no change in the current year over costs prior to clinic implementation.

In a separate analysis of 23 governments previously noted, six reported a decrease in per employee health care expenditures over a similar period. These results offer inconclusive support for the assertion that on-site clinics may reduce overall health care expenditures for employers.

Figure 1. Before and After Comparison: Health Expenditures Per Employee Before Clinic Opening and Current Year

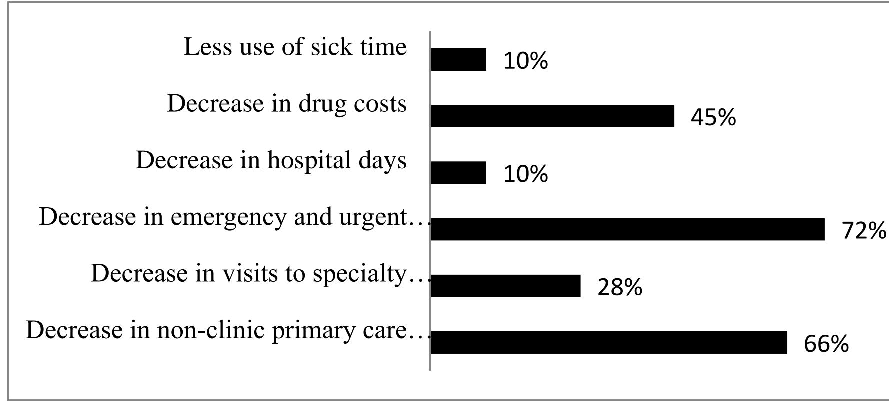


About 45 percent of responding governments pay the costs of clinic care plus a vendor or contractor management fee, which ranges from $5 to $33 per month depending on what is included. Twenty percent have a fixed annual fee, and 12 percent pay a per- employee per-month charge.

Other direct savings may be achieved through ancillary contracts and onsite services. Just over half, 51.5 percent, of the clinics operate a dispensary, and the majority of clinics limit pharmaceutical choices to generics only. Of 17 respondents who keep such data, 82 percent reported that their drugs purchased for the dispensary cost less than drugs purchased through the health plan.

While return on investment is not well quantified, respondents were able to report cost avoidance and indirect savings attributed to clinic implementation. (See Figure 2.)

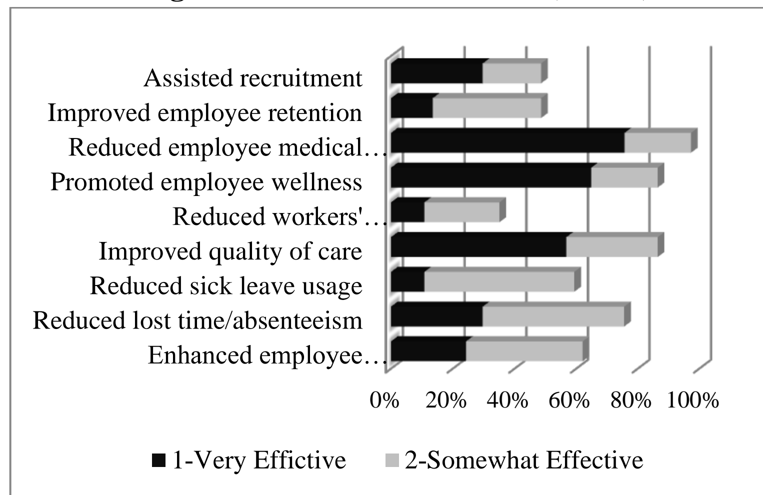
Figure 2. Percentage of Government Respondents Reporting Indirect Cost Savings After Clinic Implementation (n = 27)



Most clinics are receiving management reports on clinic use: 84.4 percent say that they track use by the clinic by employees and dependents; 78 percent gather population-level health status and other quality metrics; 68.8 percent track financial impact of the clinic; and 25 percent are notified of on-the-job injuries. Only a quarter of respondents say they get real-time reporting, but nearly two-thirds get clinic reports monthly.

Other outcomes were identified in a survey question about the employers' perceptions of clinic effectiveness. (See Figure 3.)

Figure 3. Clinic Effectiveness (n = 37)



The opportunities for indirect savings identified in Figures 2 and 3 are collectively significant among respondents, indicated by the fact that the average time for return on investment among the responding governments was only 1.3 years. Over 88 percent of respondents report that their governments are somewhat or completely satisfied with their clinics, and over 94 percent of their employees are somewhat or completely satisfied with the clinic operations.

Worksite Health Clinics

At least 50 percent of responding governments indicate that their clinics offer smoking cessation, weight management, chronic disease management, wellness services, laboratory services including drug testing and immunizations, Nutrition, pharmacy, and urgent care services are offered at over 40 percent of locations. These services may promote employee lifestyle changes that will provide other direct and indirect long-term savings.

Discussion

While survey data show no statistically significant relationships in clinic implementation and direct savings in health care expenditures, results suggest that potential for savings exists when benefit plans are altered to encourage employees to use the clinic as a medical home, where the focus is on primary care and management of costly chronic disease.[2] Sherman and Fabius point out that "a favorable shift in the population health risk profile can be viewed as a leading indicator of future health care utilization and costs" (2012, p. 398). Though results may not be immediately quantifiable, such linkage may have the long-term benefit of providing both hard and soft cost savings (LaPenna, 2010, pp. 71-79). Chenoweth and Garret (2006) note, however, that the final decision on keeping an intervention should not be based solely on financial costs. There are benefits -- employee morale, better labor-management relations, and improved employee health -- that cannot be readily quantified or may be long-term. Tracking and trending population outcomes measures such as health risk assessments, sick leave and urgent care usage, hospital days, and specialist visits can provide additional information about clinic effectiveness.

While direct savings on health care costs for employers and employers were primary drivers for governmental decisions to open worksite health clinics, it is likely that savings have been derived from the new model of health as much as from better control over costs of care. Easy access to care, low or no co-payments and deductibles, a relationship with a primary care physician within a medical home, and onsite occupational care are components of clinics that may contribute to improved health and cost-savings. This survey makes clear, however, that despite the fact that over two-thirds of responding governments report that they are collecting financial data, that clear accounting of savings attributable to the worksite clinic is easier said than done. In addition, the early stage of the development of most of the clinics in this study limits the ability to assess cost-effectiveness, since one or two years of data can reflect expensive anomalies that might not reflect a valid trend in costs.

Dependence on data from a clinic vendor is an inadequate means of determining financial success (Sherman & Fabius, 2012). While there is no uniform tool for measuring cost savings, the simple use of per-employee total costs (with a comparison of community versus clinic costs), population health monitoring in key areas, and measures of employee productivity and satisfaction could provide a preliminary means of benchmarking among worksite clinics. At a time when efficiency and effectiveness are essential expectations of governments, measuring performance of clinics provides an opportunity to demonstrate good fiscal and human resources management, while enhancing employee productivity through better management of health care.

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[2] According to the Centers for Disease Control and Prevention, "[m]ore than 75 percent of our health care spending is on people with chronic disease" (2009, 1).

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