



# Future Practice of Medical Students at the Northern Ontario School of Medicine – Part 2: Intended Practice Location

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Research Team

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# What is the NOSM TS?

- A study on the effects of northern/rural medical education on medical students and graduates
- A multi-year, multi-method (survey and interview) longitudinal study
- The study is approved by the Research Ethics Boards at both Laurentian and Lakehead Universities
- CRaNHR is an independent research centre with no affiliation with NOSM



# Operational Definitions



- Northern Ontario = LHIN 13 & 14
- Small Community = a community with a population of 10 000 or less
- Inclination = response on a 5 point Likert scale to a given geographic location or community size

	Strongly inclined to <b>AVOID</b>	Moderately inclined to <b>AVOID</b>	Neutral	Moderately inclined to <b>SELECT</b>	Strongly inclined to <b>SELECT</b>
Ontario – Northeastern	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

# Northern Ontario Inclination


N=120

	Entry		Exit
Northern Ont. Exclusive	28%	14	16%
Northern Ont. & Other	67%	5	74%
Elsewhere	5%		10%

*Note: Red arrows in the original image point from 14 to 74% and from 5 to 10%.*

- This change is significant (Bhapkar chi-squared  $p < 0.01$ )
  - Suggests that there are more students changing:
    - a) From Northern Ont. exclusive to Northern Ont. & other (22) vs. the opposite direction (8)
    - b) From Northern Ont. & other to Elsewhere (9) vs. the opposite direction (4)

# Demographics in relation to Northern Ontario Inclination


N=109	Pearson Chi Squared		
	Entry	Exit	
<b>Gender</b>	p=0.78	p=0.04	p=0.16
<b>Language</b>	p=0.44	p=0.13	p=0.12
<b>Marital Status</b>	p=0.70	p=0.15	p=0.49

- *Gender*

	Male	Female
<b>Northern Ont. Exclusive</b>	15%	85%
<b>Northern Ont. &amp; Other</b>	41%	59%

- Pearson Chi Squared = 4.434, p=0.04

# Demographics in relation to Northern Ontario Inclination

N=109	t-test		ANOVA
	Entry	Exit	
Age at Exit	p=0.39	p=0.02	p=0.10
Northern Background	p=0.01	p=0.54	p=0.06
Rural Background	p=0.72	p=0.14	p=0.13

- Age at Exit Background

	Stayed	Mean	Changed to	S.D.	Stayed
Northern Ont. Exclusive	Exclusively	N.Ont Exclusive	N.Ont. & Other	N.Ont. & Other	N.Ont. & Other
Mean Age	33.0	33.5	30.6	3.5	30.0
Northern Ont. & Other		33.6		6.4	

: t-test = 2.484, p=0.01

# Small Community Inclination (pop < 10 000)



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N=120

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	Entry	Exit
<b>Small Community</b>	60%	43%
<b>Larger Community</b>	40%	57%

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- This change is significant (McNemar  $p < 0.001$ )
  - 30 individuals who were inclined to practice in a small community at Entry were no longer inclined to practice in such a location at Exit vs. 9 who moved in the opposite direction.

# Demographics in relation to Small Community Inclination

N=120	Pearson Chi Squared		
	Entry	Exit	
Gender	p=0.77	p=0.70	p=0.84
Language	p=0.05	p=0.01	p=0.05
Marital Status	p=0.11	p=0.001	p=0.01




- Marital Status

	Stayed Small	Changed to Small	Changed to Larger	Stayed Larger
Small Community	63%	37%		
Large Community	62%	67%	50%	28%

- Pearson Chi Squared = 10.5718, p=0.001



# Demographics in relation to Small Community Inclination

N=120	t-test		ANOVA
	Entry	Exit	
Age at Exit	p=0.01	p=0.002	p=0.05
Northern Background	p=0.51	p=0.22	p=0.32
Rural Background	p=0.07	p<0.001	p=0.001

- Age at Exit Background

	Stayed	Mean	Changed to	S.D.	Stayed
Small Community	Small	30.16	Larger	8.1	Larger
Large Community	30.0	30.98	31.50	6.0	28.39

: t-test = 3.210, p=0.002  
 : t-test = 4.132, p<0.001

# Conclusion

120  
Survey respondents

**109**  
Northern Ontario

**11**  
Elsewhere

Small Community  
Married, older  
**47**  
75% English  
Small Community

Larger Community  
Single, younger  
**62**  
50:50 Language  
Larger Community

**40**  
Family Medicine  
specialty

**7**  
Royal College  
specialties

**28**  
Family Medicine  
specialty

**34**  
Royal College  
specialties

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# Thank-you

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# Demographics in relation to Elsewhere Inclination n=11



- Gender = more likely to be female
- Language = no difference
- Marital Status = more likely to be single
  
- Age = no difference
- Northern Background = lived slightly fewer years in Northern Ontario
- Rural Background = spent slightly more years in rural area