



TRANSPORTATION
AND COMMUNITY
MOBILITY FOR
INDIVIDUALS WITH
DEVELOPMENTAL
DISABILITIES



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"If you don't have access to transportation, you don't have access to a whole lot of things. You don't have the opportunities to do very much. You become very limited" (Hammel et al., 2009).



Transportation as a Barrier

- The National Council on Disabilities (2013) reported that the lack of “accessible transportation represents one of the chief barriers to participating in economic and community life”
- Transportation serves as a primary barrier in accessing important services in the community, including health care and employment for many individuals with intellectual and developmental disabilities (Kim, Norton, & Stearns, 2009).
- Dependence on others to meet transportation needs
 - *72% of individuals with a disability missed at least some of their desired activities due to lack of available transportation (Feeley, Deka, Lubin, & McGackin, 2015)*
 - *70% of parents and caregivers missed at least some of their activities due to the responsibility of transporting their adult child (Feeley et al., 2015)*

Community Mobility

- For many individuals with developmental disabilities, transportation serves as a primary barrier in accessing important services and overall community inclusion (Kim, Norton, & Stearns, 2009).
- There is often a reliance on DRT such as paratransit services (Feeley, et al., 2015) to access community activities.
 - *This can be a more costly and inconvenient option as the scheduling and time commitments required increase significantly.*
 - *Fixed route public transit is a more affordable and flexible transportation option, although its use is often limited by lack of training and experience.*
 - ***WE SPECIFICALLY TARGET THOSE INDIVIDUALS THAT HAVE CONDITIONAL ELIGIBILITY IN MOST OF OUR WORK***

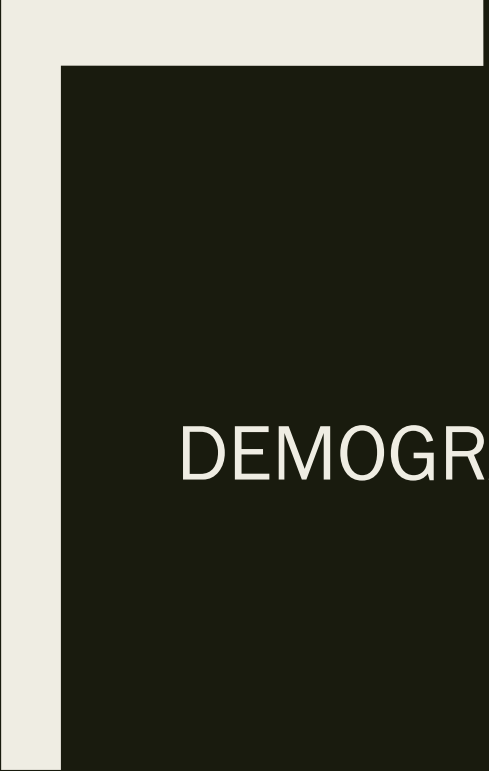
Community Mobility Survey

- Purpose
 - *To understand the types of supports and services needed to improve access to public transportation and reduce barriers for individuals with developmental disabilities*
 - *The study explored:*
 - Types of transportation used
 - Barriers to transportation
 - Impact of transportation on community participation and employment for individuals with developmental disabilities

Community Mobility Survey

- Methodology
 - *Cross-sectional descriptive design utilizing survey research*
 - *214 individuals with disabilities (age 18+) or their proxies completed an online Qualtrics survey to acquire information about basic demographics, transportation schedules, transportation use, self-determination, participation, caregiver assistance, financial means and other pertinent questions regarding their transportation use.*
 - *Survey data was analyzed through Excel using descriptive statistics including mean, frequencies*

	Total Sample	Self Reported ASD	Caregiver Reported
N	214	152	62
Gender			
Female	78 (36.4%)	53 (34.9%)	25 (40.3%)
Male	125 (58.4%)	88 (57.9%)	37 (59.7%)
Other		11 (7.2%)	
Race/Ethnicity n/(%)			
Asian/Pacific	5 (2.3%)	3 (2.0%)	2 (3.2%)
Black/African American	29 (13.6%)	21 (13.8%)	8 (12.9%)
Hispanic/ Latino	20 (9.3%)	13 (8.6%)	7 (11.3%)
Mixed	2 (.9%)	2 (1.3%)	
Native American/ American Indian	7 (3.3%)	6 (3.9%)	1 (1.6%)
Other (Please Specify)	2 (.9%)	2 (1.3%)	
White/Caucasian	149 (69.6%)	105 (69.1%)	44 (71.0%)
Age			
Mean (SD)		26.82(8.67)	

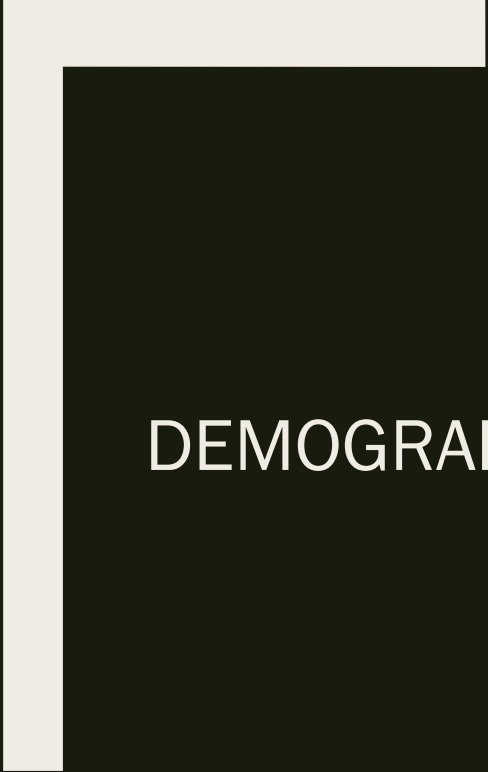


DEMOGRAPHICS

Relationship to person answering survey	Total Sample	Self Reported ASD	Caregiver Reported
Educator	1 (.5%)		1 (1.6%)
Legal Guardian	5 (2.3%)		5 (8.1%)
Parent	44 (20.6%)		44 (71.0%)
Spouse/Partner	12 (5.6%)		12 (19.4%)
Education Level			
Associates Degree	12 (5.6%)	9 (5.9%)	3 (4.8%)
Bachelor's Degree	17 (7.9%)	16 (10.5%)	1 (1.6%)
Doctoral Degree	1 (.5%)	1 (.7%)	4 (6.5%)
Grammar School	15 (7.0%)	11 (7.2%)	
High School or Equivalent	85 (39.7%)	56 (36.8%)	29 (46.8%)
Master's Degree	11 (5.1%)	10 (6.6%)	1 (1.6%)
Some College	40 (18.7%)	31 (20.4%)	9 (14.5%)
Vocational/Technical School	33 (15.4%)	18 (11.8%)	15 (24.2%)

DEMOGRAPHICS

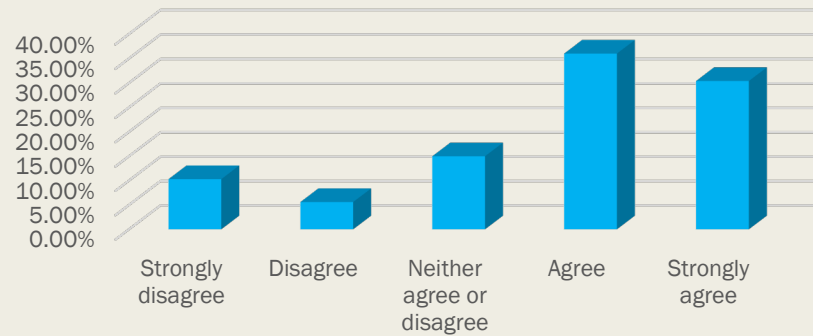
Primary Diagnosis	Total Sample
Autism Spectrum Disorder	122
Mental Emotional Health Disorders	35
Physical Disability	31
Cerebral Palsy	10
Cerebrovascular Accident (CVA) /Traumatic Brain Injury (TBI)	19
Intellectual Disability (ID)	23
Down Syndrome	10
Other	15
Residential Area	
Rural	25 (11.7%)
Suburban	89 (41.6%)
Urban/City	100 (46.7%)
Regions (Based on US census)	
South	44 (37%)
North East	68 (24%)
Midwest	27 (24%)
West	44 (15%)



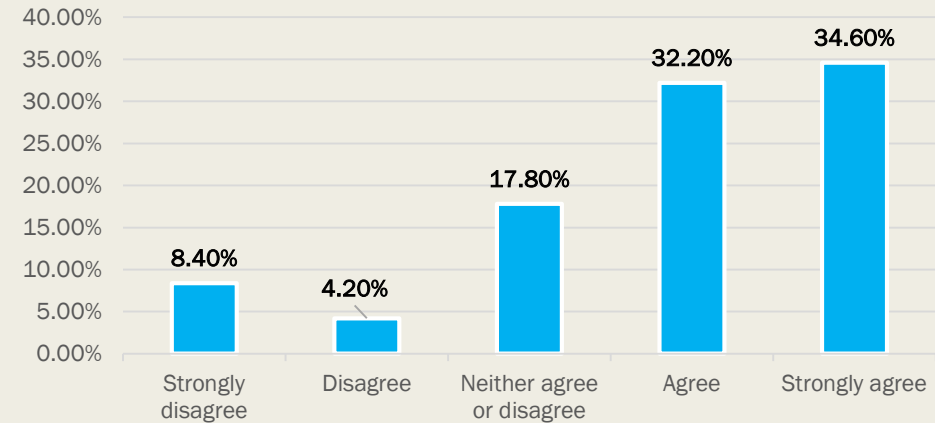
DEMOGRAPHICS

PARTICIPATION

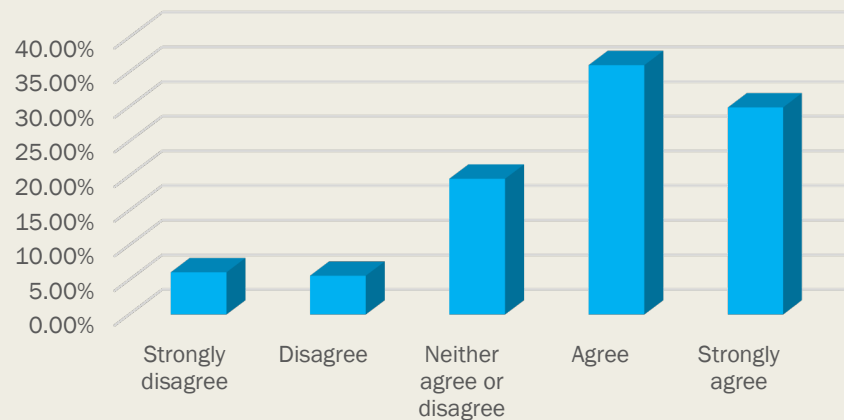
Lack of transportation limits my participation in activities in the community (social events, getting to appointments, work, school, shopping)



I would like to use public transport to increase my participation in activities in the community (social events, getting to appointments, work, school, shopping).



Using public transit could improve my quality of life

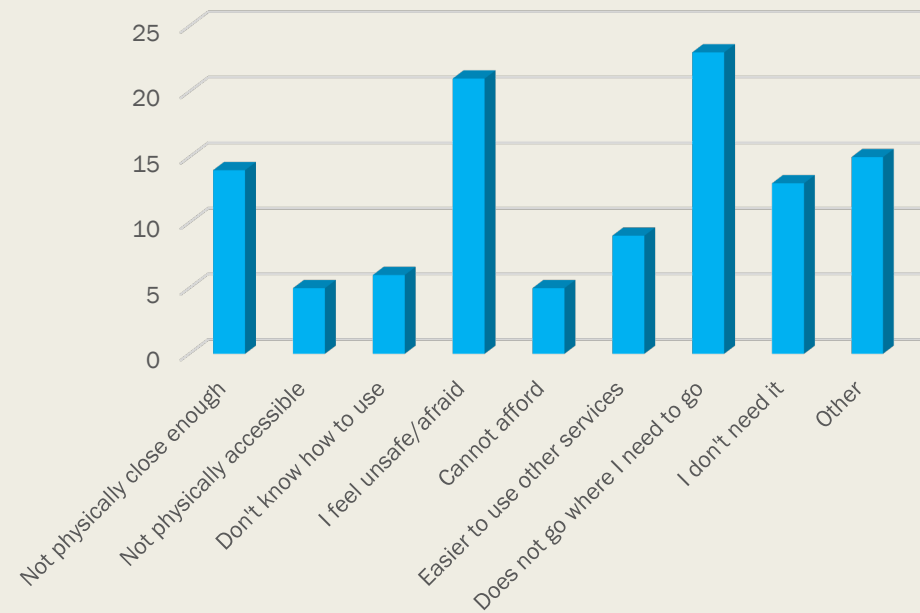


Do you use paratransit/CCT	
Yes	111 (51.9%)
No	103 (48.1%)
Do you use the public transportation (bus/train/trolley/boat/ferry) system?	
Yes	185 (86.4%)
No	29 (13.6%)

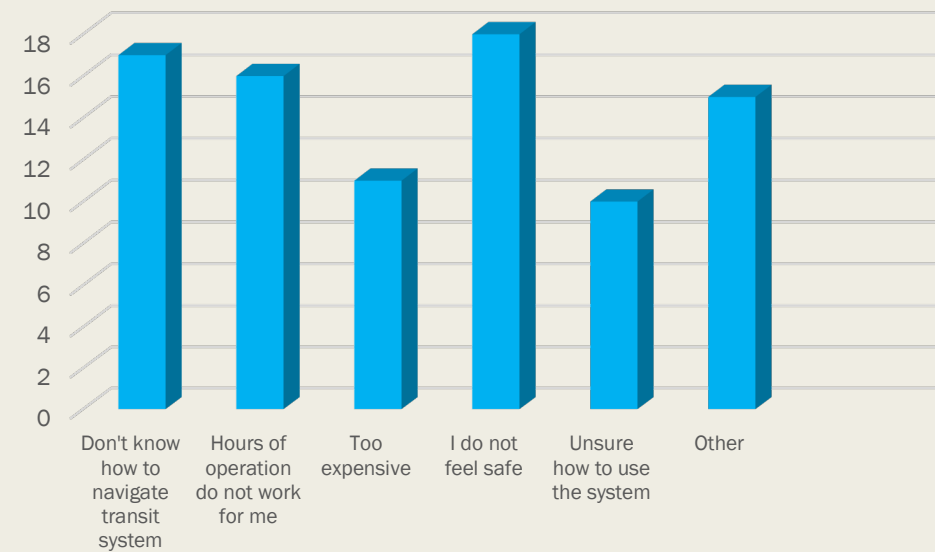
PARATRANSIT AND PUBLIC TRANSIT USE

BARRIERS TO THE USE OF PUBLIC TRANSIT

Why don't you use public transportation?

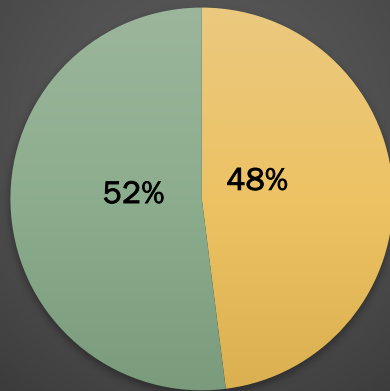


What keeps you from using public transportation?



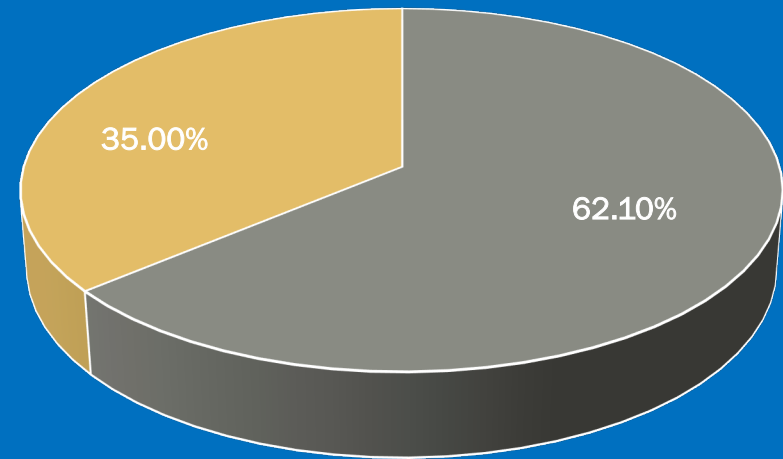
DESIRE FOR TRANSPORTATION TRAINING

Would you be interested in learning how to use public transit?



yes no

Would you be more likely to use public transportation if you had special training on how to use buses/trains/trolleys/boats?



yes no

TRANSPORTATION SURVEY

■ Limitations

- *Majority of respondents were had a diagnosis of Autism Spectrum Disorder*
- *Small sample size for survey research increases risk of error*
- *Data is still in the process of being collected*

TRANSPORTATION SURVEY

Conclusion

- *This study identified important considerations in understanding participation and use of public transportation for individuals with developmental disabilities*
- *A desire to use transportation and the benefit of having special training in accessing transportation was recognized*
- *Future studies investigating transportation barriers, community participation, and specialized transportation training are necessary to better serve this population and contribute to the lack of research in this area.*

*INITIAL EVALUATION OF A
PUBLIC TRANSPORTATION
TRAINING PROGRAM FOR
INDIVIDUALS WITH
INTELLECTUAL AND
DEVELOPMENTAL
DISABILITIES*

KENNEDY CENTER
AND TEMPLE
UNIVERSITY

Examine the impact of a comprehensive travel training program implemented by the Kennedy Center on the travel skills of individuals with IDD.

Data that included pre-test and post-test scores on the Progressive Evaluation of Travel Skills, as well as mode(s) of public transportation used, purpose of use, and number of training sessions.

Data was de-identified and a secondary analysis completed to test the effect of travel training on transportation skill acquisition by fitting a multilevel model to the data.

The effects of condition (Intellectual Disability (ID) without ASD, ID and ASD, ASD without ID), time (pre-training, post-training), and condition x time interactions on transportation skill T-scores were analyzed.

Results

- Most participants (94%) traveled primarily by bus with remaining (6%) traveling by train.
- The most common reason for using public transportation was to:
 - *travel to work (38%)*
 - *following by leisure (21%)*
 - *school (17%)*
 - *general purposes (17%).*
- On average, trainees participated in about 6 sessions, each lasting about 90 minutes for a total of nearly 10 training hours.
- Trainees made very substantial (> 2 standard deviation) gains on the competencies needed for independent travel.
- A significant condition x time (training) interaction was observed.
 - *Prior to training, people with ID (with and without ASD) had less developed travel skills than those with ASD (and no ID).*
 - *Those with ID made larger gains in travel skills than those ASD/no ID, such that upon completion of the training, both groups had comparable skill levels.*
- The results of this study provide preliminary support for the use of a structured and comprehensive travel training program to improve overall travel skills needed for public transportation. Further research is needed using experimental designs, larger sample sizes, and broader outcomes.



PEER SUPPORT TRAVEL TRAINING INTERVENTIONS

These projects are funded under grants from the National Institute on Disability, Independent Living, and Rehabilitation Research (NIDILRR grant number 90IFRE0013-01-00 and 90RT5021-02-01). NIDILRR is a Center within the Administration for Community Living (ACL), Department of Health and Human Services (HHS). The contents of this presentation do not necessarily represent the policy of NIDILRR, ACL, or HHS, and you should not assume endorsement by the Federal Government.



Core Component	Description and Goals
Interacting with Individuals in the Community	Learns how to access help in an emergency including: <ul style="list-style-type: none"> How to identify emergency workers/vehicles How to identify when a situation that requires emergency help How to contact an emergency number or 911 How to recite or provide personal contact information in an emergency
Signs and Traffic Symbols	Identifies common signs found in public transit stations
Pedestrian Safety and Awareness of Surroundings	Identifies safe behaviors when walking in the community, walking near streets and crossing the streets.
Preparing for Your Trip	Identifies different transit vehicles and signs/amenities found at transit stops and on vehicles. Identifies appropriate dress for specific outdoor weather and items appropriate to carry in community when travelling. Understands and identifies basic rules when travelling on public transportation.
Travel Practice	Use public transportation with close supervision including using following basic transit rules, identifying transit vehicle, and using transit etiquette.
Expect the Unexpected: Dealing with the “What ifs”	Identify different types of situations encountered during community travel and identify/implement strategies for problem-solving transit-related challenges.
Individualized Travel Training	Individualized 1-1 instruction requiring the real use of public transportation needed for the participant to access employment services. Participants receive instruction through the actual use of public transportation. The peer-interventionist first models basic skills and provides significant support in the planning process for travel, followed by the participant taking the lead with shadowing from the peer interventionist. Research staff are available for on-going consultation throughout the travel training process as needed.

Peer Support Transportation Training

- We have completed a pilot study (n=10) and now are initially data collection for a larger RCT (n=80) funded through a NIDILRR Field Initiated Grant with individuals with ASD.
- We also have a three arm RCT funded through the NIDILRR RRTC (TU Collaborative on Community Inclusion) that compares Peer Support Transportation Training for:
 - *Bike share*
 - *Public transportation*
 - *Transportation resources control group*

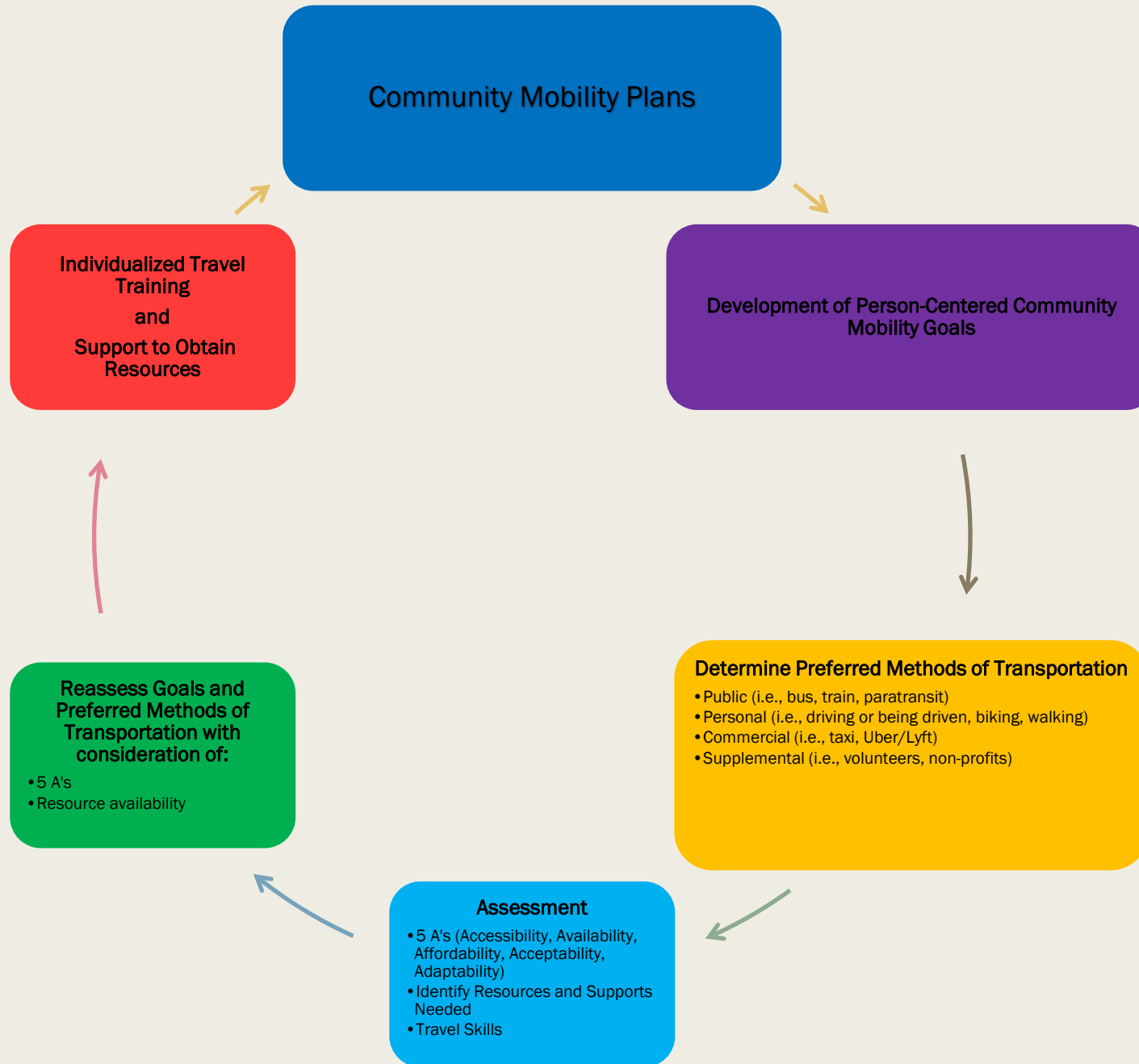




PARATRANSIT FEEDER PROGRAM



COMMUNITY MOBILITY PLANS



Case Example: John



- 22 year-old who has ASD Level 3.
- John identified his community mobility goals as:
 - *Being able to get to his doctors appointments*
 - *Being able to get to a theatre to watch his favorite movies*
- John has conditional paratransit eligibility.
 - *Able to used fixed route bus to get to work training program each day.*
 - *Uses paratransit to get to all other appointments and outings in the community.*
- Participated in peer mediated transportation training program.
- Met majority of his transportation goals.
 - *Able to use the bus to get to a local movie theatre.*
 - *Able to take the train and transfer to a bus to get to his primary care physician. Continues to use paratransit for other medical and dental appointments.*



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