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Nurturing the Student, Sustaining the Mission: International/Inner City/Rural Preceptorship (I2CRP) Program

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Nurturing the Student, Sustaining the Mission: International/Inner City/Rural Preceptorship (I²CRP) Program



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Introduction

- By 2030, the U.S. could see shortage of 43,000 primary care physicians¹
- If barriers to utilize healthcare services were removed for underserved populations and all Americans had services equivalent to non-Hispanic, white, insured populations in metropolitan areas, 96,800 physicians will be needed to fill in the gap¹
- There are many educational tracks in medical schools nationwide in hope to address these problems



VCU SOM I²CRP Program

- International/Inner City/Rural Preceptorship Program
- Began in 1998, began as ICRP, 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
- Students are selected after application review at the beginning of M1 year
- Longitudinal program with required seminars, written reflections,
 Grand Rounds and fourth-year capstone project
- Matches students with clinical rotations in medically underserved communities



Purpose of this project:

- To assess I²CRP's impact by analyzing the number of I²CRP graduates entering primary care² compared to non-I²CRP VCU SOM graduates from 2000 2017
 - Family Medicine
 - Internal Medicine
 - Pediatrics
 - Medicine/Pediatrics

 To assess the number of I²CRP graduates currently practicing in health professional shortage area (HPSAs) or medically underserved area (MUAs)



Methods

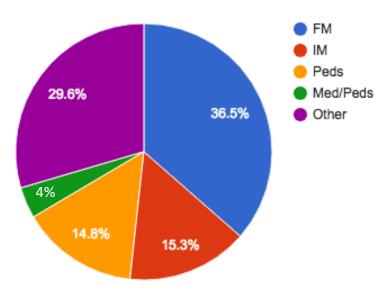
- Publically available data were used to confirm current location and specialty of each I²CRP graduate
 - 2000 2017: total of 203 I²CRP graduates
- Match data of 2000 2017 graduates obtained through SoM Office of Student Affairs to compare with all SoM graduates
 - 2000 2017: total of 3241 graduates



Results

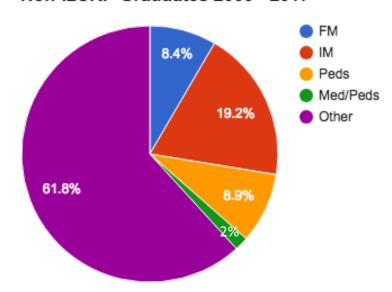
FIGURE 1. Comparison of Graduates in Various Specialties





| 2000 - 2017 | # Grads Matched | Total # Graduates | % |
|-------------|--------------------|----------------------|-------|
| FM | 74 | 203 | 36.5% |
| IM | 31 | 203 | 15.3% |
| Peds | 30 | 203 | 14.8% |
| Med/Peds | 8 | 203 | 4.0% |
| Other | 60 | 203 | 29.6% |

Non-I2CRP Graduates 2000 - 2017



| 2000 - 2017 | # Grads Matched | Total # Graduates | % |
|-------------|--------------------|----------------------|-------|
| FM | 256 | 3038 | 8.4% |
| IM | 582 | 3038 | 19.2% |
| Peds | 270 | 3038 | 8.9% |
| Med/Peds | 53 | 3038 | 1.7% |
| Other | 1877 | 3038 | 61.8% |

FIGURE 2. Comparison of Graduates Matched to Primary Care & NHSC Priority Residencies

| Filliary Care & NIISC FITORITY Residencies | | | | | | |
|--|-----------|----------|---------------------------------|-----------|----------|-------|
| I2CRP Graduates 2000 - 2017 | | | Non-I2CRP Graduates 2000 - 2017 | | | |
| | # | Total # | | # | Total # | |
| | Graduates | Students | % | Graduates | Students | % |
| Primary Care | 146 | 203 | 71.9% | 1161 | 3016 | 38.5% |
| NHSC Priority* | 166 | 203 | 81.8% | 1464 | 3016 | 48.5% |
| Non-PC NHSC Priority** | 20 | 203 | 9.9% | 303 | 3016 | 10.0% |
| General Surgery | 14 | 203 | 6.9% | 96 | 3016 | 3.2% |
| o enterm o an gery | | | | | | 9, |
| I2CRP Graduates 2000 - 2011 | | | Non-I2CRP Graduates 2000 - 2011 | | | |
| Primary Care | 66 | 82 | 80.5% | 807 | 1998 | 40.4% |
| NHSC Priority* | 72 | 82 | 87.8% | 988 | 1998 | 49.4% |
| Non-PC NHSC | | | | | | |
| Priority** | 6 | 82 | 7.3% | 181 | 1998 | 9.1% |
| General Surgery | 1 | 82 | 1.2% | 100 | 1998 | 5.0% |
| I2CRP Graduates 2012 - 2017 | | | Non-I2CRP Graduates 2012 - 2017 | | | |
| Primary Care | 80 | 121 | 66.1% | 352 | 1040 | 33.8% |
| NHSC Priority* | 94 | 121 | 77.7% | 477 | 1040 | 45.9% |
| Non-PC NHSC Priority** | 14 | 121 | 11.6% | 125 | 1040 | 12.0% |
| General Surgery | 8 | 121 | 6.6% | 55 | 1040 | 5.3% |

*NHSC Priority Disciplines: Primary care + ObGYN and Psychiatry

**Non-PC NHSC Priority: ObGYN and Psychiatry



FIGURE 3. # Practicing I²CRP Graduates in Primary HPSA or MUAs

| | # Practicing Graduates | Total # Practicing Graduates | % | | |
|------------------------------|---------------------------|------------------------------------|-------|--|--|
| MUA, HPSA or MUA and HPSA | 37 | 104 | 35.6% | | |



Discussion

- I²CRP graduates are more likely to enter family medicine and primary care specialties as compared to non-I2CRP peers of VCU SoM from 2000 2017.
- I²CRP graduates match into NHSC-priority specialties at rates higher than non-I²CRP VCU SoM peers from 2000-2017.
- With the introduction of the international component and the increase in the cohort size of the I²CRP program in 2012, number of I²CRP graduates entering family medicine and primary care specialties decreased. However the number of students matching to NSHC Priority specialties remained high.
- 36% of I²CRP graduates who have completed residency training currently practice in HPSA, MUA or both HPSA/MUAs, showing the longevity of the program's impact.



Discussion

- To address workforce shortages, this study shows the importance of early medical education training to nurture students to pursue primary care as well as other NHSC priority specialties.
- The study also shows the potential of medical education programs to impact each graduate's choice to practice in settings designated as HPSAs and MUAs.
- Limitations and future directions
 - Difficulty of comparing VCU SoM's data with national data due to differences in each programs (underserved tracks UCLA/Drew, rural tracks Jefferson PSAP and Michigan State University's RPP ^{3,4,5})
 - Is the program supporting decisions for students to enter primary care fields or are they self selected?
 - Snapshot of specialty choice does not account for mobility throughout the longterm span of each physician's career



Acknowledgements

Dr. Steve Crossman, Judy Gary, Dr. Chris Woleben

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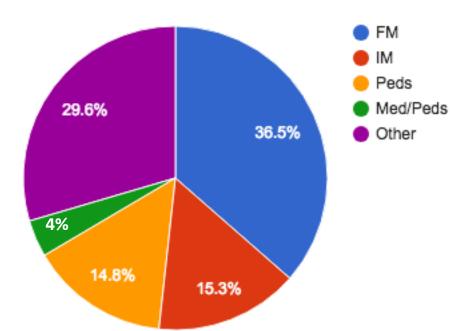




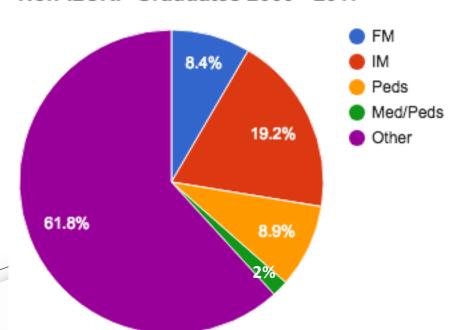




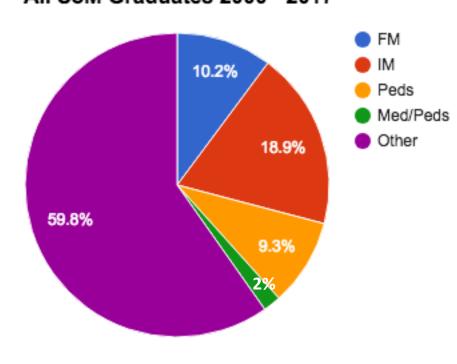
I2CRP Graduates 2000 - 2017



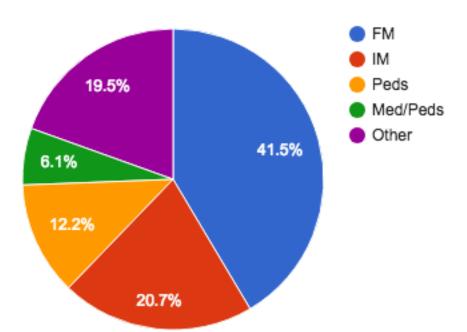
Non-I2CRP Graduates 2000 - 2017



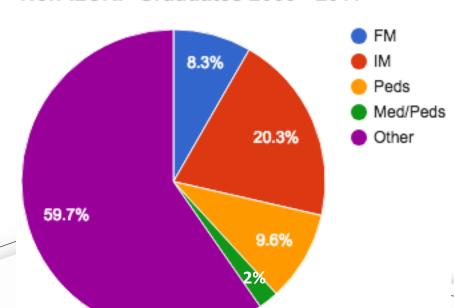
All SoM Graduates 2000 - 2017



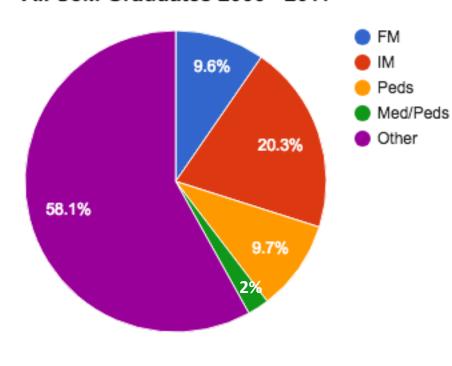
I2CRP Graduates 2000 - 2011



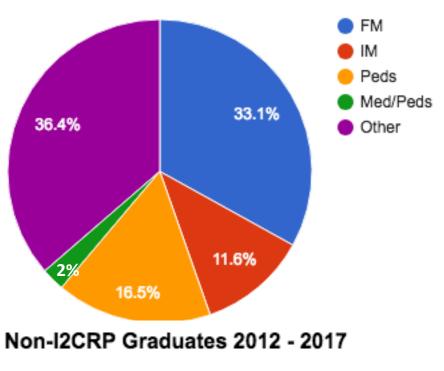
Non-I2CRP Graduates 2000 - 2011

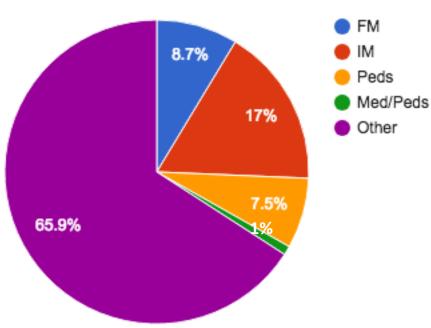


All SoM Graduates 2000 - 2011

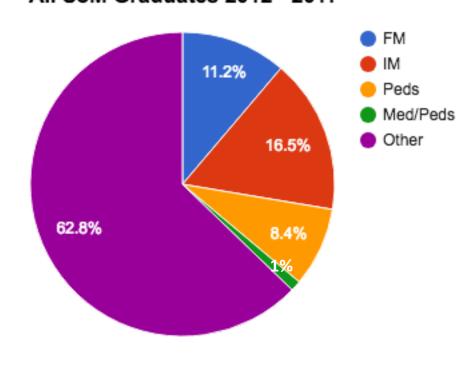


I2CRP Graduates 2012 - 2017





All SoM Graduates 2012 - 2017



Practicing I2CRP Graduates in Primary HPSA, MUAs

| | # Practicing Graduates | Total # Practicing Graduates | % |
|--------------------|---------------------------|------------------------------------|-------|
| MUA | 24 | 104 | 23.1% |
| HPSA | 32 | 104 | 30.8% |
| Both MUA + HPSA | 19 | 104 | 18.3% |
| MUA, HPSA | | | |
| or MUA&HPSA | 37 | 104 | 35.6% |

