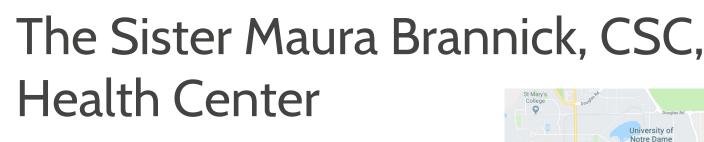


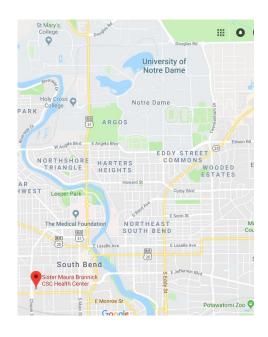
An Analysis of Barriers of Transportation Among Low-Income Patients of the Sister Maura Brannick, CSC, Health Center

Erin McCune
University of Notre Dame Class of 2018



- Clinic for uninsured of St. Joseph County
  - Individuals below 150% of the poverty line
- Services
  - Primary and specialty care
- Volunteer since sophomore year





- Jan-June 2017
  - o 21.5% missed appointments
  - 6.1% missed three or more concern

# Introduction to the Study

- No-show appointments
  - Poor continuity of care
  - Poor utilization of medical resources
  - Lost opportunities to treat patients

#### Causes

- Community context
- Most commonly cited barriers:
  - health insurance coverage, high costs of services, communication issues with patients and providers, legal status/discrimination and transportation

#### Methods

- Survey entire patient population
   Came into clinic: written survey

  - No appointments in June-Aug: phone survey

423 active patients, 26 NSC
 (No Show Concern = 3 or more missed appointments in past 6 months)
 185 written surveys completed; 12 declined
 317 patients were called called; 226 no answer

- 11 NSC responses total
- 44% general participation; 42% NSC participation

# Survey Instrument Underst

 Developed under advisement from English and Spanish speakers at the clinic

#### Understanding Challenges with Getting to and from Appointments

All responses will be kept completely anonymous. By taking part in this survey, I indicate my voluntary consent.

1.	How do you normally get to and from your appointments at the clinic? Please circle one below.						
	Bus	Car	Bike	Walking			
	Other (	please specify):		_			
2.	Do you encounter any problems with getting to and from your appointments? (Mark all that apply.)						
	□ I don	't have a car					
	□ The c	linic is too far a	iway				
	☐ My d	river is unrelial	ole				
	☐ The b	ous takes too lo	ng				
	□ The b	ous costs too m	uch				
	□ The b	ous route does	not take me to	the clinic			
	□ The b	ous route does	ot pick me up	close enough to	home		
	☐ The bus route does not pick me up close enough to home ☐ It is hard for me to walk/take the bus because of physical limitations						
3.	Besides potent the way of you		ion problems, a	Such as changi			
	Besides potent the way of you work schedule Do you ever fe	tial transportat making your a , lack of childca	ion problems, a ppointments? ire, limited clin	(Such as changi ic hours, etc.)		lictable	
4.	Besides potent the way of you work schedule Do you ever fe If yes, why?	ial transportat making your a , lack of childca el nervous/sca 's gave you a v 5, 1 being very	ion problems, ppointments? re, limited clin red to come int	(Such as changi ic hours, etc.)  o the clinic?	Yes to your appo	lictable N sintmen	
4.	Besides potent the way of you work schedule Do you ever fe If yes, why?	ial transportat making your a , lack of childca el nervous/sca 's gave you a v 5, 1 being very	ion problems, ppointments? re, limited clin red to come int	(Such as changi ic hours, etc.)  o the clinic?	Yes to your appo	lictable N sintmen	
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## Data Analysis

- Two Groups Compared
  - General patient population
    - 0-2 missed appointments in the past 6 months
  - NSC Group
    - 3 or more missed appointments in the past 6 months

# Findings

- Most commonly cited problems
  - Transportation
  - Childcare
  - Nervousness
  - Restrictive/Unpredictable work hours



**Table 1: Patients Citing Transportation Problems** 

	General Patient Population	NSC group
Number citing transportation problems	54	5
Total population	186 responses	11 responses
Percentage citing transportation problems	29%	45%

**Table 2: Patients Citing Non-Transportation Problems** 

Reason	Work Hours		Physical Limitations	Nervous
Responses	16	13	7	18
NSC	1	1	1	1

Table 3: Percentage of NSC Patients Citing Problems

	Work hours	Childcare	Physical Limitations	Nervous	Bus problems	Unreliable driver
% of NSC						
problem	9%	9%	9%	9%	18%	36%

## Question 5: Bus Voucher

Table 6: Bus Voucher Responses

Table 6: Bus Voucner Responses				
Question 5 Response	0-2 Missed	3+ missed (NSC)		
1 (highly unlikely to use)	45	2		
2	15	2		
3	13	0		
4	16	0		
5 (highly likely to use)	67	3		
Total Responders	156	7		

Table 7: Responses Among NSC Group

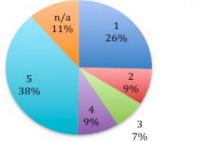
- Bus Voucher

1 2 3

■ 4 ■ 5 ■ n/a

Question 5 Response	NSC %
1 (highly unlikely to use)	18%
2	18% 0%
4	0%
5 (highly likely to use)	36%
N/A	28%

Chart 1: Question 5 (Bus Voucher)



### Question 6: Van Service

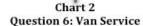
Table 8: Van Service Responses

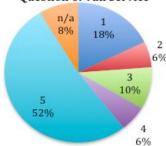
Question 6 Response	0-2 Missed	3+ Missed (NSC)
1 (highly unlikely to use service)	33	0
2	11	0
3	17	1
4	10	1
5 (highly likely to use service)	88	7
Total Responses	159	9

Table 9: Responses Among NSC Group

– Van Service

vali service		
Question Response	% NSC	
1	0%	
2	0%	
3	9%	
4	9%	
5	63%	
N/A	18%	











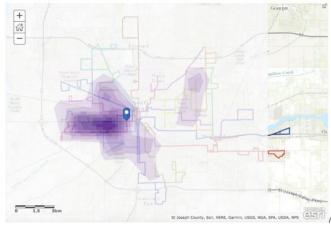




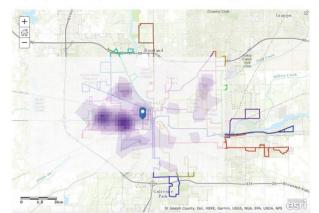


# Data Maps

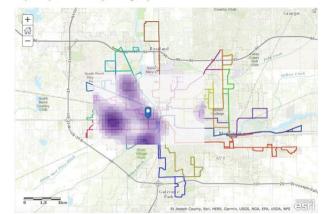
Map 1: Population Density - Entire Patient Population



Map 2: Population Density - Patients with one or more missed appointments

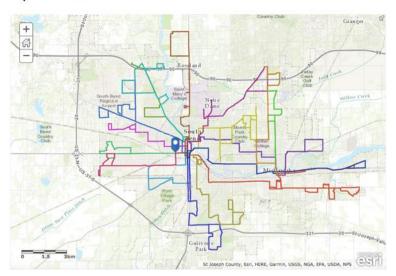


Map 3: Population Density - NSC group

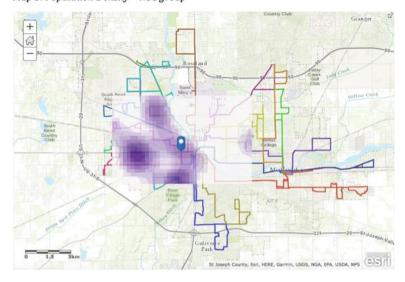


# Data Maps

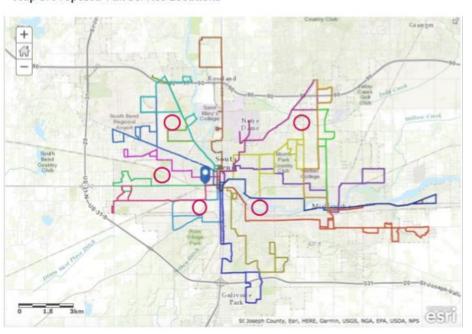
Map 4: Bus Routes



Map 3: Population Density - NSC group



Map 5: Proposed Van Service Locations



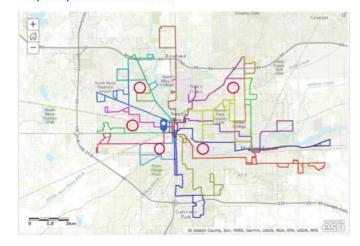
#### Conclusion

- Many patients face obstacles with getting to and from appointments
  - General patient population: ½ cite transportation problems
  - NSC group: nearly ½ cite transportation problems
  - Most common: unreliable driver
- Opportunity to make a difference
- First step is identifying problems



- Van service system
  - o Focus on areas circled in map
    - High density of patients and NSC patients especially
    - Limited bus options
- Trial program

Map 5: Proposed Van Service Locations



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 The Undergraduate Research Opportunity Program (UROP) with the Institute for Scholarship in the Liberal Arts (ISLA)

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