

# The Importance of Community Health Centers

# Engines of economic activity and job creation

By Ellen-Marie Whelan August 9, 2010

## Introduction and summary

Community health centers across our country have a 45-year history of providing care in underserved communities for everyone, regardless of their ability to pay. By design, these health centers are run by a board of directors comprised mostly of health center patients, ensuring the care delivered is tailored for the needs of the communities they serve.

Community health centers enjoy strong bipartisan support. President George W. Bush committing to double the number of patients seen by these centers during his presidency and succeeded, and President Barack Obama committing an additional \$2 billion in the American Recovery and Reinvestment Act of 2009 to help these important community health centers expand their operations and build new centers.

Community health centers quickly demonstrated they could put additional federal investments to work, ramping up to provide care for an increased numbers of patients and expand their services. With the \$2 billion Recovery Act investment, these centers were projected to provide care to an additional 2.9 million patients over the stimulus act's two-year funding period, but in fact registered seeing over 2 million additional patients in the first year of funding—indicative of the demand for community health services in our country.<sup>1</sup>

Now, because of the passage of comprehensive health care reform earlier this year, an additional 32 million Americans will have health insurance coverage with about half of these individuals to be covered through an expansion of the Medicaid program. Once again, policy makers identified community health centers as ideal locations to provide this additional care. Through the Affordable Care Act, these health centers will receive an additional funding over the next five years to expand services and prepare to help meet the needs of these newly covered Americans. The new law provides

an additional \$9.5 billion in operating costs and \$1.5 billion for new construction. With this additional funding, community health centers will be able to double the number of patients they serve to up to 40 million annually by 2015.<sup>2</sup>

Along with providing quality health care at these sites, these investments in community health centers will help neighborhoods where they are located. Studies demonstrate that increased funding to health centers creates additional economic stimulus both within the center and beyond. The nearly \$2 billion investment from the stimulus act, for example, generated \$3.2 billion of economic activity, and in 2009, health centers generated approximately \$20 billion in economic activity for their local communities.<sup>3</sup> By intent, these health centers are located in lower income medically underserved communities mostly in rural and inner-city neighborhoods. In addition, studies find these are the same areas with the highest rates of unemployment and the highest rates of uninsurance.

This memo examines the important role community health centers play in both health care delivery and improved neighborhood economic activity, describes how stimulus act funding quickly translated into expanded health care and improved fiscal health, and estimates the economic impact the additional ACA funding will have on economic activity and the creation of more jobs. In the pages that follow, we also will demonstrate that all of this new funding will generate \$53.7 billion in economic activity for some of the most disadvantaged neighborhoods in the country over the next five years, with \$33.5 billion of this total attributable to the increased investments via the Affordable Care Act. Over this same period, these centers will support 457,289 jobs in these same communities (over 284,000 as a result of ACA funding).

## Community health centers deliver

The passage of comprehensive health care reform was truly historic, setting the stage to achieve the dual goals set out at the beginning of the health care debate expand coverage for nearly all Americans and rein in out of control health care costs. Community health centers are well placed to help the nation achieve both these goals. By design, these centers are located in medically underserved areas in lower income rural and inner-city communities and are prepared to ramp up quickly to provide health services to our neediest Americans. These centers boast strong primary care capabilities that decrease health care costs overall. 4

What is less touted is the economic activity that community health centers generate in their communities. Case in point: the \$1.8 billion investment that the American Reinvestment and Recovery Act made in these centers in 2009 yielded \$3.2 billion in total economic activity in those areas of the nation that needed it most. New jobs and in some cases brand new businesses that did not previously exist were created.<sup>5</sup>

Why are community health centers so capable of putting these funds to work quickly and effectively? Because these neighborhood-based and patient-directed centers are so intertwined with their neighborhoods they can often identity the health needs earlier and design effective community-based solutions before others even understand the underlying dynamics. These critical providers developed these skills since their launch in the 1960s. Today, these health centers serve over 20 million patients at over 8,000 sites, including 941,000 migrant/seasonal farm worker patients and 1 million homeless patients. The statute that created these centers requires them to meet four basic standards:

- They must be located in or serve a high-needs community. These medically underserved areas are defined as having a high percentages of people living in poverty, areas with few primary care physicians, higher than average infant mortality rates and high percentages of the elderly.<sup>6</sup>
- They must provide health care to all, regardless of ability to pay. All community
  health centers must commit to providing services for everyone, with fees based on a
  standard a sliding fee schedule that adjusts charges for care according to income.
- They must provide comprehensive health care services. All community health
  centers also must offer a broad range of "enabling" services to support the delivery
  of consistent, affordable health care.
- They must be governed by a community board. All community health center boards must be comprised of a majority (at least 51 percent) of health center patients who have the authority to oversee the operations of the center. These powers include approving budgets, hiring and firing chief executives, and establishing general policies.

These mandated links to the communities in which these health centers are located ensures they serve their neighborhoods efficiently and effectively. Let's look in a bit more detail at who they serve, where they are, and what services they provide.

#### Who community health centers serve

Because of their mission and mandated locations, the patients these health centers typically serve are without access to other health care settings. These include low-income people, the uninsured, those with limited English proficiency, migrant and seasonal farm workers, individuals and families experiencing homelessness, and those living in public housing. In fact, over two-thirds of the patients who receive care at community health centers are members of racial and ethnic minorities, which is one of the reasons these centers are so successful at reducing racial and ethnic health disparities in our country. (See figure one)

Because of the commitment to provide care for all, community health centers also serve a disproportionally high percentage of poor and uninsured patients. Seventy percent of patients seen have incomes below the federal poverty level (just over \$22,00 for a family of four) and over 90 percent are under two times the federal poverty level (about \$44,000 for a family of four). These centers also serve a much higher percentage of individuals with Medicaid. This is important since about half of the 32 million Americans who will be newly insured by the ACA will be eligible for Medicaid. These people will need access to care. (See figure two)

## Where community health centers are located

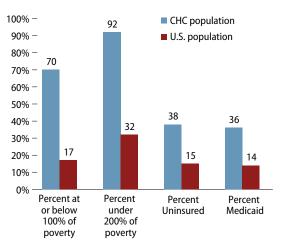
These health centers are located in all 50 states, the District of Columbia and in the nation's territories and commonwealths, but within these political boundaries they are located in the most underserved areas. The law requires them to be in areas with higher poverty rates within these states. These tend to be areas such as innercity neighborhoods or isolated rural areas particularly hard hit with the recent economic recession. One study finds that states with higher levels of unemployment have

#### FIGURE 1 Community health centers serve large minority groups Race/Ethnicity of CHC patients compared to U.S. population, 2009 90% -CHC population 80% -77 ■ U.S. population 70% -60% -50% -40% — 36 30% 21 20% 16 10% White American Hispanic/ African Asian/ Pacific Indian/ Latino American Islander Alaska Native

Note: Race/ethnicity may not sum to 100 percent due to rounding and noninclusion of two or more races.

Source: CHC: Bureau of Primary Health Care, HRSA, DHHS, 2009 Uniform Data System (UDS); US: U.S. Census Bureau, "Table 4: Estimates of the Population by Race and Hispanic Origin for the United States and States" (2009).





Source: National Assocation of Community Health Centers, "United States: At A Glance" (2009); Compares health center UDS data to state population data, respectively. State population data come from Kaiser Family Foundation, "State Health Facts Online," available at http://www.statehealthfacts.kff.org.

higher numbers of community health centers and after analyzing county level data finds that these centers were located in counties with even higher rates of unemployment.8

Although there are over 8,000 community health center, the unmet need is still enormous. Last year, the investigative arm of Congress, the Government Accountability Office, reported that 43 percent of federally designated underserved areas still do not have a community health center.9

#### What community health centers provide

These health centers are required to provide a full range of health-related services, typically beyond what other health care providers such as hospitals or out-patient clinics provide. This means in addition to providing comprehensive primary health care services they also offer specialty care (such as orthopedic, cardiac, or podiatric care), dental and mental health services, as well as "supportive services" that can include nutrition education, translation services, care coordination and case management, transportation to and from health care sites, and outreach activities to help find eligible patients. This also means the care delivered is culturally appropriate and in languages that many in these communities speak.

Because of the influence of the community board and their commitment to comprehensive health care, community health centers tailor the services they provide to meet the specific needs of their communities. That's why 89 percent of health centers provide interpretation/translational services on site, 79 percent provide weight reduction programs, 91 percent provide case management services, and 89 percent have services on site to help patients identify additional programs for which they might be eligible.<sup>10</sup>

Studies consistently show that community health centers provide care that improves health outcomes of their patients.<sup>11</sup> The patients of these centers are also more likely to identify a usual source of care, and report having better relationships with their health care providers. 12 This focus on primary care and the provision of additional supportive services are among the reasons that care delivered by community health centers is less expensive and ultimately saves money to the broader health care system.<sup>13</sup> Studies estimate that the provision of care in community health centers ultimately saves the U.S. health care system between \$9.9 billion and \$24 billion annually by eliminating unnecessary emergency room visits and other hospital-based care.14

## Recent expansion of community health centers

Community health centers expanded rapidly in the 21st century to meet the growing needs of medically underserved, lower income neighborhoods. The new funding necessary to grow found support from the Bush administration and the Obama administration, receiving the most recent boost in investment funds from the American Recovery and Investment Act of 2009 and the Affordable Care Act of 2010. But the expansion began almost a decade ago.

#### Bush administration investments

In fiscal year 2002, which began in October 2001, President Bush launched the President's Health Centers Initiative with the goal of adding 1,200 new and expanded health center sites over five years "to ultimately double the number of patients treated at community health centers." This was the hallmark of his strategy to address the nation's uninsured. <sup>16</sup> Due to subsequent budget constraints, however, as the federal budget surplus of the 1990s under President Bill Clinton turned to deficits under President Bush, this goal shifted to expanding the number of patients seen from 10 million in 2001 to 16 million in 2006.<sup>17</sup> Still, this patientdriven goal helped grow the funding levels of community health centers from \$1.34 billion for FY 2002 to \$2.1 billion in FY 2008.

#### Recovery Act investments

The Recovery Act granted additional funding of about \$2 billion to community health centers for operating costs and new construction dollars. This one-time funding nearly doubled their annual funding of \$2.1 billion in FY 2008. With this additional funding it was projected that health centers could provide care for an additional 2.9 million patients. In fact they served an additional 2.1 after only the first year of funding.

The important role that community health centers play in their neighborhoods proved to be especially evident as the Obama administration and Congress revved up to combat the economic consequences of the Great Recession of 2007-2009. One analysis found that counties receiving stimulus act funding for community health centers had an average unemployment rate (for January through November 2009) almost a full percentage point higher than average rate for nonrecipient

counties. What's more, these counties' unemployment rates were growing faster that than nonrecipient counties because of the Great Recession, with the rates increasing by 4.4 percent in counties that already had community health centers compared to an unemployment growth rate of 4 percent in other counties.<sup>18</sup>

Providing additional stimulus funding to community health centers in 2009 meant that economic benefits and job creation went hand in hand with expanded primary care access—targeted to the communities that need the most help. 19 As a result of Recovery Act funding, community health centers generated an additional \$3.2 billion in economic activity for the communities they served. 20 Much of this is a result of the new jobs created. In the three-month period between January and March 2010, for example, it is estimated that this investment created or maintained over 7,000 jobs—over half of which were health professionals. These jobs also include ancillary staff directly employed in the community health centers and other jobs indirectly created by industries supporting the services these community health centers provide. The funding also created an additional 1,500 jobs related to construction.

We don't yet know how many additional jobs were created as a result of stimulus act spending on community health centers because more research will be necessary to learn how this job creation influenced the unemployment rate at both county and state levels. But the past track record of investing in community health centers and broader economic data indicate the gains will be important.

#### Affordable Care Act investments

The historic passage of the new health care law earlier this year now poses a number of implementation-related challenges, including how to deliver care to the additional 32 million Americans who will have health coverage. Because there are still huge pockets of America without accessible health care services, community health centers are well positioned to ramp up and be ready to provide care to these newly covered health care recipients. The Affordable Care Act commits \$11 billion to these centers over the next five years to expand services.

Community health centers are long recognized for their ability to effectively utilize federal grants to improve and expand patient access to medical, dental, and mental health services.<sup>21</sup> The steady increase in federal funding has enabled these centers to provide high quality, accessible care to the nation's most vulnerable populations. That's why any discussion of how to expand access to health services

while trying to slow the rising costs of health care must include maximum utilization of our nation's existing community health centers and the new ones needed to meet future needs.

The new \$11 billion in funding via the Affordable Care Act will help bring new health centers to communities in need and enhance capacity at existing centers. Most of the funding (\$9.5 billion) will be used to provide for expansion and increased operating expenses at the existing centers, with the rest destined for new construction (\$1.5 billion).

What does this increased investment really buy? With additional funding for operations, community health centers will add staff to accommodate more patients, and add additional services at the centers to improve care delivery and lessen the chances of patients needing to get care will go to more expensive locations. One study finds that increased funding from 1996-2006 resulted in increases in the provision of on-site mental health services, 24-hour crisis intervention, after-hours urgent medical care, and substance use counseling.<sup>22</sup> But the increased funding also has enormous benefits outside the doors of the health center. To this we now turn.

## Economic activity and jobs

An important but less widely discussed byproduct of the increased funding to community health centers is the enormous economic activity in the broader community generated by this influx of dollars. Studies demonstrate that increased funding to health centers creates additional economic stimulus both within the center and beyond. We've seen this from the stimulus act funding, which created new jobs in areas most in need of this investment. This is especially important during times of economic insecurity.

How does expanded economic activity occur? First, and most obviously, health centers directly employ people in their communities, including key entry-level jobs, training, and other community-based opportunities. The health centers then purchase goods and services from local businesses and expand and build new locations. These new health centers and the businesses that have ramped up to serve the centers also must hire new employees. Every dollar spent and every job created by health centers has a direct impact on their local economies.

Previous studies analyzed the economic activity generated in communities from having a community health center.<sup>23</sup> Case in point: Using modeling developed by the U.S. Department of Agriculture and the Minnesota IMPLAN Group, an economic modeling firm, researchers determined how much economic activity a particular community health center will bring to a community, with details specific to each county and industrial sector. Using this modeling, we are able in this memo to estimate the economic impact and effect on job creation that the funding provided in the Affordable Care Act will have on communities in 2015 nationally and on a state-by-state basis.

The Affordable Care Act allocates that the additional \$9.5 billion funding for operating costs be distributed by a formula over the next 5 years and indicates that the funding should be in addition to (not a replacement for) current, appropriated funding which was \$2.2 billion in FY 2010.24 We estimate that total spending by community health centers (including base appropriated funding and the new health reform funding) will generate \$54 billion in economic activity in 2015, with \$33 billion of this a direct result of the additional investment in the new law. These dollars also translate into job retention and creation. We found that in 2015, community health centers will generate over 457,000 jobs, (284,000 as a direct result of the new ACA dollars).

To get the full picture of how this affects the neighborhoods served by the health centers, this economic activity can be broken down by what happens inside the health center and outside of them in the community at large. Because of a ripple effect, health centers often serve as an engine for stimulating existing and new businesses. So besides the *direct* economic effects within a health center, community health centers also provide indirect economic effects through their purchases of goods and services from other local business, as well as *induced* economic effects, which represent the response by all local industries caused by the expenditures of new household income generated by the direct and indirect effects. The following example from Access Granted: The Primary Care Payoff<sup>25</sup> illustrates the how health centers have direct, indirect, and induced economic influences on its neighborhood.

Imagine a health center that purchases waiting room chairs from a local furniture store (direct effect). The furniture store in turn purchases paper from an office supplies store to print receipts and a truck from a car dealer to make deliveries (indirect effect). The furniture store, the office supplies store, and the car dealership all hire staff and pay them salaries to help run the various businesses. These employees spend their income on everyday purchases such as groceries, clothing, cars, and TVs (induced effect).

As this demonstrates, economic activity expands well beyond the walls of the community health center. These dollars can be broken down by direct investment in the health center and the additional indirect effects this funding creates in local communities. As seen in Table 1, although the majority of the economic activity (\$31 billion) will be generated within the health center system, businesses in surrounding communities will enjoy a large percentage (\$22.8 billion) of the economic growth.

Similarly, there will be about 285,800 full-time-equivalent employees (an economic term that basically means full-time employees) directly in community health centers as both health care providers and ancillary staff. There will also be an additional 171,500 jobs *outside* the health center, indirectly created as a result of the business generated by the delivery of care in the center and through additional local industries which are expanded as a result of the household income newly generated.

Although actual economic activity will occur predominantly at very local levels—in areas near the health centers—the national economic impact was broken down by state in Table 2. This table shows the total economic activity by state in 2015 generated by investments in community health centers and also estimates what proportion of this is a direct result of the additional Affordable Care Act funding. The same estimates were made for employment predictions.

## TABLE 1 The impact of community health centers

Economic activity stimulated by community health centers' operations, projected - 2015

	Economic impact	Jobs (full time equivalent)
Direct	\$31.0 billion	285,800
Indirect/induced	\$22.8 billion	171,500
Total	\$53.8 billion	457,300

Note: Direct Economic Impact is the total operating expenses for each CHC. Each full time equivalent FTE, denotes one fulltime employee. Total FTEs denote total workforce generated by health centers. For the definition of FTE and additional explanation, see appendix.

Source: Based on revenue trends from the 2009 Uniform Data System, Bureau of Primary Health Care, HRSA, DHHS and new health center funding as described in the Affordable Care Act —analysis by the National Association of Community Health Centers and Capital Link. Prepared by Capital Link with MIG, Inc. IMPLAN Software Version 3.0, 2008 structural matrices and 2008 state-specific multipliers.

It should be noted that we cannot know with absolute accuracy the precise amount each state will receive in 2015 because of the process of distributing these funds. We estimate the breakdown by state by examining the distribution of funds over the past five years and predicted similar growth patterns. Predominately rural states see substantial economic benefit driven by health centers. This is important because health centers located in rural areas are often among the largest employers in their communities.<sup>26</sup>

TABLE 2
Projected economic activity and jobs created by community health centers by state, 2015

Total and additional amount as a result of ACA funding

State	Total economic activity, 2015	Economic activity as a result of ACA	Total jobs (FTEs) 2015	Additional jobs (FTEs) as a result of ACA
Alabama	525,140,846	326,511,203	4,922	3,060
Alaska	565,400,596	351,543,076	3,991	2,482
Arizona	1,177,582,231	732,172,698	10,281	6,393
Arkansas	290,436,518	180,581,605	2,950	1,834
California	9,268,202,610	5,762,591,126	71,649	44,549
Colorado	1,563,498,701	972,119,851	12,464	7,750
Connecticut	1,040,247,806	646,783,743	7,500	4,663
DC	378,000,893	235,025,569	3,254	2,023
Delaware	100,769,746	62,654,527	885	551
Florida	2,368,173,260	1,472,433,738	21,404	13,308
			5,696	3,541
Georgia	662,684,627	412,030,327		
Hawaii	485,958,030	302,148,922	4,553	2,831
owa	357,974,622	222,574,049	3,466	2,155
daho	263,134,089	163,606,066	2,626	1,633
llinois	2,921,685,608	1,816,585,185	22,831	14,196
ndiana	626,708,583	389,661,887	5,750	3,575
Cansas	235,992,444	146,730,495	2,386	1,484
Kentucky	615,869,620	382,922,661	5,409	3,363
ouisiana	456,728,176	283,974,989	4,226	2,627
Massachusetts	2,957,813,401	1,839,047,977	22,290	13,859
Maryland	931,548,123	579,198,705	7,422	4,615
Maine	466,592,396	290,108,159	4,314	2,683
Michigan	1,529,779,477	951,154,610	12,618	7,846
Minnesota	579,675,024	360,418,335	4,479	2,785
Aissouri	1,140,107,396	708,872,371	9,834	6,114
Mississippi	533,803,518	331,897,300	5,299	3,295
Montana	197,374,950	122,719,710	1,937	1,204
North Carolina	895,456,835	556,758,611	8,013	4,982
North Carolina North Dakota	59,158,632	36,782,429	608	378
Vebraska		97,831,405	1,574	979
	157,346,108			
lew Hampshire	208,537,242	129,659,969	1,930	1,200
lew Jersey	1,031,970,932	641,637,520	7,862	4,889
New Mexico	797,381,695	495,779,481	7,599	4,725
Nevada	159,878,479	99,405,931	1,472	915
lew York	3,425,649,264	2,129,929,273	34,369	21,369
Ohio	936,582,530	582,328,894	8,343	5,187
Oklahoma	303,187,627	188,509,725	2,713	1,687
)regon	1,269,370,452	789,242,878	10,646	6,619
Pennsylvania	1,468,532,996	913,074,041	12,061	7,499
uerto Rico	657,674,023	408,914,937	6,969	4,333
Rhode Island	351,675,201	218,657,325	2,965	1,843
outh Carolina	735,455,291	457,276,163	6,764	4,206
outh Dakota	125,611,953	78,100,399	1,156	719
ennessee	751,148,283	467,033,427	6,700	4,166
exas	2,562,060,697	1,592,985,054	22,707	14,119
Jtah	287,356,648	178,666,667	2,452	1,524
/irginia	594,748,754	369,790,567	5,407	3,362
~				
/ermont	280,661,900	174,504,145	2,457	1,528
Vashington	2,522,244,589	1,568,229,019	20,563	12,785
Visconsin	1,024,177,362	636,791,795	8,200	5,098
Vest Virginia	831,707,873	517,122,101	7,613	4,733
Vyoming	57,423,706	35,703,723	567	353
Other	58,018,693	36,073,662	1,139	708
ΓΟΤΑL	53,793,901,051	33,446,858,023	457,289	284,323

Notes: All numbers represent direct, indirect, and induced economic impacts. Total economic impact includes the value-added impact. Each full time equivalent, FTE, denotes one full-time employee. Total FTEs denote total workforce generated by health centers. For the definition of FTE and additional explanation, see appendix. Category "Other" includes American territories: American Samoa, Federal States of Micronesia, Guam, Marshall Islands, Palau, and Virgin Islands.

Source: Based on revenue trends from the 2009 Uniform Data System, Bureau of Primary Health Care, HRSA, DHHS and new health center funding as described in the Affordable Care Act—analysis by National Association of Community Health Centers and Capital Link. Nevada health center data provided directly from Nevada health centers. Prepared by Capital Link with MIG, Inc. IMPLAN Software Version 3.0, 2008 structural matrices and 2008 state-specific multipliers.

#### Conclusion

The dual intent of passage of the Affordable Care Act was to increase coverage for nearly all Americans while attempting to rein in health care costs. Community health centers already are key players in providing quality health care for millions of Americans. Their role in helping to care for the 32 million Americans who will be newly covered by the new comprehensive health reform law was reinforced when they were acknowledged in the new law and set to receive significant increases in funding over the next five years. Although the extra funding was allocated to improve and expand patient care, the secondary economic effects of this investment on the communities they serve cannot be ignored.

Historically, funding community health centers proved to be a smart investment in exactly the communities that need it most. Health centers time and time again demonstrate they are able to ramp up quickly and provide quality health care services for communities most in need. In addition to health services, this assistance comes in the form of new economic growth and new jobs. Much of the funding for community health centers in the stimulus act went to states with the highest unemployment rates, and within those states it went to the counties experiencing higher than average unemployment growth. We have every reason to expect increased funding for these centers via the Affordable Care Act will follow these same patterns.

Minority communities were among the hardest hit during the Great Recession, and are among those recovering the slowest from that deep economic downturn. The combination of high unemployment and rising home foreclosures is especially felt in communities of color. Community health centers serve much higher proportions of minorities and are located in areas that are heavily minority dominated. The increased funding for these health centers through the Affordable Care Act will be funneled to centers serving these communities where the extra economic benefits will be especially valuable.

The key premise of the Accountable Care Act was to expand coverage to nearly all Americans. Community health centers have a key and obvious role in helping the nation meet this charge. The additional economic benefit this has on community development is an important byproduct that must also be acknowledged as we emerge from the Great Recession. This new funding will enable community health centers to provide the right health care, to the right individuals, right in the nick of time.

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## Appendix

## Economic impact analysis definition of terms

(Previously printed in Access Granted: The Primary Care Payoff.<sup>27</sup> Available at http://www.nachc.com/access-reports.cfm)

The *direct* economic impact is defined as the total operating expenditures of the health centers. Industries producing goods and services for consumption, in this case the health centers, purchase goods and services from other producers. These other producers, in turn, purchase goods and services and so on, thereby generating an indirect economic impact. Effects of increased household spending are called *induced* economic impact.

This analysis uses the "multiplier effect"—and more specifically a complete integrated economic planning tool called IMPLAN (Impact analysis for PLANning)—to capture the indirect business effects of a health center's business operations. IMPLAN was developed by the U.S. Department of Agriculture and the Minnesota IMPLAN Group, an economic modeling firm, and employs multipliers, specific to each county and each industrial sector, to determine total output, employment, and earnings. Those multipliers are:

Output multiplier. This measures the increase in total output generated in a defined regional economy for each dollar spent by a given industry. If the multiplier for health care services is 3.0, for example, then every dollar spent by a health care center would create \$3.00 in economic activity in the local community.

Value-added (earnings) multiplier. This measures the earnings (purchasing power) that an industry generates, through payroll and the multiplier effect, for households employed by all industries within a defined area. Consequently, the value-added impact represents the amount of dollars that aggregate households in a given area will gain in household income based on the dollars put out into that community by a Community Health Center through operating expenditures.

**Employment multiplier.** This measures the number of jobs generated across all industries by the activity within a given industry needed to deliver \$1 million of products or services to a defined geographic area. This multiplier produces an estimate of the total number of new jobs that a local economy can support in all industries due to the dollars being injected into the community by the health center. In other words, the economic activity of the health center stimulates job growth because of the "snowballing" of the dollars expended.

Full -time equivalent employee. The FTE employee term means that the person is equivalent to a full-time worker. In an organization that has a 40-hour workweek, a person who works 20 hours per week (50 percent time) is reported as "0.5" FTE." An FTE employee also is calculated based on the number of months the employee works. An employee who works full time for 4 months out of the year would be reported as "0.33 FTE" (4 months/12 months).

IMPLAN's output, earnings, and employment figures are aggregated based on direct, indirect, and induced economic effects. These are defined as follows:

**Direct effects.** This represents the response for a given industry (in this case, Total Operating Expenditures of Community Health Centers with the exception of Nevada).

**Indirect effects.** This represents the response by all local industries caused by "the iteration of industries purchasing."

**Induced effects.** This represents the response by all local industries to the expenditures of new household income generated by the direct and indirect effects.

Within the field of economics, the multiplier effect is used to determine the impact of each dollar entering, impacting and eventually leaving a defined economy, which is sometimes defined as the "dollar turnover." This results in increased production and expenditures, employment creation and attraction, and retention of new residents, businesses and investments. State multipliers are factored in to estimate the spin-off activity from the expenditures of the community health center in providing health care services.

#### Endnotes

- 1 National Association of Community Health Centers, "Turning vision into reality: More Patients Gain Access to Health Center Care thanks to Stimulus Funds" (2010).
- 2 National Association of Community Health Centers, "June Fact Sheet" (2010) - expanding under HCR.
- 3 National Association of Community Health Centers, "Turning vision into reality."; National Association of Community Health Centers, "Community Health Centers Lead the Primary Care Revolution" (2010).
- 4 Sonya Streeter and others, "The Effect of Community Health Centers on Healthcare Spending & Utilization," (Washington: Avalere Health, 2010); Leighton Ku and others, "Strengthening Primary Care to Bend the Cost Curve: The Expansion of Community Health Centers Through Health Reform," (Washington: Geiger Gibson/ RCHN Community Health Foundation Research Collaborative, 2010).
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