

## Nurturing the Student, Sustaining the Mission: International/Inner City/Rural Preceptorship (I<sup>2</sup>CRP) Program

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# VCU

## School of Medicine

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## Disclosures

A detailed version of this presentation is currently being reviewed as a manuscript for the journal of *Family Medicine*

## Audience Participation

Do you know of any educational tracks to promote family medicine in medical schools?

A) Yes

B) No

C) Such things exist? That's amazing!

## Audience Participation

Do you have (or had) these educational tracks in your program/training?

- A) Yes
- B) No

## OBJECTIVES

1. Describe the VCU School of Medicine International/ Inner-city/Rural Preceptorship (I<sup>2</sup>CRP) Program, and outline its key curricular elements, including Self Determination Theory
2. Understand the impact of the I<sup>2</sup>CRP Program on its participants' choice to enter primary care specialties
3. Discuss factors of the I<sup>2</sup>CRP curriculum which might be replicated to encourage medical students to choose family medicine

## Introduction

- By 2030, the U.S. could see *shortage of 43,000 primary care physicians* <sup>2</sup>
- If barriers to utilize healthcare services were removed for underserved populations, *96,000 physicians would be needed to fill in the gap* <sup>2</sup>
- There are many educational tracks in medical schools nationwide to address this gap <sup>4, 6, 7</sup>

## Audience Participation

What do you think are necessary components in medical student tracks to engage student interest in primary care?

## VCU SOM I<sup>2</sup>CRP Program

- International/Inner City/Rural Preceptorship Program
- Began in 1998, as ICRP, increased program size with international component added with graduating Class of 2012
- Mission: to increase the number of students going into primary care to serve in medically underserved communities in rural, urban and/or international settings



## I<sup>2</sup>CRP Curriculum

- Application-based, accepted Fall of M1
- Longitudinal

Pre-Clinical	Clinical
<ul style="list-style-type: none"><li>• Grand Rounds</li><li>• Journal Club</li><li>• Practice of Clinical Medicine in an underserved setting</li><li>• Required electives during M1 and M2</li></ul>	<ul style="list-style-type: none"><li>• Clerkship rotations in underserved settings</li><li>• Balint groups</li><li>• M4 Community Immersion rotation</li><li>• M4 scholarly project</li></ul>

## Self Determination Theory (SDT)

- Macro-theory of human motivation, development, and health
- Developed through empirical research in 1970's by Edward L. Deci and Richard M. Ryan
- Applied in multiple domains, including education, developmental psychology, organizational psychology, and healthcare <sup>1</sup>

## Self Determination Theory

- Throughout their lifespan, individuals demonstrate an inherent curiosity and drive to seek new information and skills
- Authentic motivation is manifest as enhanced performance, persistence, creativity, and well-being <sup>1,5</sup>
- Factors in the learning environment support or diminish motivation
- Autonomy, competence, and relatedness are universal psychological needs <sup>1,5</sup>

# Self Determination Theory

Autonomy -- choice, volition, perceived locus of control

Competence -- mastery of desired skills or the perceived ability to bring about desired outcomes in one's environment

Relatedness -- meaningful interpersonal connection

## I<sup>2</sup>CRP and Self Determination Theory

### Autonomy

- Students apply to the program during the first year of medical school
- Students also choose track of interest -- urban, rural, and/or international
- Students refine choices to match evolving career interests

### Competence

- Engagement in hand-selected clinical teaching environments in underserved community settings
- Clinical teaching is highly personalized
- Preceptors are invested in care for underserved populations AND in clinical teaching

### Relatedness

- I<sup>2</sup>CRP structured as 4-year longitudinal program with continuous group membership M1 - M4
- Students report strong sense of group identity with shared values and goals
- Faculty and mentor presence with shared values and goals

# Self Determination Theory

Empirical research has generated specific strategies to foster a needs-supportive learning environment: <sup>1,5</sup>

- Provide a rationale for the activity or requirement
- Provide meaningful choice
- Listen to the individual to understand their view
- Acknowledge the individual's feelings, including negative feelings
- Facilitate exploration of interests
- Provide constructive, formative feedback
- Support and facilitate upward communication
- Provide unconditional positive regard

## I<sup>2</sup>CRP Program - our assessment

- # of I<sup>2</sup>CRP graduates entering primary care specialties <sup>3</sup> (2000-2017)
  - Family Medicine
  - Internal Medicine
  - Pediatrics
  - Medicine/Pediatrics
- I<sup>2</sup>CRP graduates currently practicing in health professional shortage area (HPSAs) or medically underserved area (MUAs)

## Methods

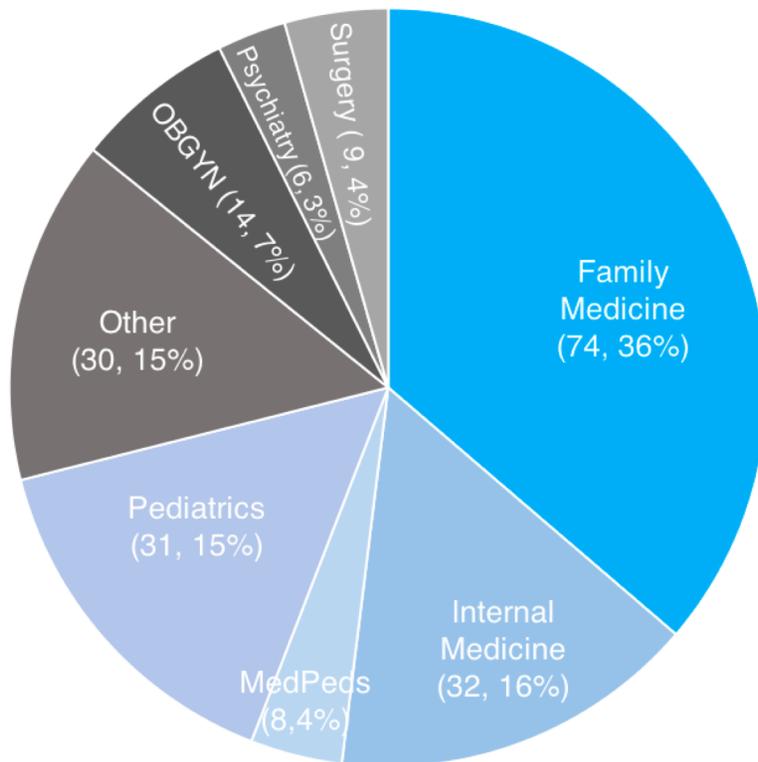
- Match list comparison of I<sup>2</sup>CRP graduates and non-I<sup>2</sup>CRP VCU SOM graduates
- Publicly available data was used to confirm current location of each I<sup>2</sup>CRP graduate, then searched in federal database to determine practice characteristics

## Outcomes

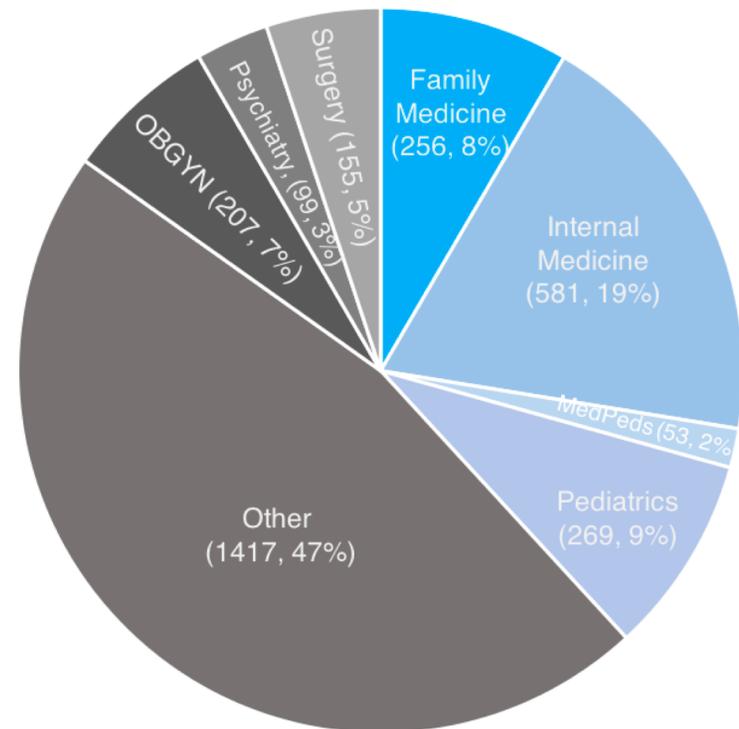
- Total # of I<sup>2</sup>CRP Graduates (2000-2017)
  - 204 graduates
  - 82 from 2000 - 2011; 122 from 2012-2017
- Total # of non- I<sup>2</sup>CRP Graduates (2000 - 2017)
  - 3037

## Outcomes

### I2CRP Match Results (2000 - 2017)



### Non-I2CRP Match Results (2000 - 2017)



## Outcomes continued

- Post-graduate training physicians in underserved areas (as of 12/2016)
  - 90 residents, 9 fellows, 9 inactive physicians excluded
  - 96 post-training practicing physicians

Type of Practice	# of physicians practicing in this area	% of physicians practicing in this area
Rural	17	18%
HPSA/MUA	39	41%

## Conclusion

- I<sup>2</sup>CRP graduates are more likely to enter family medicine and primary care specialties compared to non-I<sup>2</sup>CRP peers of VCU SOM
- More than 40% of program graduates work in underserved areas (HPSA/MUAs) and 18% in rural areas - showing program's longevity and impact in future career decisions
- SDT framework of autonomy, relatedness and competence nurtures student interests

## Future considerations

- Limitations
  - Comparison with national data
  - Selection bias
  - Unconfirmed data
  - Snapshot of physicians' location, does not account for mobility
- Qualitative studies with further evaluation with SDT either in focus groups, interviews
- Importance of early medical education training to nurture students' early interests, especially in family medicine and working with underserved communities

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## References

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## Questions?

Contact us!

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