



CELEBRATING OUR PAST,
PRESENT, AND FUTURE

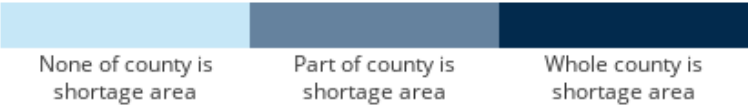
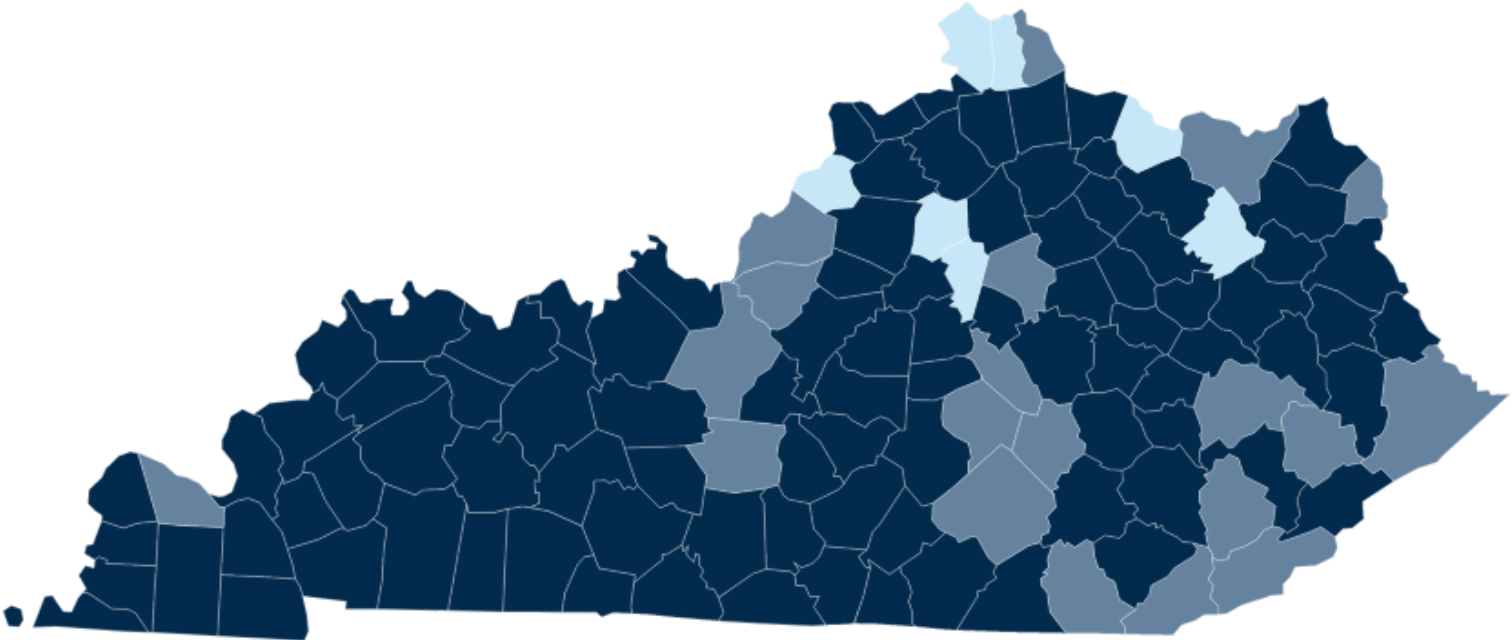
Health Care Workforce Strategies: Recent Innovations in Kentucky

NCSL Health Innovations Task Force ■ Denver, CO ■ July 31, 2022

David A. Gross, MPA: Director, Northeast Kentucky AHEC

Health Professional Shortage Areas: Primary Care, by County, 2021 - Kentucky

so, what's the
problem?

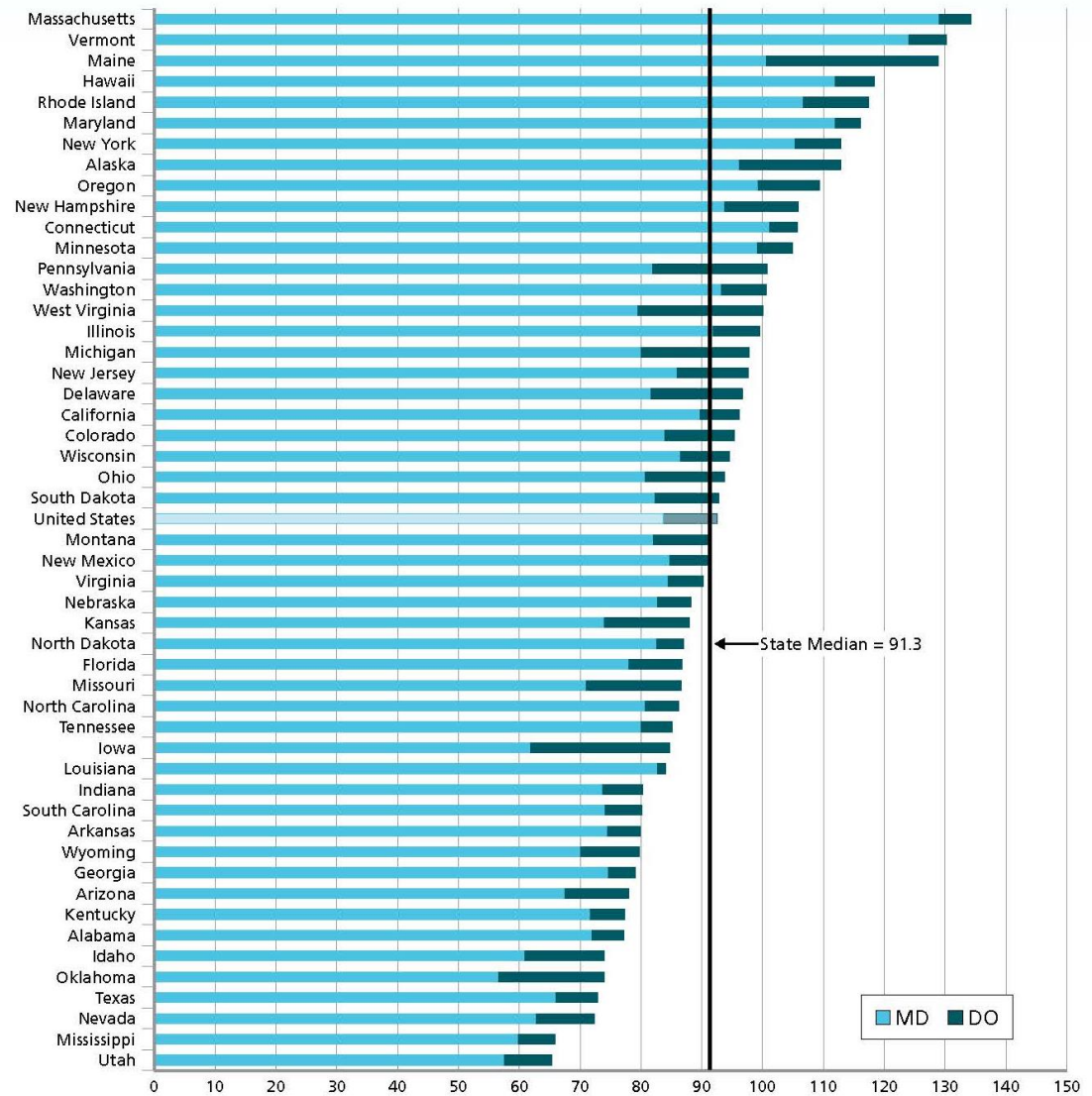


Source: data.HRSA.gov, April 2021.

2019 State
Physician
Workforce Data
Book **Section 1:**
Physician Supply

Figure 1.3. Active Primary Care Physicians per 100,000 Population by Degree Type, 2018

Sources: July 1, 2018, population estimates are from the U.S. Census Bureau (Release date: December 2018). Physician data are from the 2019 AMA Physician Masterfile (December 31, 2018). Physicians whose school type was unavailable (n=28) are excluded.



Why such a shortage?

- ◆ A comparatively low number of native students apply to and are accepted into medical school
- ◆ Specific barriers to Appalachian students:
 - ◆ Inadequate academic preparation;
 - ◆ Limited exposure to health care occupations;
 - ◆ Low self-confidence; and
 - ◆ Financial considerations



Sources: Casey et al., 2005; Arnett, Weaver, and Elam, 2013

By Scott A. Shipman, Andrea Wendling, Karen C. Jones, Iris Kovar-Gough, Janis M. Orlowski, and Julie Phillips

The Decline In Rural Medical Students: A Growing Gap In Geographic Diversity Threatens The Rural Physician Workforce

DOI: 10.1377/hlthaff.2019.00924
HEALTH AFFAIRS 39,
NO. 12 (2019): 2011-2018
©2019 Project HOPE—
The People's People's Health
Foundation, Inc.

ABSTRACT Growing up in a rural setting is a strong predictor of future rural practice for physicians. This study reports on the fifteen-year decline in the number of rural medical students, culminating in rural students representing less than 5 percent of all incoming medical students in 2017. Furthermore, students from underrepresented racial/ethnic minority groups in medicine (URM) with rural backgrounds made up less than 0.5 percent of new medical students in 2017. Both URM and non-URM students with rural backgrounds are substantially and increasingly underrepresented in medical school. If the number of rural students entering medical school were to become proportional to the share of rural residents in the US population, the number would have to quadruple. To date, medical schools' efforts to recognize and value a rural background have been insufficient to stem the decline in the number of rural medical students. Policy makers and other stakeholders should recognize the exacerbated risk to rural access created by this trend. Efforts to reinforce the rural pipeline into medicine warrant further investment and ongoing evaluation.

As of the 2010 census nearly sixty million people lived in rural communities in the US, and almost one in five people in the US were rural residents.¹ Although popular media often highlight compelling narratives of a specific region or rural community and seek to make broad generalizations about rural depopulation, the overall size of the US population has been stable for several

decades.² However, rural settings, which are disproportionately affected by higher rates of morbidity³ and infant mortality,⁴ Recent losses of obstetric services have also disproportionately affected rural counties that have high percentages of minority women of reproductive age.⁵ More than 15 percent of rural residents are members of racial/ethnic minority groups, and this percentage is increasing.^{6,7} Research has demonstrated that members of rural minority groups—particularly black, Hispanic, and American Indian/Alaska Native populations—face higher chronic disease burdens and worse access to health care.⁸ Rural settings, which

Scott A. Shipman (sshipman@aamc.org) is director of primary care initiatives and clinical innovations at the Association of American Medical Colleges (AAMC), in Washington, D.C.

Andrea Wendling is director of rural health in the Department of Family Medicine, Michigan State University, in Boyne City.

Karen C. Jones, now retired, was a research analyst in the Workforce Studies Unit, AAMC, when this work was performed.

Iris Kovar-Gough is a research librarian at the Michigan State University College of Human Medicine, in East Lansing.

Janis M. Orlowski is chief health care officer at the AAMC.

Julie Phillips is assistant dean for student career and professional development in the Office of Student Affairs and Services, Michigan State University; and an associate professor at the Sparrow-Michigan State University Family Medicine Residency Program, in Lansing.

Not just a KY problem

"... rural students representing less than 5 percent of incoming medical students in 2017."

"To date, medical schools' efforts to recognize and value a rural background have been insufficient to stem the decline in the number of rural medical students."

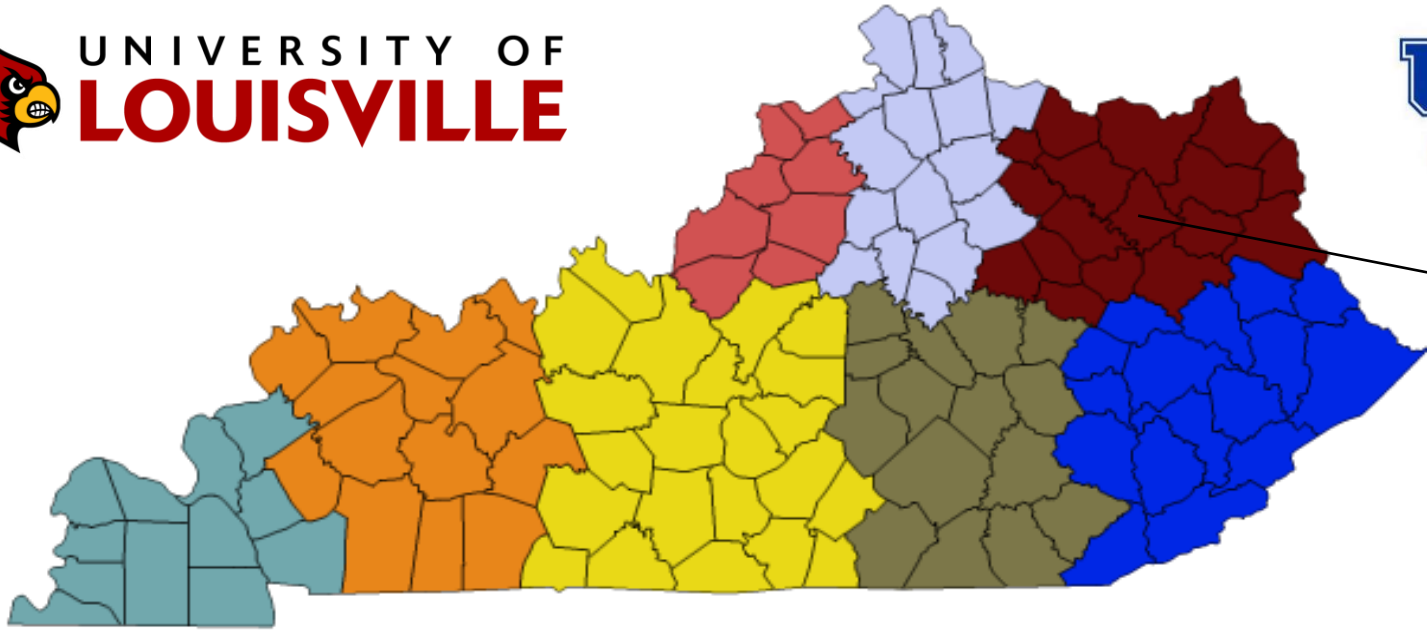
"Efforts to reinforce the rural pipeline into medicine warrant further investment and ongoing evaluation."

'What the heck's an AHEC?'

- ◆ Created by Congress in 1971 to enhance access to quality health care
 - ◆ Kentucky AHEC began in early 1980s (hosted centers)
- ◆ Four primary strategies:
 - ◆ Health careers promotion, facilitate clinical rotations, continuing education, community health initiatives



An existing statewide network



- Purchase AHEC
- West AHEC
- South Central AHEC
- Northwest AHEC
- North Central AHEC
- Southern AHEC
- Northeast AHEC
- Southeast AHEC

NE KY med school data analysis

Matriculants/applicants:

◆ UK COM (2009-'13)	26/115 = 22.6%
◆ UofL SOM (2009-'13)	27/101 = 26.7%
◆ UPike KyCOM (2009-'13)	40/95 = 42.1%
◆ TOTAL	93/311 = 29.9%

- ◆ Two NE AHEC counties (Menifee and Nicholas) had 0 applications to in-state medical schools from 2009-'13
 - ◆ An additional county (Powell) had 0 matriculants
- ◆ From 2009-'13, 12 NE AHEC service counties had four or fewer matriculants to in-state medical schools
- ◆ From 2011-'13, NE AHEC ranked 4th, 5th, and 6th, respectively, among KY's eight regional AHECs for applications to the UK COM

Our intervention

- ◆ Successfully Training and Educating Pre-medical Students (STEPS): Aimed at producing more – and more competitive – medical school applicants from northeastern Kentucky
- ◆ Target pre-med juniors from the Northeast KY AHEC service region
- ◆ Online MCAT Prep:

	<u>Kaplan (2014-'19)</u>	<u>The Princeton Review (2020-'21)</u>
◆ Retail Price	\$2,300 each	\$1,249 each (via NAO)
◆ NE KY AHEC	\$1,000 each	\$949 each
◆ Participants:	\$300 each	\$300 each

STEPS curriculum

- ◆ Online MCAT Prep
- ◆ Physician shadowing
- ◆ Application process tutorial
- ◆ Mock medical school interviews
- ◆ Assistance with personal statements and letters of recommendation
- ◆ Financial review
- ◆ Admission process overviews from the three in-state medical schools

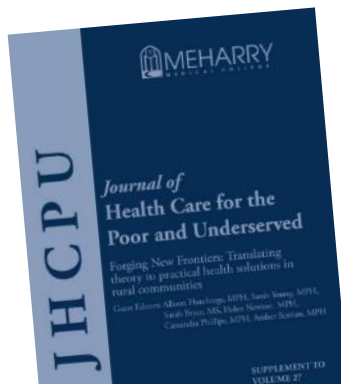
American Medical College
Application Service

AMCAS



STEPS' early outcomes

- ◆ First three cohorts (2013-'16):
 - ◆ 28 total participants
 - ◆ Of the 25 students who met all program requirements, 22 matriculated to medical school
 - ◆ Participants' average MCAT scores increased by 4.6 points from their practice test to the actual exam in 2014, by 7.6 points in 2015, and by 8.5 points in 2016
 - ◆ Each participant who took the practice test produced a higher score on his/her actual MCAT.



For more information:

- ◆ Gross DA, Mattox LC, Winkleman N. Priming the physician pipeline: A Regional AHEC's use of in-state medical school data to guide its health careers programming. *Journal of Health Care for the Poor and Underserved*. 2016;27(4A):8-18.

STEPS participant feedback

- ◆ *"STEPS helped prepare me for medical school admission in ways I wouldn't have been able to do alone."*
- ◆ *"Thank you for all you've done to help me get into medical school and for just being there to answer my questions!"*
- ◆ *"STEPS is a program devoted to guidance and support. Without it, I wouldn't have felt nearly as prepared for the MCAT or the application process as I did."*

11 / 12

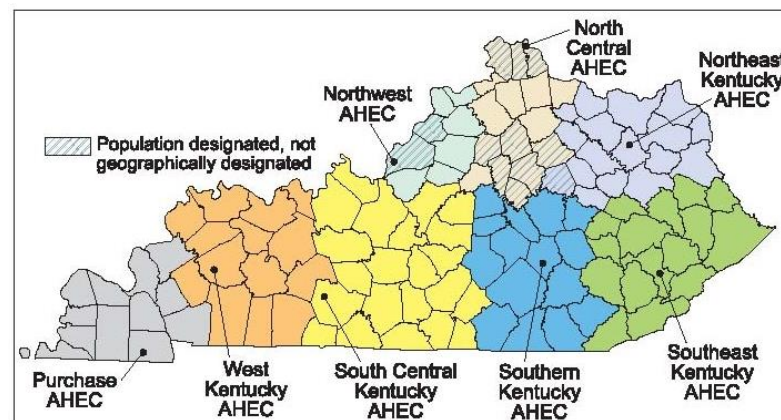


STEPS' overall outcome

56 / 70

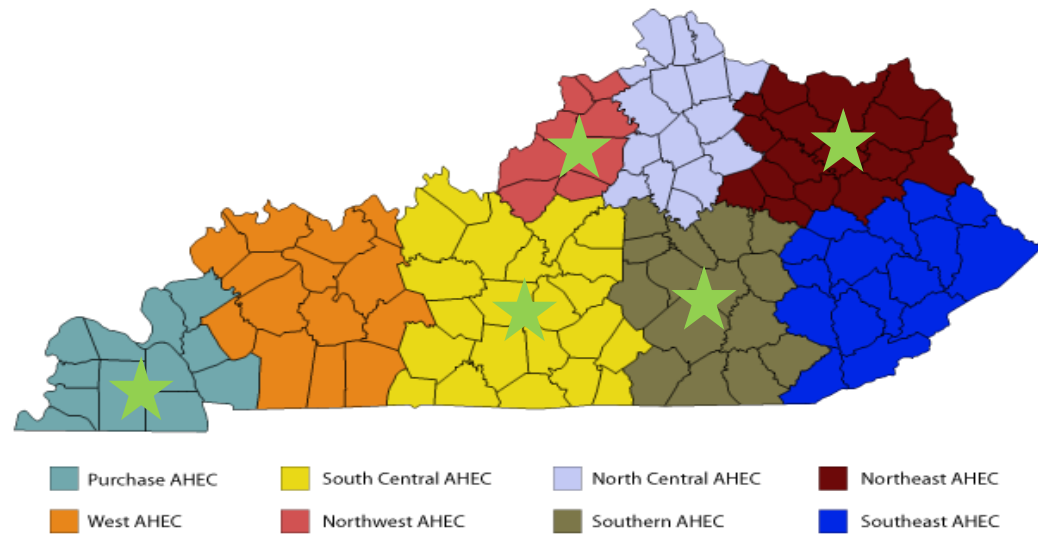
More about STEPS

- ◆ Featured as a Rural Health Information Hub 'Model that Works'
- ◆ Received 2018 NAO Center of Excellence Award for Distribution
 - ◆ 'Improving health care workforce throughout the nation, particularly among rural and underserved areas/populations'
- ◆ KY Primary Care Office contracts (2018-'24) to replicate STEPS concepts to 7 other KY AHECs:
 - ◆ Expand interest in pre-med programming
 - ◆ County-level data tracking on statewide basis
 - ◆ Inter-region collaboration (physician shadowing, mock interviews, etc.)



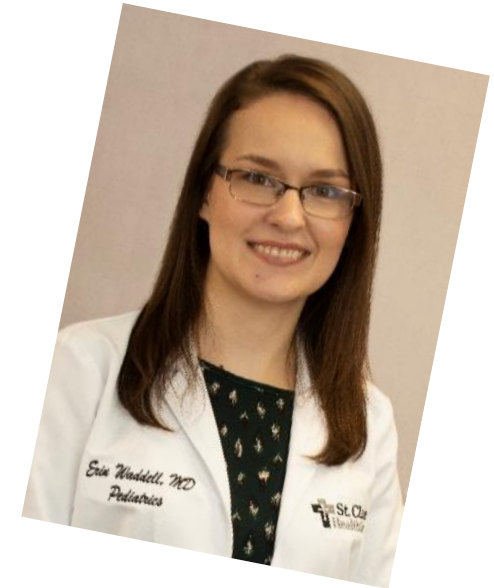
Results thus far

- ◆ Currently five AHEC pre-med prep programs in KY
 - ◆ Three other AHECs engaged in inter-region physician shadowing, mock interviews, and other activities



Results thus far (continued)

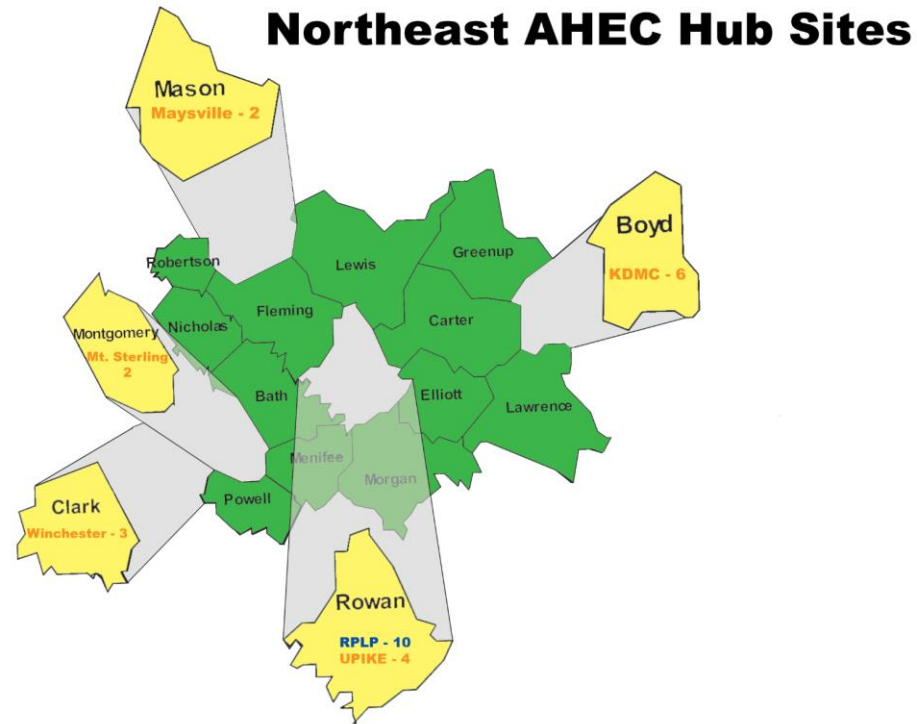
- ◆ Increased number of pre-med prep participants



Results thus far (continued)

- ◆ Collection of four years' worth of county-level medical school matriculation data on a statewide basis
 - ◆ 38/59 participants (64%) from AY19 matriculated to med school in '20 or '21
 - ◆ 33 of those 38 students (87%) are attending a KY med school
 - ◆ 33/57 participants (58%) from AY20 matriculated to med school in '21
 - ◆ 27 of those 33 students (82%) are attending a KY med school
 - ◆ **TOTALS:** 71/116 (61%) participants are in med school ... and 60/71 students (85%) are in a KY med school
 - ◆ Continue tracking annually ... and follow participants into residency/practice

The payoff for my region

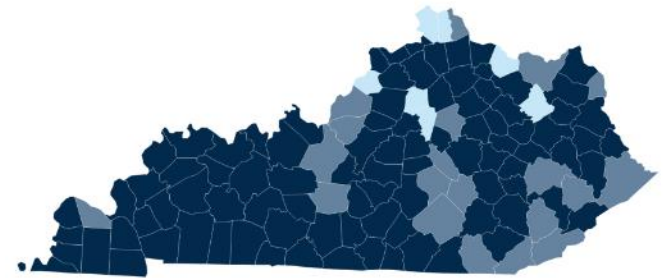


University of Pikeville
17

University of Kentucky
10



The ultimate payoff!



Kentucky AHEC's State Advocacy Success Story!

Declining funds

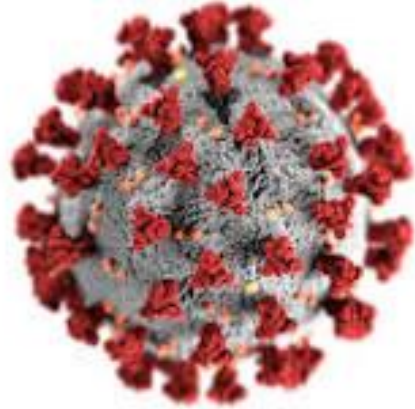
- ◆ State/affiliated university funding (from FY16 to FY22):

- 57%

- \$204,495



Health care workforce shortage



=



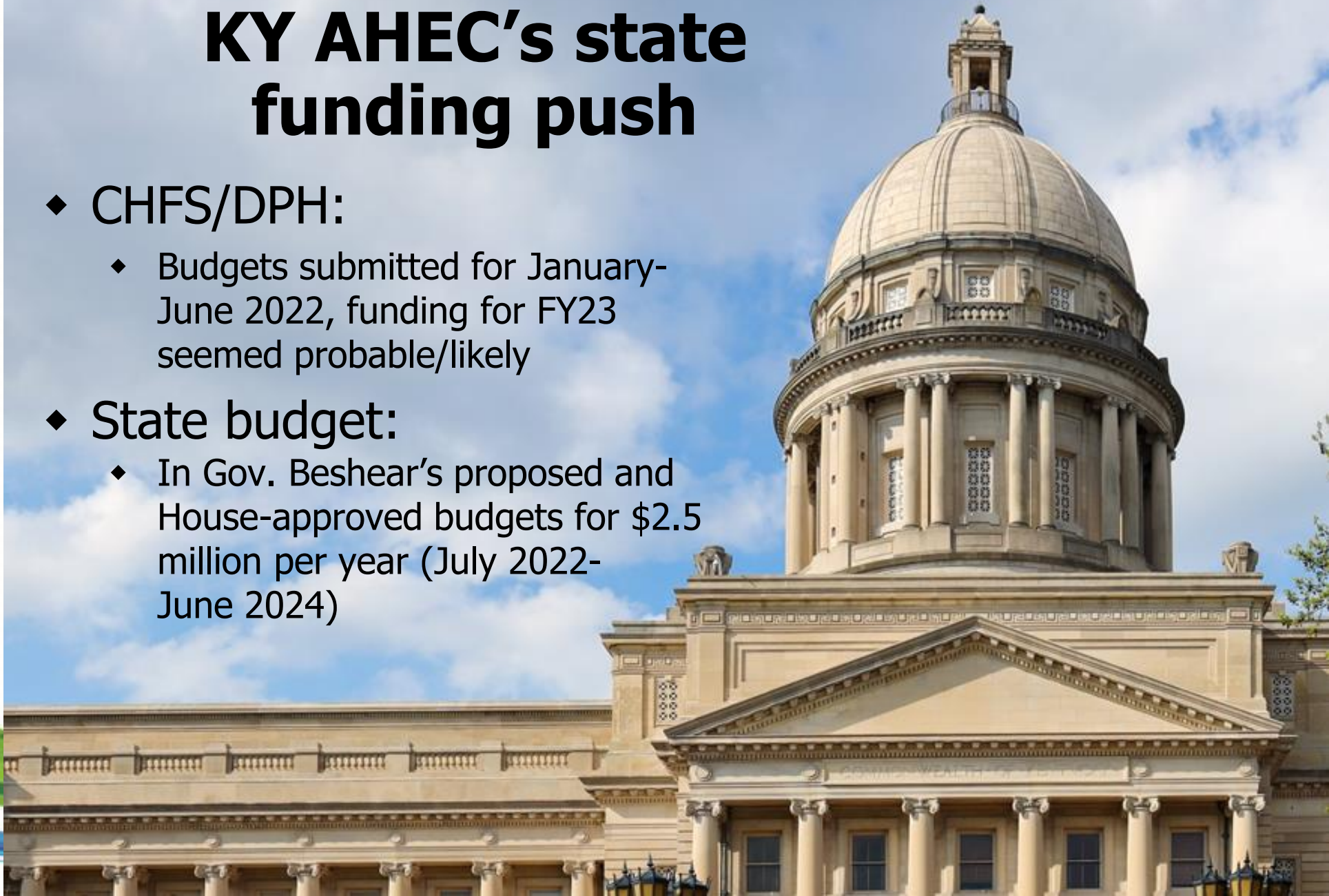
- ◆ KY nursing supply:
 - ◆ Governor declared state of emergency in December 2021
 - ◆ An additional 16,000 nurses needed by 2024

Reconnect with partners

- ◆ Agencies KY's regional center directors met with (virtually):
 - ◆ KY Primary Care Office
 - ◆ KY Primary Care Association
 - ◆ KY Cabinet for Health and Family Services/DPH
 - ◆ KY Council on Postsecondary Education
 - ◆ The Governor's Office (Sr. Advisor Rocky Adkins)
 - ◆ KY Rural Health Association
 - ◆ KY Medical Association
 - ◆ KY Hospital Association
 - ◆ Select state legislators

KY AHEC's state funding push

- ◆ CHFS/DPH:
 - ◆ Budgets submitted for January-June 2022, funding for FY23 seemed probable/likely
- ◆ State budget:
 - ◆ In Gov. Beshear's proposed and House-approved budgets for \$2.5 million per year (July 2022-June 2024)



Focus: Senate (A&R Comm.)



Sen. Robin Webb
(Boyd, Carter,
Greenup)



Sen. Stephen West
(Fleming, Lewis,
Mason, Nicholas,
Robertson, Rowan)

(502) 564-8100



Northeast Kentucky
Area Health Education Center

It got approved!

- ◆ \$2.5 million for KY AHEC Program in each of the next two fiscal years
 - ◆ \$250,000 per year for each regional center and program office
 - ◆ What we'll be doing:
 - ◆ Extending the health careers pipeline (back to school!)
 - ◆ Strengthening the health careers pipeline (e.g., MCAT prep)
 - ◆ Developing a statewide nursing pipeline (from HS to employment)
 - ◆ Growing our staffs (for my center, two new health careers coordinators and two new educational assistants)

Going forward

- ◆ Our pledge to legislators: quarterly progress reports
- ◆ Our hope: strong results will lead to an even larger funding amount in two years
- ◆ Stay connected: continue to engage with statewide partners (e.g., KY CPE funding opp.)
- ◆ Don't close any doors: CHFS/DPH funding opps are still available to us



David A. Gross, MPA
Director, Northeast Kentucky AHEC
316 W. Second Street, Suite 203
Morehead, KY 40351
david.gross@st-claire.org
(606) 783-6468