

Preventive Medicine Physician Supply and Distribution

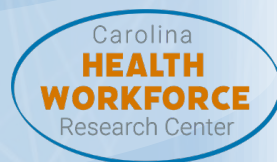
Thomas C. Ricketts, PhD, MPH
Deborah Porterfield, MD, MPH
Erin Fraher, PhD, MPP

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HRSA/BHW/DMD
Preventive Medicine Residency Program
Grantee Conference Call



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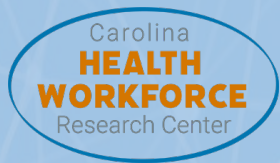
This report was prepared by UNC's Carolina Health Workforce Research Center in response to a rapid response request by HRSA's National Center for Health Workforce Analysis



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In brief: the Preventive Medicine specialty

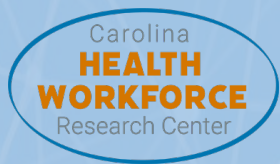
- Preventive Medicine (PM) is the specialty of medical practice that focuses on the health of individuals, communities, and defined populations. Its goal is to protect, promote, and maintain health and well-being and to prevent disease, disability, and death. (ABPM)
- PM emerged in the 1940s as a specialty board in public health, and later added Occupational, Aerospace, General Preventive Medicine, Undersea and Hyperbaric, Addiction, and Clinical Informatics as specialties Overseen by the American Board of Preventive Medicine
- HRSA supports *Preventive Medicine Residency Program* (Budget in 2020, \$17M.)



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Growing need for PM physicians

- Increasing emphasis on population health practice in the US in communities and health care systems
 - “value-based care, “Triple Aim,” “social determinants of health”
- More urgently: the COVID-19 pandemic, not to mention ongoing epidemic of overdose misuse and deaths
- Growing need for physicians with unique set of skills: planning and evaluation of health services, management of healthcare organizations, epidemiology, public health programs and policy, research into causes of disease and injury in population groups
- **In sum: we need physicians with skills in population health management and population medicine**

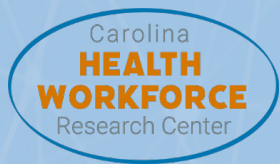


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Signs of a shrinking workforce

- The last characterization of the PM workforce is a 2000 report* that described
 - decline in PM workforce from 1970-1997 (n=7734→6685)
 - decline in percentage of PM physicians among all US physicians (2.1%→0.9%)
- Woeful lack of workforce research since then

*Lane, D. S. 2000. "A Threat to the Public Health Workforce: Evidence from Trends in Preventive Medicine Certification and Training." *American Journal of Preventive Medicine* 18(1): 87-96.



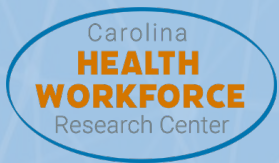
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Research questions:

- How many preventive medicine physicians currently practice in the U.S.?
- Has the number/proportion of preventive medicine physicians changed in recent years?
- What are the demographics (age, sex, race/ethnicity) of preventive medicine physicians, are there any data available to estimate the number of preventive medicine physicians who identify as American Indian/Alaska Native?
- In what kinds of practice settings are preventive medicine physicians working?
- In what kinds of activities are preventive medicine physicians engaged?
- Are there estimates of the numbers of preventive medicine physicians practicing in rural areas?

Methods

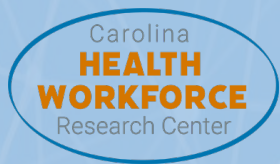
- Secondary analysis of two datasets
 - The American Board of Preventive Medicine website: current diplomates by their specialty, city and state.
<https://certification.theabpm.org/physician-lookup>
 - The AMA Masterfile® with data from the American Board of Medical Specialties
- Rural/urban classification and underserved area designations from the Area Health Resource File merged with AMA data
- Rural/urban are OMB Metropolitan definitions for counties



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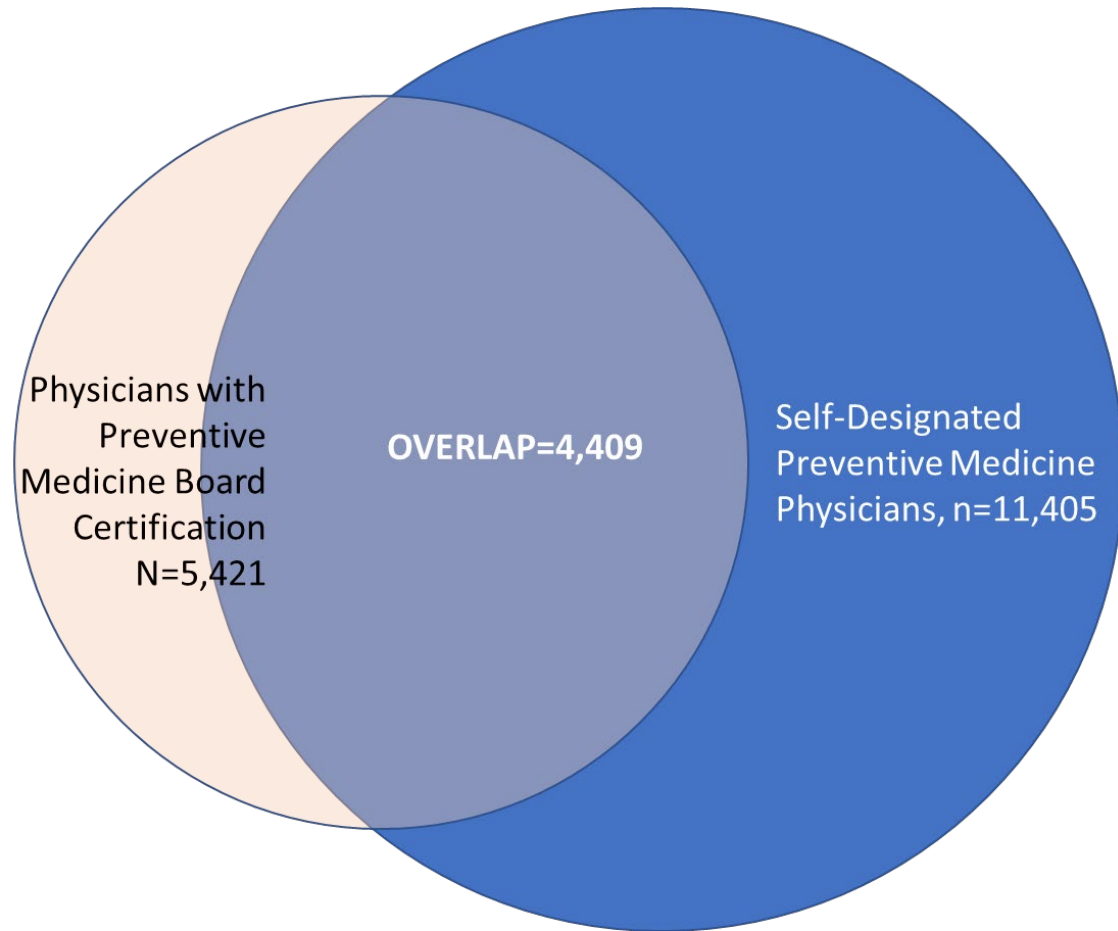
AMA Masterfile®

- Data in this analysis includes
 - Active physicians. Excludes inactive and deceased physicians as well as those over the age of 79
 - ABMS certification data also in file (board name, certification date, expiration date) x 7 for some years
 - Also contains data on “self-described” specialty 1 and 2
 - Sex and birth year
 - Practice location (county)



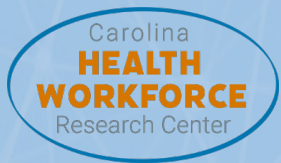
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Keep an eye on the definition (data source)



Source: AMA Masterfile with ABMS data, as reported in 2017 AMA Masterfile

How many preventive
medicine physicians
currently practice in the
U.S.?



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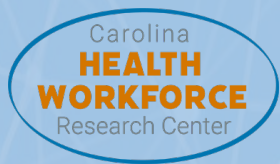
ABPM Board Certifications

N = 9270 Physicians

	ABPM <u>Certifications</u> , 2018
Public Health and General Preventive Medicine	2475
General Preventive Medicine	N/A
Public Health	431
Occupational Medicine	3168
Aerospace Medicine	1171
Subtotal core PM subspecialties	7255
Undersea and Hyperbaric Medicine	281
Addiction Medicine	1072
Clinical Informatics	1579
Total Certifications	10187

Source: American College of Preventive Medicine, ABPM, ABMS data 2020 and Lane, 2000. Includes only those in the 50 United States and District of Columbia. The 1999 data do not specify geographic location.

Has the number/proportion of preventive medicine physicians changed in recent years?



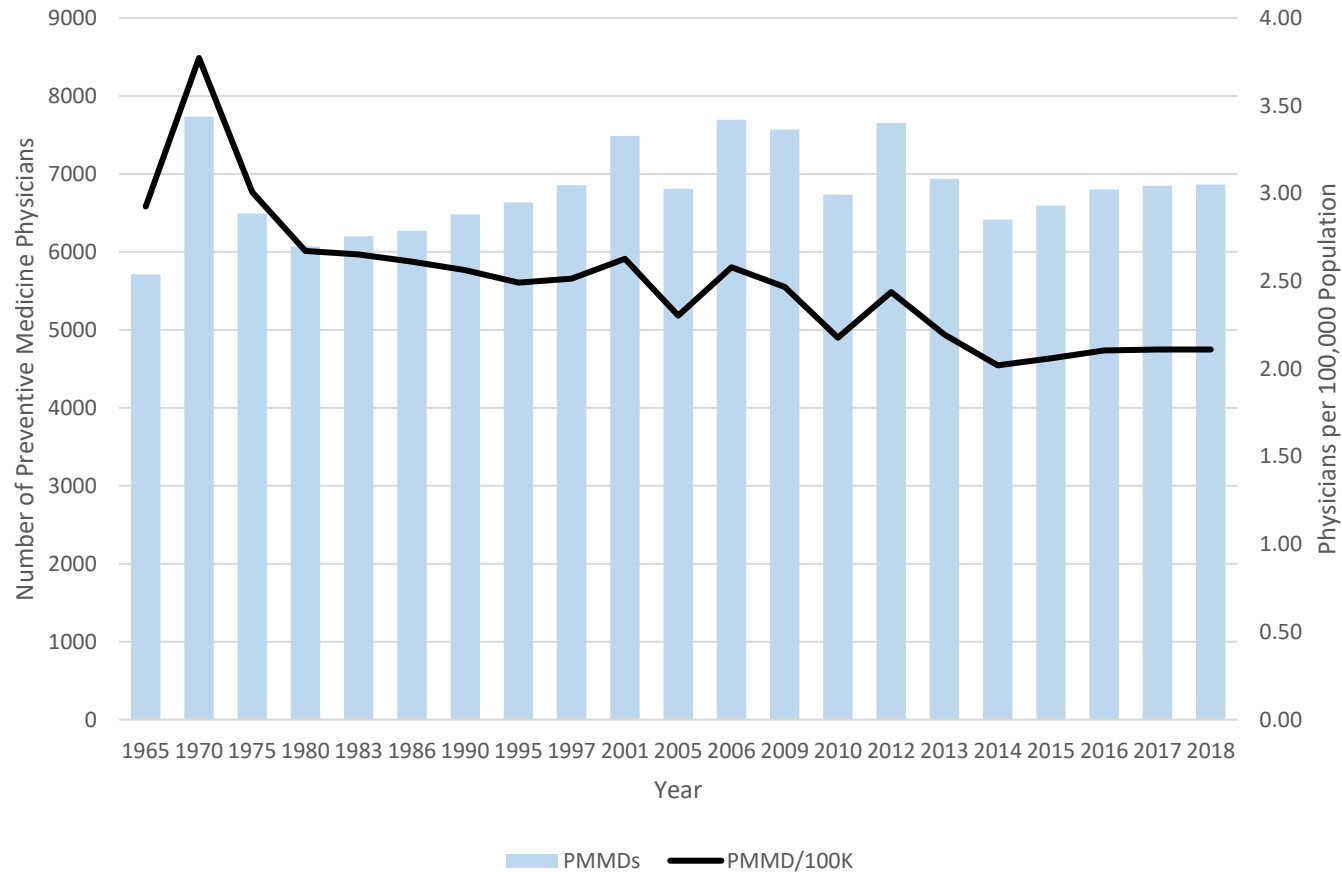
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ABPM Board Certifications and Certified Physicians

	ABPM <u>Certifications</u> , 2018	ABPM Certified <u>Physicians</u> , 1999
Public Health and General Preventive Medicine	2475	1405
General Preventive Medicine	N/A	511
Public Health	431	836
Occupational Medicine	3168	2442
Aerospace Medicine	1171	897
Subtotal core PM subspecialties	7255	6091
Undersea and Hyperbaric Medicine	281	
Addiction Medicine	1072	
Clinical Informatics	1579	
Total Certifications	10187	
Total Physicians	9270	6091

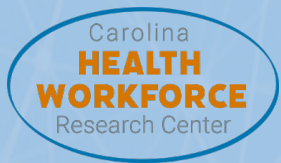
Source: American College of Preventive Medicine, ABPM, ABMS data 2020 and Lane, 2000. Includes only those in the 50 United States and District of Columbia. The 1999 data do not specify geographic location.

Active, Self-Designated PM Physicians (AM, GPM, PHPM, OM)



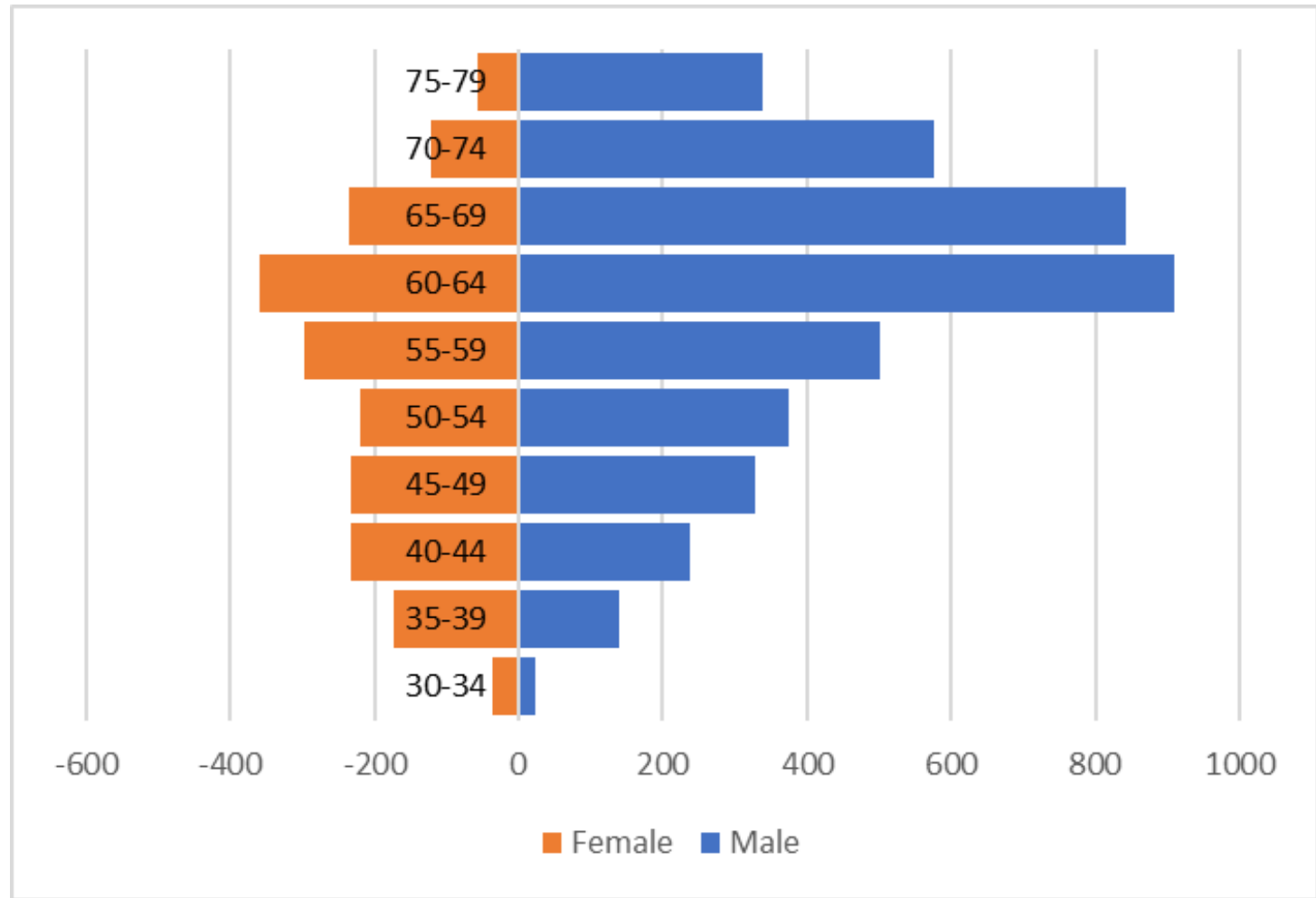
[AAMC, 2015; Lane, 20000; Pearson, 1998, AMA MF 2000 – 2019.]

What are the demographics
(age, sex, race/ethnicity) of
preventive medicine
physicians?



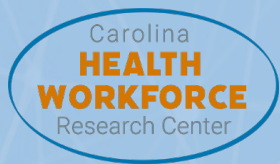
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Board Certified Preventive Medicine Physicians, 2017



Race/ethnicity of PM physicians

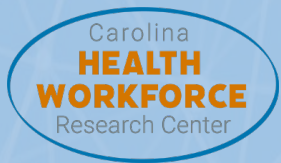
- Race/ethnicity data no longer available in the Masterfile versions currently available
- However, in the 2005 AMA Masterfile
 - 5 Native Americans (<0.01%) with a primary specialty of preventive medicine
 - 392 (4.1%) physicians self-identified as “Black-Non-Hispanic”
 - 260 (2.7%) as Hispanic



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In what kinds of practice settings are preventive medicine physicians working?

In what kinds of activities are preventive medicine physicians engaged?



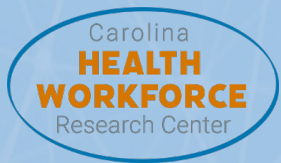
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Major Professional Activity (MPA), 2017

Board-Certified Prev Med Physicians			Self Designated Prev Med Physicians		
	n	%		n	%
Administration	828	15.3%	Administration	1062	14.8%
Hospital practice	894	16.5%	Hospital practice	895	12.5%
Resident	19	0.4%	Resident	331	4.6%
Locum Tenens	10	0.2%	Locum Tenens	14	0.2%
Teaching	153	2.8%	Teaching	134	1.9%
Not Classified	267	4.9%	Not Classified	432	6.0%
Office practice	2667	49.2%	Office practice	3549	49.6%
Other	225	4.2%	Other	293	4.1%
Research	358	6.6%	Research	452	6.3%
Total	5421	100.0%	Total	7162	100.0%

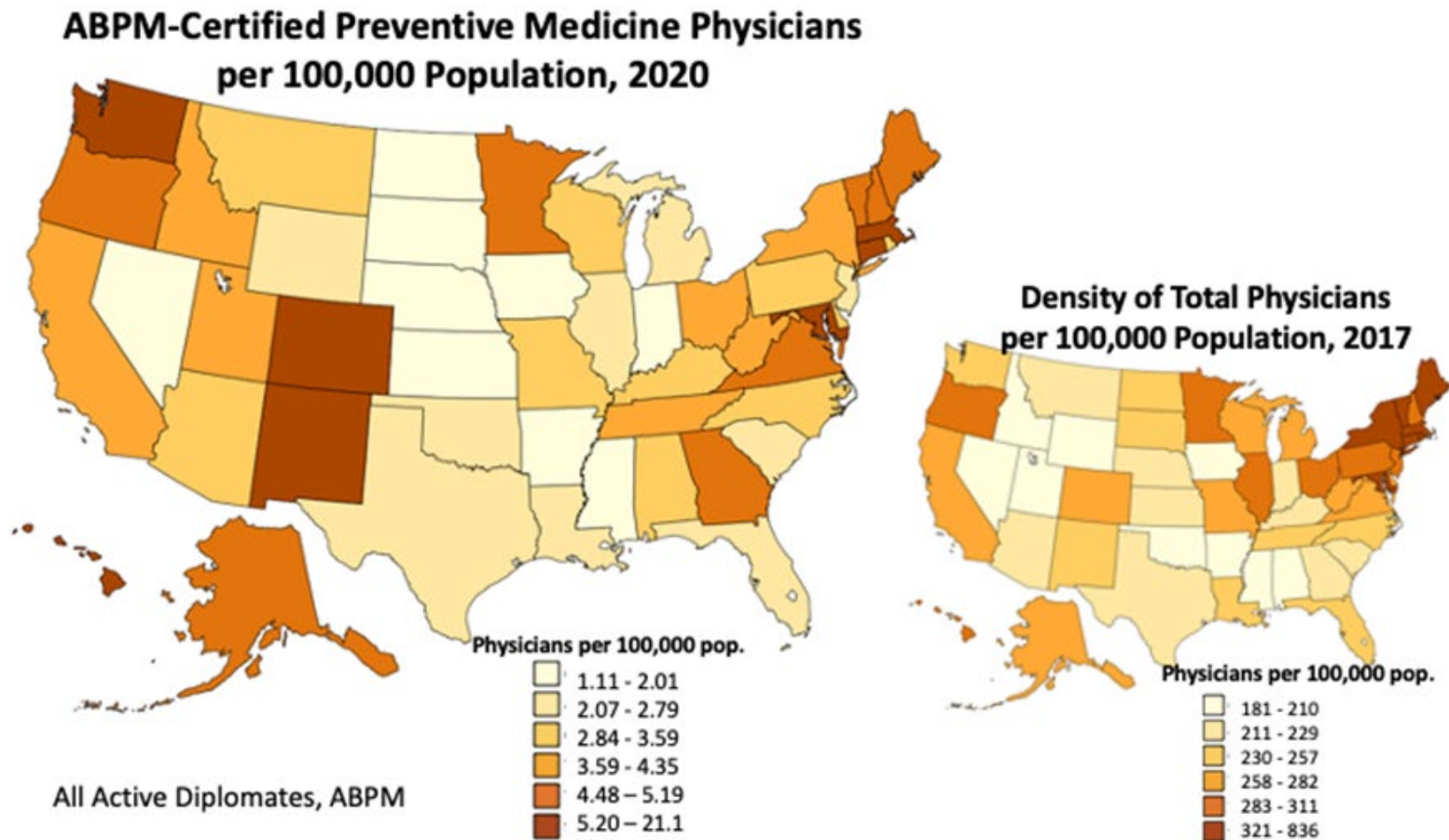
Source, AMA Masterfile, 2017

Are there estimates of the numbers of preventive medicine physicians practicing in rural areas?



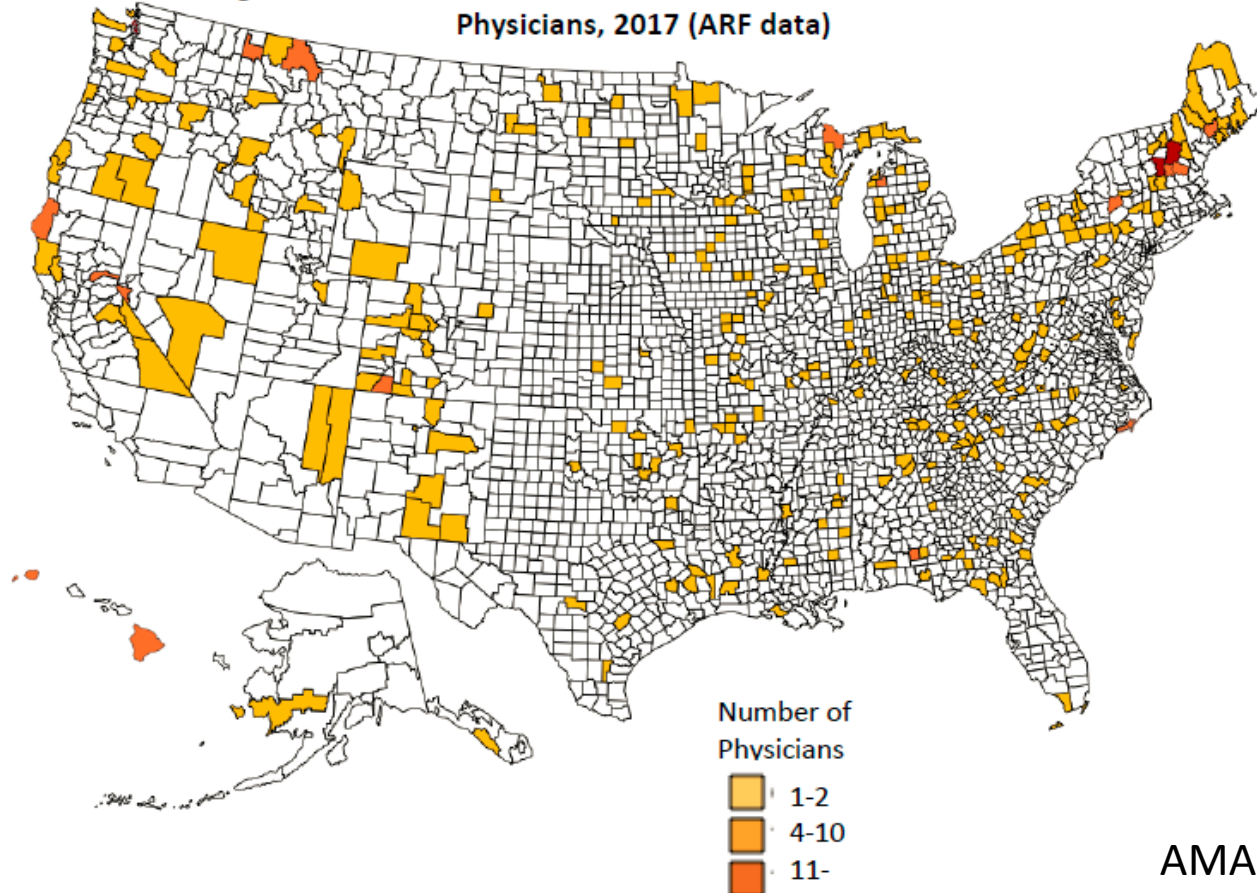
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Distribution of Board-Certified PM Physicians per 100,000 population, 2017



Non-Metro Counties with Active Preventive Medicine Physicians, 2017

Figure 7. Non-Metro Counties with Active Preventive Medicine Physicians, 2017 (ARF data)

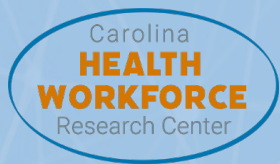


Overall, only **119 (1.5% of the total)** preventive medicine specialists **practice in nonmetro or rural counties** and **377 (4.7%)** in “micropolitan” counties.

AMA 207 and ARF

Conclusions

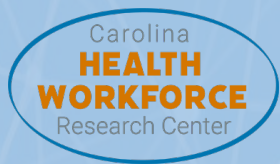
- The Preventive Medicine workforce is declining in proportion to the US population
 - True in 2000 (Lane, 2000) and true today
- A majority of PM physicians are age 60+; the pyramid figure indicates training is not keeping up with retirement/death
- There is extremely little penetration of the PM workforce into rural areas
- Approximately ½ the physicians who self-identify as PM do not have a PM board



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Limitations

- Measurement and definition of an active PM physician is complex
 - A significant number of PM-trained physicians are not boarded, may not self identify the specialty resulting in undercounting some physicians
 - Approximately ½ the physicians who self-identify as PM do not have a PM board, resulting in overcounting other physicians
- There are limitations in publicly available ABMS data and in the AMA Masterfile

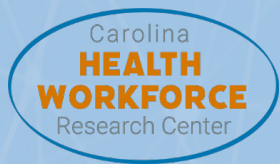


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How many PM physicians are needed?

- 2007 National Academy of Science (NAS) report called for a sharp expansion in the numbers of physicians trained in PM
 - 20,000 physicians needed in public health careers, an increase of 10,000 over the current number engaged in public health careers
 - recommended, based on this estimate of overall need, that at least 1,350 new PM specialists should be trained each year until the target number was reached

(Institute of Medicine, 2007)



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Policy implications

- Imminent retirements: expanded training is needed just to maintain supply per population
- Redesign training to focus more on rural, underserved and community-based training (RRPD NOFO is start)
- Leaders and policy makers need better understanding of:
 - Reasons for low output of training programs
 - Why need \neq demand. We “need” more PM physicians (especially post-pandemic), but the market does not “demand” them
- We should expand stakeholder collaborations (federal agency, academia, associations) to influence policy and to develop programs and platforms for promoting the field

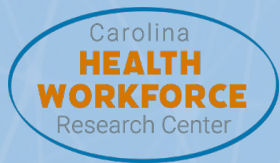
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