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Toward a More Complete Picture of Outpatient, Office-Based Health Care in the US

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Abstract

The health care system in the United States, particularly outpatient, office-based care, has been shifting toward service delivery by advanced practice providers, particularly nurse practitioners (NPs) and physician assistants (PAs). The National Ambulatory Medical Care Survey (NAMCS), conducted by the National Center for Health Statistics (NCHS) at the Centers for Disease Control and Prevention, is the leading source of nationally representative data on care delivered by office-based physicians. This paper first describes NAMCS, then discusses key NAMCS expansion efforts, and finally presents major findings from two exploratory studies that assess the feasibility of collecting data from NPs and PAs as sampled providers in NAMCS. The first NAMCS expansion effort began in 2006 when the NAMCS sample was expanded to include community health centers and started collecting and disseminating data on physicians, NPs, PAs, and nurse midwives in these settings. Then, in 2013, NCHS included workforce questions in NAMCS on the composition and clinical tasks of all health care staff in physician offices. Finally, in 2013–14, NCHS conducted two exploratory studies and found that collecting data from NPs and PAs as sampled providers in NAMCS is feasible. However, modifications to the current NAMCS procedures may be necessary, for example changing recruitment strategies, visit sampling

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procedures, and physician-centric survey items. Collectively, these NCHS initiatives are important for health care research, practice, and policy communities in their efforts toward providing a more complete picture of the changing outpatient, office-based workforce, team-based care approach, and service utilization in the United States.

INTRODUCTION

The United States is challenged by rising health care costs and a projected shortfall of physicians practicing in office-based settings, in light of an increasing demand for health services with the recent expansion of national healthcare coverage.[1,2] In response, the U.S. health care system, particularly outpatient, office-based care settings, is shifting toward service delivery by advanced practice providers, such as nurse practitioners (NPs) and physician assistants (PAs).[3] Based on 2014 Bureau of Labor Statistics Occupational Employment Statistics, there were about 336,200 or 56% of physicians, 57,100 or 47% of NPs, and 53,300 or 58% of PAs employed in physician offices nationwide.[4] Previous research found that 52% of all NPs and 43% of all PAs practiced in primary care. [5] Although the numbers of primary care NPs and PAs are projected to increase between 2010 and 2020,[2] the trend away from primary care specialties observed among physicians has also been observed among NPs and PAs due to financial disincentives.[6,7] New models of team-based care adopted by patient-centered medical homes and accountable care organizations also assume greater reliance on NPs and PAs to deliver health care in a variety of office-based care settings.[8] The increased supply of and reliance on NPs and PAs, along with effective integration of the care they provide, some have argued may be one way to provide health care more efficiently.[9]

The state's scope of practice laws and the practice setting's term of employment where NPs and PAs practice significantly impact their autonomy to diagnose, plan, treat, and/or prescribe medications to patients without physician involvement.[10] As of 2015, 20 states and the District of Columbia allowed NPs to practice and prescribe medications independently of a physician.[11] Although PAs are permitted to diagnose patients and prescribe medications only with physician oversight in all 50 states, greater autonomy is being developed within the physician-PA relationship.[12] Given the growing number of practicing NPs and PAs and the changing scope of practice laws, a more complete picture is needed of the health services they provide, particularly outpatient, office-based care.

The National Ambulatory Medical Care Survey (NAMCS), conducted by the National Center for Health Statistics (NCHS) at the Centers for Disease Control and Prevention, is the leading source of nationally representative data on health care delivered by outpatient, office-based physicians. However, comparisons of office-based visits reported in federal household surveys and NAMCS found that differences between the household surveys and NAMCS were accounted for by underreported office visits seen by non-physician clinicians.[13,14] Researchers argued that NAMCS sampling strategies under-reported non-physician visits in office-based settings due to the omission of "non-physicians with independent patient daily rosters and those with independent practices."[3] Data available from NP and PA professional associations reflecting practice characteristics of their members also support

these findings.[15,16] Estimates of office-based PA visits reported in a PA survey were more than triple the number reported in NAMCS.[3]

This paper describes the latest initiatives that NCHS is taking to expand its data collection efforts. The NAMCS is described first, followed by a discussion of three major NAMCS expansion efforts: (1) collecting and reporting data on physicians, NPs, PAs, and nurse midwives in community health centers (CHCs); (2) including workforce questions on the composition of all health care staff in physician offices; and (3) conducting and reporting results on two exploratory studies that assessed the feasibility of collecting data from NPs and PAs as sampled providers in NAMCS. These initiatives are important to health care research, practice, and policy communities in their efforts toward a more comprehensive examination of the changing workforce and team-based care approach in outpatient settings, as well as office-based health service utilization in the United States.

THE NAMCS SURVEY

The National Ambulatory Medical Care Survey (NAMCS) is a national probability sample survey of nonfederal office-based physicians and is the leading source of data for examining ambulatory care in the United States. Data from the survey provide nationally representative estimates of practice characteristics and visits to office-based physicians, including the care delivered. Details about the NAMCS sample design, sampling variance, and estimation procedures have been published elsewhere.[17]

The NAMCS sample is drawn from the master files of the American Medical Association and American Osteopathic Association. An in-person induction interview is first conducted to determine eligibility and gather information about the physician's practice setting. In-scope physicians are non-federal physicians primarily engaged in office-based patient care. Physicians in the specialties of anesthesiology, radiology, and pathology are excluded. Office settings eligible for NAMCS include private solo or group practice, health maintenance organizations, freestanding clinics or urgicenters, non-federal government clinics, community health center (CHCs), family planning clinics, and faculty practice plans.

NAMCS employs a multi-stage complex survey design. From 1989 to 2011, the first-stage consisted of selecting 112 geographic primary sampling units. From these sampling units, a random sample of over 3,000 physicians was selected by specialty. A random sample of visits was then selected within physician practices during a 1-week reporting period. Patient medical records were abstracted with the goal of obtaining data on up to 30 visits per physician randomly selected during the sampled reporting week, resulting in an annual total of about 29,000 visits.

In 2012, the NAMCS sample size was increased by almost five-fold (to about 16,000 physicians and CHC providers) in order to examine changes in health care delivery according to state, specialty, and other physician characteristics. In addition to increased sample size, the NAMCS sampling design employed a list sample stratified by the 34 most populous states and by Census Divisions (among remaining states). Survey results permit national estimates, state-based estimates for the most populous states, as well as estimates

for the nine Census Divisions. NAMCS state-based estimates will be available through 2015.[17,18] The number of state-specific estimates changed each year based on the availability of funds (Table 1). NAMCS state-specific data were made available for the first time for the 2012 survey year. The public use data files may be downloaded from http://www.cdc.gov/nchs/ahcd/about_ahcd/ahcd_questionnaires.htm.

NAMCS EXPANSION EFFORTS

Community Health Centers

Prior to 2006, the number of CHC physicians selected for the NAMCS sample was too small to produce reliable estimates on physicians working in CHCs and their visits. Beginning in 2006, a separate stratum of CHCs was added to the NAMCS sample. Each year a random sample of 104 CHC headquarters was drawn from lists of federally qualified health centers (FQHCs) provided by the Health Resources and Services Administration. Sampled FQHCs included Section 330 Grantees, FQHC Look-Alike Entities, and Indian Health Service urban outpatient clinics. Within each sampled CHC, a random sample of up to three providers (i.e., physicians, NPs, PAs, and nurse midwives) who were scheduled to see patients during the sample week were selected. Up to 30 randomly-selected visits to a sampled provider were selected during the 1-week reporting period. Table 2 presents the frequency of sampled CHC providers who provided visit data by type from 2006 to 2011.

Starting in 2012, the CHC component of NAMCS was redesigned to permit state estimates of CHC providers and their visits. The CHC sampling unit changed from the CHC headquarter to the CHC delivery site location to enable verification of the state location of the sampled delivery site (from about 104 headquarters to about 2,000 delivery sites). Within sampled CHCs, procedures for selecting up to 3 providers and their visits remained the same.

Adding the CHC stratum allowed estimates to be made on characteristics of and visits to CHC physicians, NPs, PAs, and nurse midwives. While the number of states for which CHC visit estimates will be available decreased from 2012 to 2015, the number of sampled service delivery sites remained about the same (Table 3).

The 2006–2011 CHC provider-level and visit data to NPs, PAs, and nurse midwives are available for analysis through NCHS's Research Data Center (http://www.cdc.gov/rdc/). Public use files on CHC visits for 2012 and subsequent years will be released separately from the other NAMCS files.

Collecting CHC data has allowed comparisons of care delivered in CHCs with care in physician offices, as well as comparisons of care among different health care providers within CHCs. Studies have found that care provided in CHCs included more health education services than care in physician offices,[19,20] and the quality of care delivered were largely similar according to 18 selected measures.[21] Frequencies of care processes, such as ordering a lab test or obtaining blood pressure, are either comparable or higher in CHCs.[22] Additional evidence shows that within CHCs, more visits to physicians and PAs were for chronic disease management, while more visits to NPs were for preventive care services.

[21,23] One study found no differences in the amount of time patients spent with physicians, PAs, or NPs in CHCs.[24]

Health Care Workforce Items

As supplies of NPs and PAs increase, there is a growing need to examine the clinical tasks they perform in ambulatory care settings. Starting in 2013, workforce items were added to the NAMCS induction interview on the clinical tasks that all healthcare staff performs in the physician's office. These questions were sponsored by the Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation (DHHS/ASPE). These questions were motivated by the increasing emphasis on patient-centered medical homes and the team-based approach of care delivery.

For the first time, NAMCS data are being gathered on the composition of the staff in office-based practices, as well as CHCs (Figure 1). Information is also collected on the clinical tasks the providers perform within the practice, such as the provision of preventive services by type of provider; on-site supervision of PA, NPs, and certified nurse midwives; and whether PAs, NPs, and certified nurse midwives have separate patient logs. These questions are part of the induction interview: http://www.cdc.gov/nchs/ahcd/ahcd_survey_instruments.htm#namcs

The 2013 NAMCS health care workforce files will be available for analysis in NCHS's Research Data Center in the near future (http://www.cdc.gov/rdc/); however, public use files on these data are not planned at this time due to high disclosure risk of the identity of survey respondents.

RESULTS OF EXPLORATORY STUDIES

Currently, no nationally representative data on the practice characteristics and services provided by NPs and PAs exist, with exception to those practicing in CHCs. For example, the Kaiser Family Foundation and the Commonwealth Fund conducted the National Survey of Primary Care Providers in 2015, but the survey questions focused only on the primary care providers' experiences and attitudes during the first year of health care reform.[25] The Health Resources and Services Administration conducts the National Survey Sample of Nurse Practitioners once every four years. This survey captures self-reported workforce data from NPs, but not data on the health care services they provided.[26] In addition, the National Commission on Certification of Physician Assistants (http://www.nccpa.net), as well as the American Academy of Physician Assistants (http://www.aapa.org), continuously collects demographic and employment data on PAs, but the data do not contain practice setting or service delivery information. The same is true for the American Association of Nurse Practitioners (http://www.aanp.org).

In the current NAMCS, collecting data on NPs and PAs are limited. About 47% of office-based physicians do not employ any advanced practice providers in their practice.[27] In practices that include NPs and/or PAs as well as physicians, NPs and PAs may keep their own patient logs separate from those of the physicians; therefore, visit data to NPs and PAs would not be captured in NAMCS. In addition, due to NAMCS physician-only sample

frame, visits to NPs who work in settings with no physician supervision are not included. Nationally, about 11% of NPs work in settings without physician supervision or presence, such as nurse-managed health clinics and private offices.[26] Similarly, PAs also may work in locations apart from their supervising physician.

To address the changing landscape of health care delivery, NCHS embarked on several initiatives to determine the feasibility of including NPs and PAs as sampled providers in NAMCS. The first initiative was to identify an up-to-date, valid, and comprehensive universe of all practicing NPs and PAs in the U.S. that could be used as sample frames. There are several NP and PA membership-based association surveys, but they did not constitute a census of practicing providers. Licensure data on NPs and PAs were available only from individual states, making it inefficient to obtain such data on an annual basis. Certifying organizations, including the National Council of State Boards of Nursing (NCSBN) and the National Commission on Certification of Physician Assistants (NCCPA), have lists of all certified providers in the U.S. but information on practice setting characteristics is not available to identify in-scope providers working in outpatient, office-based settings needed for sampling purposes. Another potential data source included Centers for Medicare and Medicaid Services' (CMS) National Provider Identifier (NPI) file, but it is restricted to only providers with an NPI number. Finally, there are sample frames available for purchase from private vendors. These universe lists have been assessed to contain the most complete and up-to-date information, by comparison to other data sources, needed for on-going sampling purposes.

Additionally, DHHS/ASPE funded two exploratory studies – one of NPs and one of PAs – to assess the feasibility of using existing NAMCS survey procedures to collect data from NPs and PAs. The studies were conducted in 2013–2014 with convenience samples of 7 NPs and 5 PAs. These providers practiced in office-based and freestanding clinics in the Washington D.C. metropolitan area and had either a primary care or a non-primary care specialty. Besides minor word changes in the instrument (e.g., from "physicians" to "providers such as NPs and PAs"), the procedures used in both studies were largely identical to those employed in NAMCS. For each sampled provider, Census Bureau field representatives collected data on practice characteristics and abstracted data from medical records for up to 30 patient visits randomly selected during a 1-week reporting period. In all, 217 PRFs were completed in this pilot study. Debriefing questionnaires and a teleconference call were conducted to assess the participants' experience with the studies.

Overall, results suggest that while it may be feasible to collect data from NPs and PAs on their practice characteristics and the health care they deliver in their visits, current NAMCS procedures may need to be modified. Key areas of modifications include: recruitment, visit sampling procedures, and induction interview questions that are irrelevant to NP and PA practices.

Recruitment

Gaining a supervisor's approval to participate in an expanded NAMCS may pose a challenge to NPs and PAs, especially for those who do not own their practices. Most NPs, except those who worked independently, and all PAs in the studies had to obtain permission from their

supervising physician or the owner of the practice to participate. NP and PA recruitment may need to include new recruitment strategies to work with sampled providers to gain approval to participate. Obtaining permission to participate also is relevant to NAMCS sampled physicians as many of them are working for large organizations that require them to obtain permission prior to participation. Similar to known concerns of NAMCS physician participants, NPs and PAs expressed concerns about data confidentiality and the time required to participate in the survey. Recruitment efforts may need to highlight the assurance of data confidentiality and flexibility of data collection procedures to minimize respondent burden.

Visit Sampling Procedures

One potential challenge was distinguishing patient visits seen by the sampled NP or PA from visits seen by other providers in the same office. Most offices in the study sample that employed multiple providers shared the same patient log. Distinguishing patients by providers seen may become increasing challenging as office-based health care teams are expanding to include different types of providers such as social workers and pharmacists. In conducting NAMCS that includes NPs and PAs, field representatives may need training on how to work effectively with office staff to identify visits seen by the sampled NP or PA and build in extra time for this effort, especially in offices with no separate logs.

Revision to Induction Interview

Some of the NAMCS induction interview items will need to be tailored to NPs and PAs because they are not relevant as currently worded. For example, questions about provider teamwork is important and language about interdependence and consultation among providers may need to be included in the induction interview. Additionally, questions on whether a sampled provider had physician supervision or required physician signoff on patient medical records assume that there is a supervising physician in the practice. In several questions, the word “supervision” needs to be qualified as to the following: if it pertains to a state regulation or a condition of employment for the sampled NP or PA; if the supervision is on- or off-site; and if the sampled NP or PA is a supervisor.

CONCLUSION

The changing landscape of the health care delivery system requires the examination of health services to broaden across different health care professionals. Expanding the scope of NAMCS will help to keep it the leading source of outpatient, office-based health care data in the United States. To that end, NCHS added advanced practice providers to the community health center provider sample and workforce questions to the NAMCS induction interview. Possible future endeavors include sampling NPs and PAs in NAMCS. These are on-going efforts that NCHS is taking toward the goal of providing a more complete picture of the changing outpatient care workforce and team-based care approach, as well as the utilization of office-based care in the United States.

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REFERENCES

1. U.S. Department of Health and Human Services, Health Resources and Services Administration, National Center for Health Workforce Analysis. Projecting the Supply and Demand for Primary Care Practitioners through 2020 Health Resources and Services Administration, Rockville, Maryland 11 2013 http://bhpr.hrsa.gov/healthworkforce/supplydemand/usworkforce/primarycare/projectingprimarycare.pdf
2. Schwartz MD. Health care reform and the primary care workforce bottleneck. J Gen Intern Med 2012;27(4):469–77. [PubMed: 22042605]
3. Morgan PA, Strand J, Ostbye T, Albanese MA. Missing in Action: Care by Physician Assistants and Nurse Practitioners in National Health Surveys. Health Serv Res 2007;42(5): 2022–2037. [PubMed: 17850531]
4. U.S. Department of Labor, Bureau of Labor Statistics. Occupational Employment Statistics: National Occupational Profiles 5 2014 http://www.bls.gov/oes/tables.htm
5. U.S. Department of Health and Human Services, Agency for Healthcare Research and Quality. The Number of Nurse Practitioners and Physician Assistants Practicing Primary Care in the United States. Primary Care Workforce Facts and Stats No. 2 Agency for Healthcare Research and Quality, Rockville, Maryland 10 2014 http://www.ahrq.gov/sites/default/files/publications/files/pcwork2.pdf
6. Morgan PA, Hooker RS. Choice of Specialties among Physician Assistants in the United States. Health Affairs 2010;29(5):887–92. [PubMed: 20439876]
7. Petterson SM, Phillips RL, Bazemore AW, Burke BT, Koinis GT. Relying on NPs and PAs Does Not Avoid the Need for Policy Solutions for Primary Care. Graham Center Policy One-Pager 8 2013 http://www.graham-center.org/rgc/publications-reports/publications/one-pagers/relying-on-nps-2013.html
8. Everett CM, Thorpe CT. Palta M, Carayon P, Gilchrist VJ, Smith MA Division of primary care services between physicians, physician assistants, and nurse practitioners for older patients with diabetes. Med Care Res Rev 2013;70(5):531–41. [PubMed: 23868081]
9. Cooper RA. New directions for nurse practitioners and physician assistants in the era of physician shortages. Acad Med 2007;82(9):827. [PubMed: 17726384]
10. Kuo YF, Loresto FL, Rounds LR, Goodwin JS. States With The Least Restrictive Regulations Experienced The Largest Increase In Patients Seen by Nurse Practitioners. Health Aff (Millwood) 2013;32(7):1236–1243. [PubMed: 23836739]
11. State Nurse Practice Acts and Administrative Rules, 2015. State Practice Environment. American Association of Nurse Practitioners 2015 http://www.aanp.org/legislation-regulation/state-legislation/state-practice-environment.
12. Gadbois EA, Miller EA, Tyler D, Intrator O. Trends in state regulation of nurse practitioners and physician assistants, 2001 to 2010. Med Care Res Rev 2015;72(2):200–19. [PubMed: 25542195]
13. Machlin SR, Valluzzi JL, Chevarley FM, Thorpe JM. Measuring Ambulatory Health Care in the United States: A Comparison of 1996 Estimates Across Four Federal Surveys. J of Econ and Social Measure 2001;27(1):57–69.
14. Rhoades JA, Cohen JW, Machlin SR. Methodological Comparison of Estimates of Ambulatory Health Care Use from the Medical Expenditure Panel Survey and Other Data Sources. Proceeding of the Health Policy Statistics Section, Joint Statistical Meeting. 2010 https://www.amstat.org/sections/srms/proceedings/y2010/Files/307444_58577.pdf.
15. Kleinpell R, Goolsby MJ. American Academy of Nurse Practitioners National Nurse Practitioner Sample Survey: Focus on Acute Care. J Am Acad Nurse Pract 2012;24(12):690–4. [PubMed: 23190126]

16. Orcutt VL. Exploring physician assistant data sources. JAAPA 2015;28(8):49–56.
17. National Center for Health Statistics. 2012 NAMCS Microdata File Documentation Centers for Disease Control and Prevention, National Center for Health Statistics, Hyattsville, MD 2015 http://www.cdc.gov/nchs/ahcd.htm
18. Hing E, Shimizu I, Talwalkar A. Nonresponse bias in estimates from the 2012 National Ambulatory Medical Care Survey. Vital Health Stat 2 In press.
19. Shi L, Lebrun LA, Tsai J, Zhu J. Characteristics of Ambulatory Care Patients and Services: A Comparison of Community Health Centers and Physicians' Offices. J Health Care Poor Underserved 2010;21(4):1169–83. [PubMed: 21099069]
20. Hing E, Hooker RS. Community health centers: Providers, patients, and content of care. NCHS Data Brief 2011;(65):1–8.
21. Goldman LE, Chu PW, Tran H, Stafford RS. Federally Qualified Health Centers and Private Practice Performance on Ambulatory Care Measures. Am J Prev Med 2012;43(2):142. [PubMed: 22813678]
22. Shi L, Lebrun LA, Hung LM, Zhu J, Tsai J. US primary care delivery after the Health Center Growth Initiative: comparison of health centers, hospital outpatient departments, and physicians' offices. J Ambul Care Manage 2012;35(1):60–74. [PubMed: 22156956]
23. Morgan P, Everett C, Hing E. Nurse practitioners, physician assistants, and physicians in community health centers, 2006–2010. Healthc (Amst) 2015;3(2):102–7. [PubMed: 26179731]
24. Morgan P, Everett C, Hing E. Time spent with patients by physicians, nurse practitioners, and physician assistants in community health centers, 2006–2010. Healthc (Amst) 2014;2(4):232–7. [PubMed: 26250629]
25. Experiences and Attitudes of Primary Care Providers Under the First Year of ACA Coverage Expansion: Findings from the Kaiser Family Foundation/Commonwealth Fund 2015 National Survey of Primary Care Providers. Commonwealth Fund Pub 1823 Vol. 17 Issue Brief. 6 2015 https://kaiserfamilyfoundation.files.wordpress.com/2015/06/experiences-and-attitudes-of-primary-care-providers-under-the-first-year-of-aca-coverage-expansion.pdf
26. U.S. Department of Health and Human Services, Health Resources and Services Administration, National Center for Health Workforce Analysis. Highlights from the 2012 National Sample Survey of Nurse Practitioners Health Resources and Services Administration, Rockville, Maryland 2014 http://bhpr.hrsa.gov/healthworkforce/supplydemand/nursing/nursepractitionersurvey/npsurveyhighlights.pdf.
27. Hing E, Hsiao CJ. State variability in supply of office-based primary care physicians: United States, 2012. NCHS Data Brief 2014;(151):1–8.

How many of the following full-time and part-time providers are on staff at the office location where you have the most office visits?

NOTE: Please include the sampled provider in the total count of staff below. Full-time is 30 or more hours per week. Part-time is less than 30 hours per week. Please provide the total number of full-time and part-time providers.

Type of Provider	Number Full-Time (≥30 hours)	Number Part-Time (<30 hours)
Physicians (MD and DO)		
Non-Physician Clinicians		
Physician Assistant (PA)		
Nurse Practitioner (NP)		
Certified Nurse Midwife (CNM)		
Other Nursing Care		
Registered nurse (RN) (not an NP or CNM)		
Licensed Practical Nurse (LPN)		
Certified Nursing Assistant/Aide (CNA)		
Allied Health		
Medical Assistant (MA)		
Radiology Technician (RT)		
Laboratory Technician (LT)		

Physical Therapist (PT)		
Pharmacist (Ph)		
Dietitian/Nutritionist (DN)		
Others		
Medical Health Provider (MH)		
Health Educator/Counselor (HEC)		
Case Manager (not an RN)/Certified Social Worker (CSW)		
Community Health Worker (CHW)		

Figure 1.
2013 National Ambulatory Medical Care Survey question on workforce composition.

Table 1.

NAMCS: Number of States Targeted for State-Specific Estimates and Sampled Physicians, 2012–2015

	2012	2013	2014	2015
Number of states	34	22	18	16
Number of physicians	~16,000	~11,000	~10,000	~8,000

Note: NAMCS = National Ambulatory Medical Care Survey

Table 2.

NAMCS CHC Component: Number of CHC Providers with Visit Data by Type, 2006–2011

	Year					
Type of CHC provider	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**
All provider types	257	248	239	234	233	231
Physician	174	166	142	146	147	140
Nurse practitioner	49	59	66	58	66	57
Physician assistant	26	19	23	25	20	30
Nurse midwife	8	4	8	4	0	4

Note: NAMCS = National Ambulatory Medical Care Survey; CHC = Community Health Center

Table 3.

NAMCS CHC Component: Number of States Targeted for State-Specific Estimates, CHCs, and CHC Providers, 2012–2015

	2012	2013	2014	2015
Number of states	34	22	18	16
Number of CHC delivery sites	~2,000	~2,100	~1,900	~1,800
Number of providers	~2,300	~3,000	~2,700	to be determined

Note: NAMCS = National Ambulatory Medical Care Survey; CHC = Community Health Center