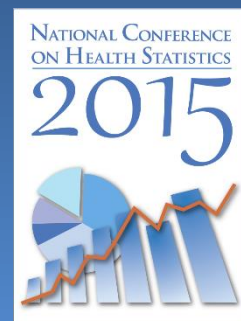


Who Provides Primary Care in the United States: Going Beyond Physician-based Care

Esther Hing, M.P.H.

Denys Lau, Ph.D.

National Center for Health Statistics



Agenda

What do we know from NAMCS and
NHAMCS

Gaps in workforce data

2013-2015 NAMCS Workforce questions

2014 exploratory studies of NPs and PAs

National Surveys of Ambulatory Care

National Ambulatory Medical Care Survey (NAMCS)

- Physician estimates
- Patient visits to non-federal office-based physicians
- Patient visits to community health centers (CHCs) beginning in 2006

National Hospital Ambulatory Medical Care Survey (NHAMCS)

- Patient visits to emergency departments (EDs) and outpatient departments (OPDs)
- Patient visits to ambulatory surgery centers (ASCs) beginning in 2009
- Patient visits to free-standing ASCs beginning in 2010

NAMCS & NHAMCS Findings

**National Ambulatory Medical Care Survey (NAMCS) and
National Hospital Ambulatory Medical Care Survey (NHAMCS)
List of Publications (updated 3/2/2015)**

This list includes reports produced within the National Center for Health Statistics as well as journal articles and books using NAMCS and NHAMCS data. Selections are listed by topic in chronological order, beginning with the

http://www.cdc.gov/nchs/data/ahcd/namcs_nhamcs_publication_list.pdf

Journal Articles--Descriptive

CHCs vs. Physician Offices

**Characteristics of Ambulatory Care Patients
and Services: A Comparison of Community
Health Centers and Physicians' Offices**

Leiyu Shi, PhD
Lydie A. Lebrun, PhD, MPH
Jenna Tsai, EdD
Jinshe Zbu, MEd

**Primary Health Care in Community Health Centers
and Comparison with Office-Based Practice**

Esther Hing · Roderick S. Hooker ·
Jill J. Ashman

CHCs vs. Physician Offices vs. OPD

**US Primary Care Delivery
After the Health Center
Growth Initiative**

Comparison of Health Centers,
Hospital Outpatient Departments,
and Physicians' Offices

*Leiyu Shi, DrPH, MBA, MPA; Lydie A. Lebrun, PhD, MPH;
Li-Mei Hung, PhD; Jinshe Zbu, MEd; Jenna Tsai, EdD*

Journal Articles--Analytic

MD, PA, NP comparisons in CHCs

Nurse practitioners, physician assistants, and physicians in community health centers, 2006–2010

Perri Morgan^{a,*}, Christine Everett^a, Esther Hing^b

^a Physician Assistant Division, Department of Community and Family Medicine, Duke University Medical Center, United States

^b Division of Health Care Statistics, National Center for Health Statistics, Centers for Disease Control and Prevention, United States

Time spent with patients by physicians, nurse practitioners, and physician assistants in community health centers, 2006–2010

Perri Morgan^{a,*}, Christine M. Everett^a, Esther Hing^{a,b}

^a Department of Community and Family Medicine, Duke University Medical Center, Durham, NC 27710, USA

^b National Center for Health Statistics, Centers for Disease Control, USA

Journal Articles--Analytic

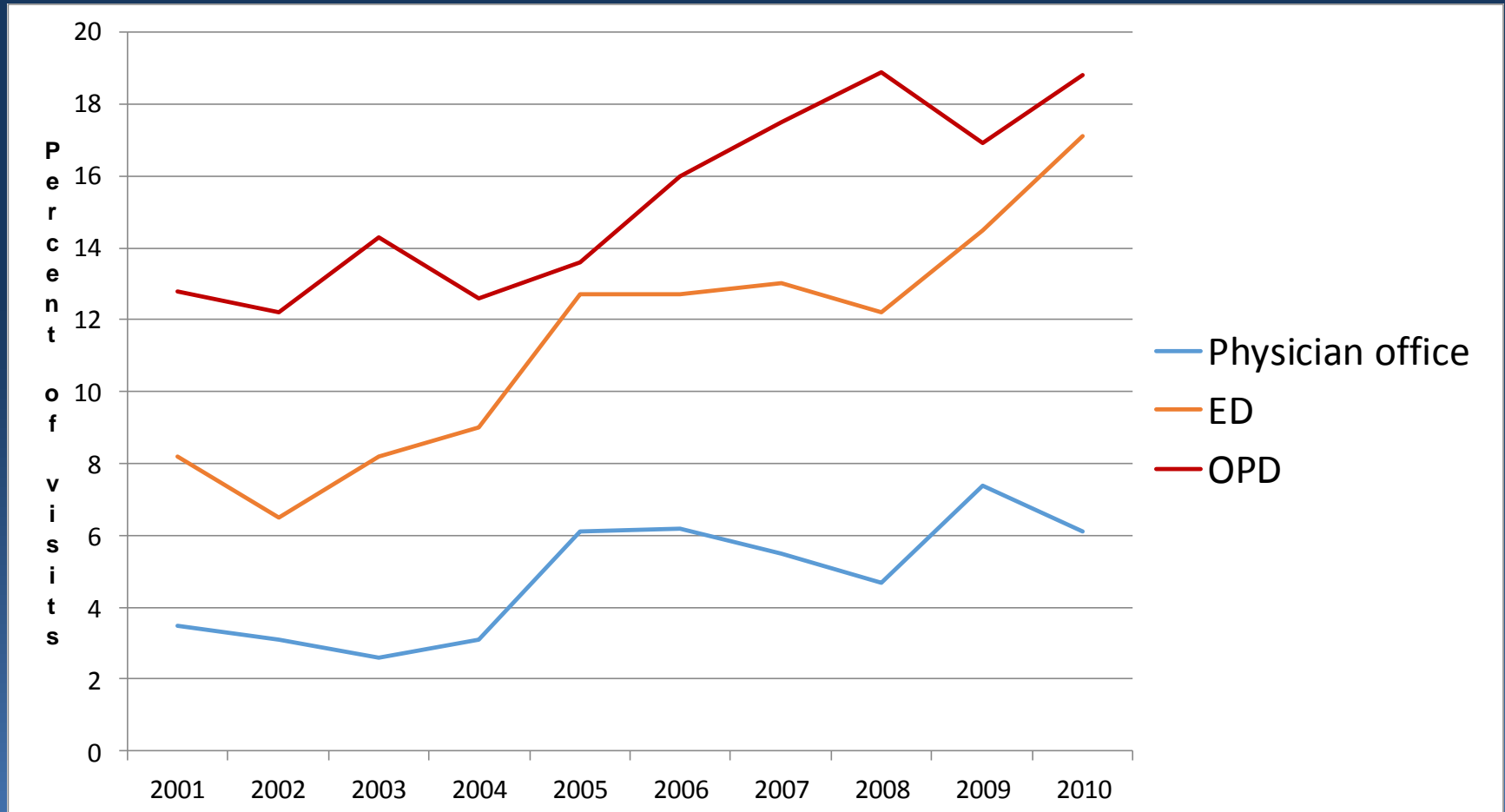
QI Performance—CHC vs. Office-based

Federally Qualified Health Centers and Private Practice Performance on Ambulatory Care Measures

L. Elizabeth Goldman, MD, MCR, Philip W. Chu, MS, Huong Tran, MS, Max J. Romano, BA,

Quality measure	No. of patient visits (<i>n</i>)		FQHC % ^a	PCP % ^a	FQHC vs PCP, unadjusted OR (95% CI)	FQHC vs PCP, AOR (95% CI) ^b
	FQHC	PCP				
Antithrombotic use in atrial fibrillation	30	156	60	61	1.06 (0.50, 2.24)	2.04 (0.33, 12.7)
Ace inhibitor use in congestive heart failure	130	446	51	37	1.96 (1.24, 3.07)*	2.95 (1.65, 5.27)*
Aspirin use in CAD	134	466	57	44	2.87 (1.39, 5.93)*	5.08 (1.98, 13.1)*
β -Blocker use in CAD	123	440	59	47	2.01 (1.18, 3.42)*	3.11 (1.58, 6.16)*
Statin use in CAD	1108	3624	48	46	1.11 (0.81, 1.51)	1.25 (0.90, 1.75)
Inhaled corticosteroids in asthma in adults	378	703	61	54	1.28 (0.86, 1.92)	1.05 (0.65, 1.71)
Inhaled corticosteroids in asthma in children	196	595	66	64	1.08 (0.66, 1.76)	0.98 (0.53, 1.81)
Depression treatment	969	1872	48	43	1.06 (0.83, 1.35)	0.80 (0.60, 1.06)
No use of benzodiazepines in depression	830	1578	91	84	1.77 (1.16, 2.69)*	2.35 (1.38, 3.99)*

Percentage of visits seen by a PA or NP* by setting, United States, 2001-2010



*NP visits in physician offices and OPD includes nurse midwife visits.

SOURCES: National Ambulatory Medical Care Survey & National Hospital Ambulatory Medical Care Survey

NAMCS/NHAMCS sample differences

NP and PA visits underestimated in non-CHC physician office visits

- NAMCS samples physicians' scheduled visits during week
- Visits to NPs or PAs with separate patient panels are excluded

Sample of visits seen by NPs or PAs are nationally representative only in CHCs, hospital outpatient departments (OPDs) and emergency departments (EDs)

- All visits within OPD clinics and EDs are sampled
- Visits to NPs and PAs are sampled directly within sampled CHCs
- CHC data limited by small sample size

More Comprehensive Picture of Primary Care Delivery

Changing landscape on primary care delivery

- CHC oversampling in 2006
- Health Care Workforce Questions in 2013-2015
- Exploratory Studies on NPs/PAs

Health Care Workforce Items: NAMCS 2013-2015

Items included CHC oversampling in 2006

- Clinical staff composition
- Roles and responsibilities
- NPs, PAs, CNM practices
- Certification status of practice as a Patient-Centered Medical Home

Clinical Staff Composition

23. Give FLASHCARD H (p. 22 Flashcard Booklet) and ask: **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)	<input type="text"/>	<input type="text"/>
Non-Physician Clinicians		
Physician Assistant (PA)	<input type="text"/>	<input type="text"/>
Nurse Practitioner (NP)	<input type="text"/>	<input type="text"/>
Certified Nurse Midwife (CNM)	<input type="text"/>	<input type="text"/>
Other Nursing Care		
Registered nurse (RN) (not an NP or CNM)	<input type="text"/>	<input type="text"/>
Licensed Practical Nurse (LPN)	<input type="text"/>	<input type="text"/>
Certified Nursing Assistant/Aide (CNA)	<input type="text"/>	<input type="text"/>
Allied Health		
Medical Assistant (MA)	<input type="text"/>	<input type="text"/>
Radiology Technician (RT)	<input type="text"/>	<input type="text"/>
Laboratory Technician (LT)	<input type="text"/>	<input type="text"/>
Physical Therapist (PT)	<input type="text"/>	<input type="text"/>
Pharmacist (Ph)	<input type="text"/>	<input type="text"/>
Dietitian/Nutritionist (DN)	<input type="text"/>	<input type="text"/>
Other		
Mental Health Provider (MH)	<input type="text"/>	<input type="text"/>
Health Educator/ Counselor (HEC)	<input type="text"/>	<input type="text"/>
Case Manager (not an RN)/Certified Social Worker (CSW)	<input type="text"/>	<input type="text"/>
Community Health Worker (CHW)	<input type="text"/>	<input type="text"/>

Roles and Responsibilities

24. At the office location where you have the most office visits, which type of provider most commonly performs the following tasks?

Mark (X) all that apply.

Based on the staff selected in **Question 23**, a drop-down list will be made available for each of the following questions **a–m**, but will only contain those selected providers as well as "Unknown" and "Task is not performed in this office" if needed.

Mark (X) all that apply.

	Yes	No	Unknown	Task is not performed in this office
a. Records body measurements (such as height and weight) and vital signs (such as BP, temperature, heart rate)	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
b. Performs office-based testing such as EKG and hearing/vision testing (do not include laboratory testing)	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
c. Draws blood for lab testing	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
d. Provides immunizations (includes both childhood and adult)	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
e. Conducts cancer screenings (such as breast, cervical, and prostate screenings)	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
f. Provides behavioral health screenings (such as depression, alcohol and substance abuse)	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
g. Provides counseling services (such as diet/nutrition, weight reduction, tobacco cessation, stress management)	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
h. Manages the routine care of patients with chronic conditions (such as hypertension, asthma, diabetes)	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
i. Writes refill prescriptions for medications	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
j. Enters patient information into medical/billing records	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
k. Performs imaging tests (such as X-rays and ultrasounds)	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
l. Makes referrals (for example, to specialty care, or to community-based services)	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
m. Contacts patients, who are transitioning from hospital or nursing home back to the community	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>

PA/NP/CNM-Related Questions

25. The following questions concern the mid-level providers practicing at the location where you have the most office visits.	Yes, always	Yes, sometimes	No	Unknown/ Not applicable
a. Physician Assistant				
(1) Are PA(s) supervised by someone on-site?	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
(2) Do you sign-off on the medical records of the patients the PA(s) see(s)?	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
(3) Do the PA's patients have a separate log from your patients?	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
(4) Is your approval required before the PA(s) prescribe(s) medication?	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
b. Nurse Practitioner				
(1) Are NP(s) supervised by someone on-site?	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
(2) Do you sign-off on the medical record of the patients the NP(s) see(s)?	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
(3) Do the NP's patients have a separate log from your patients?	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
(4) Is your approval required before the NP(s) prescribe(s) medication?	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
(5) Do/does the NP(s) bill for services using their own NPI number?	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
c. Certified Nurse Midwife				
(1) Are CNM(s) supervised by someone on-site?	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
(2) Do you sign-off on the medical record of the patients the CNM(s) see(s)?	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
(3) Do the CNM's patients have a separate log from your patients?	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
(4) Is your approval required before the CNM(s) prescribe(s) medication?	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
(5) Do/does the CNM(s) bill for services using their own NPI number?	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>

PCMH Certification Status

22. Is your practice certified as a patient-centered medical home?

a Yes – By whom

1 The Accreditation Association for Ambulatory Health (AAAH)

2 The Joint Commission

3 The National Committee for Quality Assurance (NCQA)

What is the level of certification for the NCQA?

(a) Level 1

(b) Level 2

(c) Level 3

4 Utilization Review Accreditation Commission (URAC)

5 Other – Specify

6 Unknown

b No

c Unknown

Collecting Data from NPs/PAs

No nationally representative data

- On NPs/PAs, their practice, their services

Use current NAMCS frame, procedures

- NAMCS current frame: AMA and AOA master files
- Physicians are sampled and visits they saw are sampled

NP/PA Exploratory Studies

Conducted Fall 2013-Spring 2014

Funded by Assistant Secretary for Planning and Evaluation (ASPE)

Purpose

- Feasibility of collecting data on practices characteristics and visits
- Test NAMCS survey procedures

Methods

Convenience sample

- NPs and PAs in ambulatory settings

Practice and Visit Data

- Modified NAMCS induction interview
- Collected up to 30 visits at each NP/PA practice

Debriefing

- Questionnaire completed by NPs, PAs and Interviewers
- In-person meeting with Census and NCHS

Key Results

7 NPs, 5 PAs completed induction interviews
Items

217 Patient Record Forms completed

Feasible to collect data on NP/PA practice
characteristics and health care delivered

- However, modification to the current NAMCS survey would be necessary

Areas of Modification to NAMCS

Recruitment

Visit sampling procedures

Induction interviews

- Difficult sections
- Need tailoring for NP/PA practices

Recruitment

Challenges

- Gaining supervisor/owner approval
- Concerns – data confidentiality and time required to participate

Suggestions

- Develop strategies and materials to gain approval of NP's/PA's supervisor/practice owner
- Continue to address NP's/PA's concern about data confidentiality and time commitment

Visit Sampling Procedures

Challenges

- Validity of patient visit data

Suggestions

- Train interviewers to work effectively with office staff to identify NP/PA visits
- Build in extra time to separate out NP/PA visits

Revisions to Induction Interview

Difficult Sections

- EHR capabilities
- Patient health insurance/care revenue
- Patient load and visits seen at the practice

Suggestions

- Train interviewers to obtain practice information from administrative staff

Revisions to Induction Interview

Some items need tailoring for NPs/PAs

- Physicians supervision/sign off on medical records
- “Supervision” can be regulatory or organizational
- Solo vs. non-solo practice and practice ownership

Suggestions

- Revise questions to be less physician-centric

Conclusion

NAMCS expansion efforts

- CHC oversampling/non-physician clinicians
- Health care workforce items
- NPs/PAs exploratory studies

Result in a more complete picture of the changing primary care workforce and the health care they deliver

Thank you!

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