

# EMERGING DIVERSITY: A MINORITIES PIPELINE

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## BACKGROUND

- Rural medical education (RME) is established worldwide to address health care needed among rural populations.
- There is little published on the effectiveness of RME to produce physicians for rural minority populations and, thus, little to guide an evidence-based approach to rural minority medical education.
- This study of rural medical educators sought experiential knowledge of medical education that has produced physicians for minority rural communities.

# BACKGROUND

- The population to which this knowledge is to be directed are poor southern blacks who are concentrated in rural counties and comprise the “eighth America” known for decreased access to health care.<sup>1</sup>
- Eighteen Alabama counties contribute heavily to this population.



## BACKGROUND

- The University of Alabama Rural Medical Scholars Program (RMSP) has produced 61 physicians (five black) who initiated practice in rural Alabama.
- Forty-nine of these located initially in 37 white-dominant counties and 12 among seven of the 18 counties with large black populations.
- Currently, four black and five white RMSP graduates practice in four of the 18 minority counties.
- All the remaining rural RMSP graduates are white.



## BACKGROUND

- The “grow your own” motif of the RMSP is that communities produce physicians who have increased likelihood of returning home or to a similar environment.<sup>2,3</sup>
- We have determined that the RMSP must emphasize minority recruitment in order to provide equitable distribution of medical care within the minority dominant counties.

## METHODS

- Three focus groups were conducted concurrently at the 2017 RME Conclave.
- Each focus group consisted of 10-12 participants and was facilitated by a moderator and co-moderator team.
- Moderators were primarily university faculty and educators from the Alabama Cooperative Extension Service.

# METHODS

- The focus groups lasted approximately 3 ½ hours and included the following:
  - Rural medical educators from across the United States (N= 16)
  - Alumni of the University of Alabama (N=4)
  - Stakeholders in rural medication education in AL (N= 4)
  - Administrators from the UA (N= 1)
  - Students in Rural Scholars Programs at UA (N=7)

# METHODS

- Focus group participants were recruited through numerous methods, including:
  - National Rural Health Association Rural Medical Educators Group
  - Contacts of leaders in rural medical education in Alabama
  - Alumni/Graduate/current students of/in Alabama

# METHODS

- A 17-question guide was developed by the research team to ensure the same questions were asked in each focus group and that questions were asked in the same sequence and manner.
- The question guide was provided to moderators and co-moderators prior to the focus group to allow time for them to review and seek clarification from the research team, if needed, prior to the Conclave.

# METHODS

- Each focus group moderator and co-moderator were trained by members of the research team
- Note-takers were trained and provided standardized note-taking forms.
- Each focus group had multiple note-takers and was digitally recorded to ensure that the complete conversation was captured in the exact words/statements of the participants.
- All digital recordings were transcribed.

# METHODS

- A sub-set of the research team analyzed focus group data
- The research team analyzed the data using open coding, line-by-line coding, and focused coding
- Data analysis was followed by a virtual meeting where the research team came to consensus on key findings.

# RESULTS

- Recruitment

Recruitment

Retention

# RESULTS

- Recruitment
  - Exposure
  - Building and Maintaining Relationships
  - Mentorship
  - Financial Resources

# RESULTS

- Recruitment
  - Exposure
    - “When I was in a post-bac program, I saw a picture and it stuck out with me and it has resonated with me my entire career in healthcare profession. It was a picture of a doctor sitting at his computer and we were suspecting he was a radiologist and he was reading x-rays from his farm, and many people don't think that if you go into a rural community, you're the big fish in a small sea...”
    - “... I think that sometimes kids in particular from rural areas don't really know what's out there and so I think exposure begins to open some doors and that's kind of like what you were talking about is making sure that kids know what the opportunities might be.”

# RESULTS

- Recruitment
  - Exposure
    - “....getting our students, I think exposure early on to primary care and to rural physicians”
    - “we bring the eleventh graders in”
    - “...we have a high school camp which is one week in the summer for 25 high school kids, rural high school kids. They come in. We bring them to campus. They do all kinds of things on campus.”



# RESULTS

- Recruitment
  - Exposure



- “I am sure by the fourth, fifth grade, you know, a child will have started to show some sign of what he is capable of doing or capable of being in. However, you know, it's one out of ten. Get him and put him over here and call [name] and let him work with him, you know.”
- “They are in school. We could go find some kind of mechanism to get to the principal or the super star student or the Board of Education down to the superintendent, down to the principals, on to the counselors to get this. I mean you have got a captured audience right there . You know they are all right there every day from 8:00 to what, 3:00.”

# RESULTS

- Recruitment
  - Building and Maintaining Relationships
    - “It’s the relationships. It’s the connections. It’s the connections to the community.”
    - “Well, I was just going to say, on a community level we often find our local providers or local hospitals are often a great resource, whether it is providing their own CNA training to get some of their own high school kids into the health careers. It’s a summer job but it also can help with the admission out in the health careers. It would be nursing or medicine that they’ve had health care experience.”

# RESULTS

- Recruitment

- Building and Maintaining Relationships

- “I’ll just add one thing to the exposure and that is, significant exposure. We have this thing about too little exposure actually immunizes somebody against the real thing. If a student, for example, goes to rural place for a couple weeks then sees the doctors on call every other night or whatever and they lock in on that and that’s what they think rural practice is, they’re like, no, I’m never going to go there. It’s rather repeated exposure and sustained exposure and enough exposure and we just don’t know how much is enough.”
    - “I tried my best to get on their level to say hey, we need you. We need you here. There are opportunities for you...to be gotten. There are opportunities for you to have. I want you to have these opportunities.”



# RESULTS

- Recruitment
  - Building and Maintaining Relationships
    - “That some of the tier two or three schools in the state in terms of educational prowess, had never had a representative contact them. You realize how many biology, and chemistry graduates do you have and nobody has ever been here. Nobody in the 20 years I have been here. Then you scratch your head. Wow, talk about missed opportunities. Who is talking to that premed advisor?”

# RESULTS

- Recruitment
  - Mentorship
    - “It’s the relationships. It’s the providing resource or guidance, mentorship to get through the hurdles of what do you do with an MCAT that the institution considers marginal that our admissions thinks is great.”



# RESULTS

- Recruitment
  - Building and Maintaining Relationships
    - “I'll speak personally on my experiences. Like I said earlier, I was kind of recruited by a guy that I looked up to in high school and I played football with here, and my grades in high school were pretty good. When I got to college, they slumped off some. I had to adjust, and eventually I stopped playing football and my grades improved when I started working with [name]. Doctor Wheat . So, I think something big for me was having a role model and someone to introduce me to the right people and a support system because when my grades weren't that great, I was going to my premed advisors and things like that and some of them were suggesting that I should change my major. So I found more like-minded people and people that actually believed in me and cared about my dreams and my GPA went from 2.9 to 3.6”

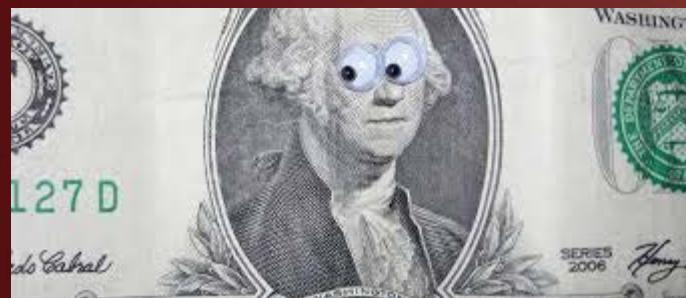
# RESULTS



- Recruitment
  - Financial Resources
    - "...a lot of minority students get scholarships to some of the historically black colleges and universities, and so their decision-making process is not necessarily around which school is going to get me to the health profession that I'm trying to get into, to the medical school that I want to get in or Allied Health or whatever. It's where can I go where I can be reasonably sure that if I stay there for four years, there's money to pay for it. But then that creates some disadvantages, as well, into like getting into some of these programs. But the point that I'm trying to make is that these students are driven more by the financial side of things than they are really trying to get to where they want to be professionally, and so I think money becomes huge in talking to students in rural areas and underrepresented populations about entering healthcare professions."

# RESULTS

- Recruitment
  - Financial Resources
    - “We need money.”
    - “I’m currently applying for graduated assistantships, all over campus trying to get somewhere where I don’t have to work 10 hours shifts.”



# RESULTS

- Retention
  - Flexibility
  - MCAT
  - Relationships
  - Peer support
  - Financial support
  - Cultural relevance

# RESULTS

- Retention
  - Flexibility

- “This young lady I was speaking of, Hispanic lady, she's going a non-traditional path. Although she's brilliant, she's making great grades, she had a family situation come up and so she was going to drop out, and I was going oh no, on no, you can't do that. Are you sure?...so I'm happy to say that the school adjusted and she was able to find a path to stay in school and she took two years to get though her second year and that worked.”



# RESULTS

- Retention
  - Flexibility
    - “A lot of minorities do have a non-traditional path. They have a family and financial obligations and a lot of the obligations that sort of derail them.”
    - “They demand that they complete the medical program in a six year timeframe or else they’ll be expelled. I’ve seen people get stuck working in medical school and it’s in that sixth year and the school tells them ‘That’s it, withdraw because you didn’t meet the standards that require you to finish within the six years’.”



# RESULTS

- Retention
  - MCAT
    - “When we work with students who are from poverty backgrounds in [state] when I was at [state], we had to teach them how to take tests, because their little one hour finals and stuff totally did not prepare them for the MCAT.”
    - “We have tried four or five different types of things. We have had a formal MCAT prep course where you get three hours of credit. We have done unofficial stuff. We have tried everything that we can think of and none of it seems to make a whole lot of difference. So what we need is some type of communication among medical schools about what are successful models that we can adopt. We just honestly don’t know what to do.”



# RESULTS

- Retention
  - MCAT
    - “We do a premed summit, which is a daylong thing where the admission dean comes in and members of our admissions committee and just have a hundred students. We sort of prep them on what it takes to have a good application. The next year we have an MCAT prep course day where we have all the sort of ideas of how to succeed on the MCAT prep. I think one of the more valuable parts of that is we bring in a panel of students that have succeeded in on the MCAT. They just talk about what has worked for them. I think the take home, obviously, is that it is very individual. I mean some people do well with Kaplan. Others do well with Exam Krackers or COD. So it’s good to hear, for these students to hear...”

# RESULTS

- Retention
  - MCAT
    - “I am struggling with the MCAT and as far as preparation for it. In our program, there is not any preparation for it other than you taking your prerequisites for the classes that possibly, I mean that are supposed to help you on the MCAT. Maybe some MCAT training or maybe getting some students together who learn that, have the same learning style who shares some similarities in what it is they need to work on in order to get that the support that they need. So as of right now, I am just on my own and using books because I can't afford Kaplan or the expensive stuff. So I am teaching myself. I am having to learn these things alone.”

# RESULTS

- Retention
  - Relationships

- “I think other physicians who are actively out there in practice, when they pair up and have relationships with students that are in programs, I think that can become a very positive thing. They can support them, share experiences, root them along, and hold them accountable.”
- “The advising doesn’t just have to be with that pre-health advisor. As directors of different programs, making sure that you all are up to date on what the students need as they grow from one point to the next. The academic support as far as the medical school, at [college], you had to seek those services.”

# RESULTS

- Retention
  - Relationships
    - "...it's not just giving them money, with the money comes a mentorship. I'm going to be your mentor, I'm going to be your local nurse that when you're in nursing school you can come back here on your break and spend time with us here in the school or as a physician you can come back to our community and stay in that community."



# RESULTS

- Retention
  - Relationships
    - "...a lot of church support..."
    - "My mom's side would call everybody on her phone tree. I got a whole bunch of Facebook messages and text messages from people at church back home that was like 'congratulations, you're doing great' and they would just say very encouraging things, especially my peer group. I told them what it would take and usually having that, knowing what I need to have and telling them what I need to have, they are able to support me."
    - "I would say church. I mean this is the south. Everyone goes to church I mean especially in the south. I was in church all week. So, we were there. So what I did over the summer included my church, because I was always there. I think especially in rural areas, most people go to one church. That's all that's there."



# RESULTS

- Retention
  - Peer support
    - “I think as a group in a cohort, I came in with ten people. I mean, granted we were ten very different personalities, but we found comfort in that and we have an assignment due, we complain together, we study together, we have fun together. It's just like you have someone to talk it out. You've got to work things out. That's like the best part of a program is having someone with you to identify with.”



# RESULTS

- Retention
  - Peer support
    - “One of the other keys to our success is [program name] relationships and so students are in the post-bac program and then they know somebody and then they know somebody. So those [program name] relationships are much more important to at least this generation, I think, than their relationships with me or some other old person.”
    - “They’re bonded by the time they leave just three or four weeks later.”



# RESULTS

- Retention
  - Peer support
    - "...probably the strongest support group that our students have in retaining is just their peers. It's real clear that they are a real pack. We have got some really strong students and some really weak students, and in between. They are a team. It's really clear from the very first week they all meet together that they are a team. If somebody is failing, the rest of the group doesn't let them fail. They are all over the top of them. They are working with them. If somebody fails you better believe that they are working with them just regularly."

# RESULTS

- Retention
  - Financial support
    - "...I don't feel that being able to allow them to take more loans out is really support."
    - "It's another variation of 'how do we provide additional support instead' so they don't regret being in a program."



# RESULTS

- Retention
  - Financial support
    - “And then even I've had some students like where I went to medical school, they passed down their books. You didn't necessarily have to buy those same books every year if you had someone who is passing them down and then eventually they created a library where there was this resource of books where you could go in there and you could check out the books if you needed to for a certain time period but the resources were there. That goes back again to finances. If I can't afford to pay somebody to watch my child or if I can't afford the books, I'm not going to be as successful because I don't have the finances to adequately do it.”
    - “Something as simple as a book could be a game changer for some people, wow.”

# RESULTS

- Retention
  - Financial support
    - "...In medical school, we are ten times the cost of a graduate school in some cases for tuition. If you don't make it, your debt, if you don't make it, the debt you incur to not become a physician high wage earner to pay off is incredible. So two years of med school and you have \$100,000 debt. Then how are you going to pay that off?"
    - "So, we are better to help them get through school and be successful than to drop them, but it takes a lot of effort."

# RESULTS

- Retention
  - Financial support
    - "...the financial counseling they were getting was counter to reality and undercut the truth of the matter, and that is that all physicians who graduated from medical school are likely to be in the top one percent of the population and their debt load is going to be much less than that farmer who's out there tending fields of corn."

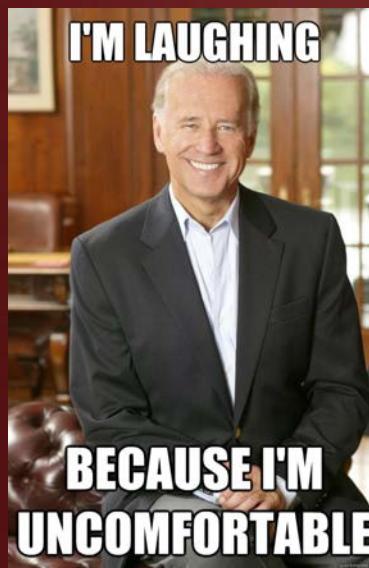
# RESULTS

- Retention
  - Cultural relevance
    - "...when I was in medical school there is an unspoken person. I mean they're not an official go to person, but there was an unspoken person just because the student that are minorities, nontraditional, underserved, they felt more comfortable speaking with that person when it was [name] or whomever. It's just because that person tended to be an advocate for students in general.
    - But, I think in general there is a – somebody and like you said, that needs to be an official somebody, which will make things a lot better."
    - "A title doesn't not make one an effective connection."



# RESULTS

- Retention
  - Cultural relevance
    - “And that's where it gets to be why it's so critical that we have adequate faculty of culturally diverse backgrounds so I can feel comfortable and you talk about the comfort in your [name of program] and I can be as open and accessible to people as they want but if they are uncomfortable with me- in fact- I'm comfortable with them, doesn't mean that they're really comfortable with me...”



# RECOMMENDATIONS

- Recruitment
  - Develop and maintain relationships with prospective rural minority medical students beginning as early as possible
  - Compile a list and exploit all opportunities to fund students for rural medical education

# CONCLUSIONS

- Retention
  - Acknowledge and work around nuances of the non-traditional students in your programs
  - Understand that the MCAT can be a major hurdle for these students, so pool all possible resources to ensure success on the exam
  - Professional, peer, and community relationships enhance active status in rural medical education programs
  - Ensure that program staff are culturally competent and prepared to work with this unique subset of students

## REFERENCES

- 1. Murray, Christopher JL, et al. "Eight Americas: investigating mortality disparities across races, counties, and race-counties in the United States." *PLoS medicine* 3.9 (2006): e260.
- 2. Wheat, John R., et al. "Physicians for rural America: the role of institutional commitment within academic medical centers." *The Journal of Rural Health* 21.3 (2005): 221-227.
- 3. Wheat, John R., et al. "Medical education to improve rural population health: a chain of evidence from Alabama." *The Journal of Rural Health* 31.4 (2015): 354-364.