



# TransLink HandyDART Service Performance Review 2020

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# A Message from the CEO of TransLink

**Since the start of the pandemic in 2020, HandyDART continued to be an essential service for people who are unable to navigate conventional public transit without assistance.**

COVID-19 upended our lives and changed the way TransLink provides its services. I'd like to thank customers and commend HandyDART employees for adapting with us to ensure the highest levels of safety. Even through the heights of the pandemic, thousands of customers relied on HandyDART service to get them to critical appointments. This is something we do not take for granted.

In March 2020, HandyDART trips dropped to 85% below pre-pandemic levels, with the service experiencing a gradual increase in ridership in the following months. We were able to continue providing service as a result of funding relief from the Federal and Provincial Governments, which helped avoid major service reductions due to financial pressures related to COVID-19.

## **Safety remains a top priority during COVID-19.**

In light of the safety challenges presented by the pandemic, TransLink, Coast Mountain Bus Company, and First Transit acted quickly to create a more comfortable environment for HandyDART customers by:

- Increasing physical distancing on HandyDART vehicles so the majority of trips carried no more than two people
- Daily disinfecting of high-touch surfaces on-board HandyDART vehicles
- Providing HandyDART drivers with personal protective equipment
- Installing roof vents on all HandyDART vehicles to improve air circulation

We have an important role to play in the communities we serve. HandyDART employees have a special connection with their customers – they know them by name and go the extra mile.

I'm pleased to see the insights within this report build upon 2019's inaugural HandyDART Service Performance Review. This work will help us continue providing a service that is transparent, data-driven, resilient, and continues to meet the needs of HandyDART customers now and in the future.

## **Kevin Quinn**

Chief Executive Officer, TransLink

# HandyDART in 2020 at a Glance

This report focuses on the performance of the HandyDART system, TransLink's custom transit service for when customers are unable to use the conventional transit system without assistance due to disability. The following provides a summary of the key findings from this report, which includes a review and analysis of performance metrics related to usage and delivery of HandyDART services including Supplemental Taxi.

While HandyDART provided full service during the first two and a half months of 2020 to meet higher than anticipated demand, service for the remainder of the year was largely shaped by the impact of COVID-19. The pandemic prompted a reorienting of services with the introduction of new practices to ensure the safety of customers and employees.



## COVID-19 SAFETY AND WELLNESS

- **Customer Pre-Screening and Mandatory Masks**
  - » In 2020, HandyDART customers were pre-screened for COVID-19 symptoms as part of the booking process and were required to wear a mask while travelling.
- **Enhanced Cleaning**
  - » High-touch surfaces – such as the yellow grab rails and seatbelts on HandyDART vehicles – were disinfected daily.
- **Driver Personal Protective Equipment**
  - » Personal Protective Equipment (PPE), including disposable masks and gloves, were provided to HandyDART drivers, as well as hand sanitizer and disinfectant wipes for cleaning.
- **Physical Distancing**
  - » HandyDART drivers spaced customers out on-board vehicles, and single-passenger trips were provided wherever possible.
- **Ventilation**
  - » Approximately 50 wind-powered roof vents were installed on vehicles. These vents improved air circulation between 33% and 100%, with results varying by test procedure.
- **Food Delivery Support**
  - » In total, 3,129 food deliveries were made in 2020, providing an essential resource to thousands of residents.
- **Wellness Calls**
  - » Over 9,000 calls were made in 2020, focusing on supporting customers who needed help accessing external resources, like community support networks, and gauging customer comfort levels on HandyDART.

## RIDERSHIP TRENDS & CHARACTERISTICS

- HandyDART demand was greater than anticipated in the first two months of 2020 with 104,000 and 114,000 trips, respectively. However, by mid-March, the impacts of COVID-19 were felt in Metro Vancouver, and demand dropped significantly. The subsequent months saw a gradual recovery in ridership, but the impacts of evolving public health orders continued to result in reduced demand. In total, 620,143 HandyDART trips were delivered in 2020, down 55% from 2019.
  - » 579,725 trips were delivered by HandyDART vehicles in 2020 – down 52% from 2019.
  - » 40,418 trips were delivered by Supplemental Taxi – down 78% from 2019.
- HandyDART vehicles provided 421,141 service hours, down 19% from 2019.
- Ambulatory customers (i.e., customers who do not use mobility devices) made up the largest share of customer trips served (69%).
- HandyDART vehicles served almost all (97%) customer trips that involved customers using wheelchairs.
- Customers aged 20-35 had the highest average trip rates (about 68 trips per customer), which trended lower for older age groups.
- Despite having lower trip rates per customer, the large number of customers in older age groups represented the greatest number of trips taken.
- Cost per trip (meaning the cost to TransLink to operate the service) in 2020 was \$75.14 compared with a cost per trip of \$39.26 in 2019. Despite having lower ridership, HandyDART maintained high levels of service because fewer people could be accommodated on board each trip due to physical distancing requirements. This resulted in higher costs per trip relative to 2019.

## REGISTERED CUSTOMERS

- New customer registrations dipped in 2020 to 4,792, from 2019's 8,891, with 3,517 of these new registrations being clients over the age of 65.

## ON-TIME PERFORMANCE

- Building on good on-time performance from years past, in 2020, a historic high of 94% of trips were reported as on-time (15 minutes before or after the scheduled time, or within the pick-up window ) or early. Decreased demand for HandyDART and reduced traffic on roads due to COVID-19 impacts to overall travel contributed to this improved on-time performance.

## SAFETY ON-BOARD

- Customer injury rates declined steadily between 2014 and 2019, with a slight increase to 1.3 injuries per 100,000 boardings in 2020 (9 injuries total).

## SYSTEM EFFICIENCY

- Less than 1% of HandyDART trips were intermodal with conventional transit service (connecting with bus, SkyTrain, SeaBus or West Coast Express).

## CALL CENTRE

- In 2020, customers calling the HandyDART line waited on initial hold an average of 1 minute 3 seconds. Once answered by an agent, calls lasted 2 minutes 45 seconds, on average.
- Customers abandoned about 1 in every 20 calls, usually in the first two minutes of waiting.

## CANCELLATIONS, DENIALS AND REFUSALS

- Cancellations initiated by customers accounted for over 9 out of 10 trip cancellations, with the rest being due to causes like inclement weather and statutory holidays. Many customers cancel trips for reasons such as rescheduling of appointments or programs, and customers are encouraged to cancel or reschedule if they are not feeling well.
- In 2020, there were 405 denials (0.05% of requests) and 1,258 refusals (0.14% of requests). The denial rate dropped from 0.11% in January and February to 0.02% in March, eventually reaching 0% by end of year, reflecting the decrease in demand due to COVID-19.

## OPERATIONAL INSIGHTS

- **Trip Length (distance)**
  - » Average trip length in 2020 was 12.5km, a 47% increase from 8.5km in 2019. This increase may be attributable to customers continuing to require the HandyDART service to complete longer trips, while finding alternative means for shorter trips during the pandemic.
- **Trip Purpose**
  - » Renal dialysis (25%), medical appointments (21%), and day programs (21%) made up the majority of trips in 2020.
- **Vehicles**
  - » The HandyDART fleet in 2020 comprised 349 vehicles, unchanged from 2019.



## CUSTOMER PERSPECTIVES

- Customer ratings for both HandyDART and for Supplemental Taxi were high on the following measures:
  - » Service overall
  - » On-time performance
  - » Ease of booking
- In particular, customer ratings for on-time performance increased significantly in 2020.
- Customer ratings for drivers' skills to assist passengers who have a physical disability were high for HandyDART; ratings for Supplemental Taxi drivers were lower.
- Customer ratings for HandyDART were high on the following measures:
  - » Feeling safe from injury on-board
  - » Cleanliness and good repair of vehicles
  - » Courteous, competent, and helpful
- HandyDART and Supplemental Taxi's combined rating of value for money was high (the measure does not separate HandyDART and Supplemental Taxi).
- For Supplemental Taxi, most customers said that drivers had provided door-to-door service and ensured their seatbelt was secure before departing.

# Introduction and Background

This report describes the performance of TransLink's HandyDART service in 2020. TransLink tracks performance to ensure it is meeting customer demand and expectations.

Past TransLink reports on HandyDART performance have included the following:

- **Transit Service Performance Review (TSPR)** – Through 2020, HandyDART service has also been included in the system-wide Transit Service Performance Review, an annual comprehensive summary report on ridership, cost, utilization, and reliability of TransLink's services.<sup>1</sup>
- **Accountability Centre** – Since 2017, information about HandyDART service has been available on TransLink's Accountability Centre. Transit performance tracking includes customer satisfaction and some HandyDART performance indicators.<sup>2</sup>
- **Customer Service Performance** – Annual survey of experience and satisfaction for HandyDART customers. The primary objectives of the research are to evaluate the quality of service provided by HandyDART (including Supplemental Taxi), determine the reasons for change in usage, and identify areas for improvement.<sup>3</sup>
- **Corporate Reports** – TransLink produces annual Statutory and Accountability reports, featuring HandyDART, that provide a summary of operations and highlight strategic, service, capital, and operational plan successes.<sup>4</sup>

As part of its commitment to delivering a world-class transit customer experience throughout

<sup>1</sup>[2020 Transit Service Performance Review](#)

<sup>2</sup>[Accountability Centre](#)

<sup>3</sup>[2020 HandyDART Customer Service Performance Report](#)

<sup>4</sup>[Corporate Reports](#)

the region, TransLink is committed to transparency and performance improvement. An annual program of performance reporting supports this with reporting for both conventional transit and, as of 2019, a more customized report for HandyDART, recognizing the unique nature of this service. Some features of HandyDART that don't apply to conventional transit include:

- Customers must be registered and eligible to use the HandyDART service.
- Customers must book and cancel trips in advance.
- Trips, including schedules and routes, are created in response to customer requests.
- Service is door-to-door.
- Drivers will accompany customers to and from the vehicle.

HandyDART is TransLink's brand name for custom transit. The service is provided when registered customers are unable to use conventional transit services without assistance for part or all of their travel requirements. Trips are delivered in different ways:

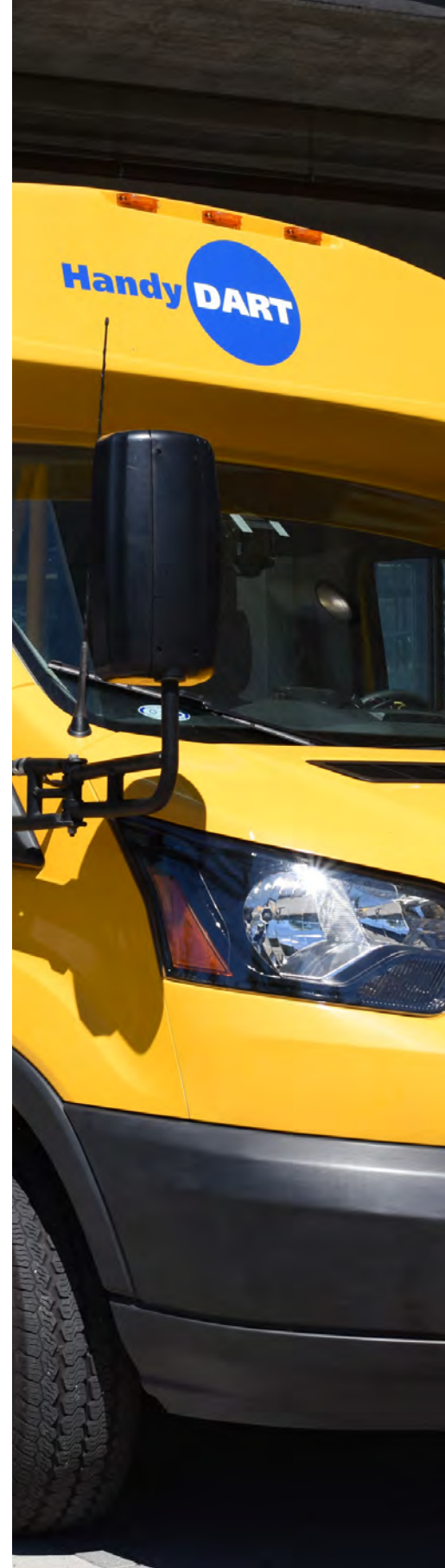
- **HandyDART vehicles** – trips provided with branded, accessible vehicles, operated for TransLink under contract. In this report, when we refer to HandyDART vehicles, we are referring only to trips delivered on HandyDART buses, and not Supplemental Taxis. When we refer to the HandyDART service, we are referring more generally to services delivered by both HandyDART vehicles and Supplemental Taxis.
- **Supplemental Taxis** – taxis sent to provide service when HandyDART vehicles are not available. Reasons may include periods of high demand or serving customers when HandyDART vehicles are delayed in traffic or other circumstances. Customers pay a regular HandyDART fare and TransLink pays the rest of the taxi fare.
- **Intermodal trips** – trips involving HandyDART and conventional transit.

## REPORT OBJECTIVES AND APPROACH

The objectives of this HandyDART Service Performance Review include:

- Meet annual reporting requirements for HandyDART performance, building on the foundational report in 2019.
- Identify and advance understanding of HandyDART performance trends (e.g., trips delivered, denials, refusals, on-time performance) using available data sources.
- Pinpoint performance challenges to inform future policy, planning or procedural changes to continue to improve the HandyDART experience for existing and future customers.

This review identifies metrics that provide insights about the effectiveness and efficiency of the service and the customer experience across the HandyDART service. This includes key trends in performance, highlighting areas of high performance that should be maintained and challenges that require attention.



## WHAT IS HANDYDART?

This section provides an overview of HandyDART and provides definitions that are helpful to understand some of the metrics later in the review.

HandyDART vehicles and Supplemental Taxis are equipped to service passengers with disabilities, including those using a wheelchair.

Here are some other features and services that relate to HandyDART and are not included in this review:

- **HandyCard** – an identification card that enables eligible customers to travel on conventional transit at concession fares with their required attendant who travels for free.
- **TaxiSaver** – a voucher program for HandyCard holders. Customers can purchase a limited number of taxi fare discount vouchers and use them for taxi trips they book themselves.
- **Conventional Transit** – the scheduled, fixed route bus, SkyTrain, SeaBus and West Coast Express service that makes up the rest of the transit system. Much of Metro Vancouver’s conventional transit system has accessibility features such as:
  - » Vehicles with low or level floors and boarding ramps and lifts for high-floor vehicles;
  - » SkyTrain stations with elevators and many bus stops with curb ramps and shelters; and
  - » Other features such as audible stop announcements and passenger information displays.

## ACCESS TRANSIT OVERVIEW

The Access Transit program was established to ensure that accessible transit is integrated into all of TransLink's plans, projects, and programs. The Access Transit team works closely with a [Users' Advisory Committee](#) and a [HandyDART Users' Advisory Committee](#) to implement and seek feedback on custom transit and conventional programs and services.

### THE ACCESS TRANSIT TEAM

The team that manages implementation of TransLink's accessibility programs, plans, policies, and services consists of:

- **Access Transit Planning** – manages the Access Transit strategy, policies and administers the advisory committees.
- **Access Transit Customer Care** – is the main point of contact for customer services such as HandyDART and HandyCard registration and administering the TaxiSaver program.
- **Access Transit Service Delivery** – administers the HandyDART service contract and monitors performance.
- **First Transit** – the service provider that books, schedules, and provides HandyDART trips.

The Access Transit team also works with the [Province of BC](#) and [BC Transit](#) to help coordinate accessible transportation services across the province.



# 2020 HandyDART Service Performance Review

To prepare this report, we reviewed existing data and operational reporting. We also analyzed reports from several existing systems including the scheduling system ('Trapeze') and the call management system used by First Transit, TransLink's annual survey of HandyDART customers, the TransLink accountability dashboard, and previous Transit Service Performance Reviews from the conventional transit system.

## TRANSLINK'S HANDYDART CUSTOMER SERVICE PERFORMANCE REPORT

Ipsos, a research firm, conducts an annual survey contacting "past-month users" (who used HandyDART vehicles or Supplemental Taxi at least once in the past month) to gather their opinions about:

- The quality of service provided.
- The reasons for changes in their usage.
- Areas for improvement.

Ipsos conducted 500 telephone interviews between October 6 and November 10, 2020 with customers aged 18 or older. Customers were first informed about the upcoming survey in a letter so that they would understand and feel comfortable participating in the survey. Overall, the results are statistically valid. Full details are available in the 2020 HandyDART Customer Service Performance Review.

For each question, results are reported in terms of the average score from 1 (least favourable) to 10 (most favourable), and in terms of the share of people answering the survey that gave scores of Good to Excellent (8 – 10).



## PRESENTATION OF ANALYSIS

The following sections present the analysis of HandyDART data. The Customer Experience section follows the journey of a customer taking a HandyDART trip, from booking and waiting for a ride, to paying a fare and taking the trip. Each sub-section presents data related to each segment of the trip.

The second section presents Operational Insights. These are operational elements that a customer may not be aware of in their day-to-day experience with the service but that are nevertheless important metrics when examining the overall performance of the service.





## REPORTING ON THE COVID-19 PANDEMIC

On March 18, 2020 the Provincial Government declared a state of emergency as a result of the global COVID-19 pandemic, an infectious disease caused by the SARS-CoV-2 virus<sup>5</sup>. Subsequent months witnessed evolving public health orders recommending staying at home, limiting travel, and physical distancing. These public health conditions and societal changes also changed travel patterns and behaviour, and overall travel demand, including for HandyDART. At times, public health orders were more open, allowing a recovery in ridership, and at other times, health orders were more restrictive, resulting in reduced ridership to mostly essential trips. In this sense, after the provincial state of emergency was declared, there was no ‘average’ day in 2020. As a result, 2020 reporting focuses on absolute metrics and only uses descriptive statistics, like averages, where appropriate. For example, instead of reporting average daily ridership for a given timeframe, the total number of HandyDART trips is reported. Nevertheless, the metrics in this report provide useful insights into HandyDART’s performance through 2020.

<sup>5</sup> [WHO Coronavirus disease \(COVID-19\)](#)

## COVID-19 SAFETY & WELLNESS

The COVID-19 pandemic directly impacted seniors and populations with unique needs – some of the same demographics that rely on HandyDART. Given the specific needs of the HandyDART customer base, the close assistance provided by HandyDART drivers to customers, and the proximity between customers on-board, additional safety protocols were enacted to enhance safety of customers and drivers. In addition, due to lower demand, in 2020 the HandyDART service had capacity to support local food deliveries for vulnerable populations. Access Transit Customer Care and HandyDART representatives also regularly called customers to check in on their personal wellness.

### ENHANCED CLEANING

First Transit, TransLink’s third-party HandyDART service operator, implemented enhanced cleaning protocols on-board vehicles in 2020. High-touch points – such as the yellow grab rails and seatbelts – were wiped down with disinfectant daily. HandyDART drivers were also provided spray bottles for supplemental cleaning between trips.

### PERSONAL PROTECTIVE EQUIPMENT

HandyDART also helped enhance COVID-19 safety by providing personal protective equipment (PPE) to all HandyDART drivers, including masks, gloves, face shields, and disposable coveralls, if requested. In addition, drivers maintained a supply of disposable masks to provide to any customer who did not have one.

## **PHYSICAL DISTANCING**

Physical distancing on-board HandyDART vehicles was an important aspect of maintaining COVID-19 safety in 2020. About 95% of the time during the pandemic, HandyDART vehicles carried two or fewer passengers at a specific time. During the pandemic in 2020, capacity targets for HandyDART vehicles were reduced to a maximum of three to four passengers, depending on vehicle size (midibus or microbus; noting these vehicles can have a maximum capacity of 12 and 8 passengers, respectively). Physical distancing on vehicles resulted in fewer trips being delivered using the same number of drivers and vehicles.

## **VENTILATION**

In 2020, approximately 50 wind-powered roof vents (Flettner Vents) were installed on vehicles, with the remaining vehicles (approximately 275) outfitted in 2021. Based on internal testing, the new vents improved air circulation between 33% and 100%, with results varying by test procedure.

## **CUSTOMER SATISFACTION FOR CLEANLINESS AND GOOD REPAIR**

This continued emphasis on cleanliness was reflected in the annual Customer Satisfaction Survey scores. In 2020, survey respondents gave an average score of 9.1 out of 10 for cleanliness and good repair of HandyDART vehicles.

## FOOD DELIVERY SUPPORT

The pandemic reduced HandyDART demand in 2020, presenting an opportunity for the service to support other community initiatives and recovery efforts. Through the City of Vancouver Emergency Food Task Force and word of mouth, TransLink connected with community organizations to aid in food delivery to vulnerable individuals. In total, 3,129 food deliveries were made in 2020, providing an essential resource to thousands of people.

## WELLNESS CALLS

To help support our customers through the challenges of the pandemic, call centre employees conducted wellness phone calls throughout 2020. At first, the wellness calls were focused on checking on customers' wellbeing and, when necessary, assisting customers who needed help accessing external resources, like community support networks. Later in the year, the calls shifted focus to ridership recovery by gauging customer comfort levels with travel on HandyDART. In total, over 9,000 calls were made in 2020. These efforts were well-received by customers and caregivers of those who found themselves dealing with isolation due to pandemic restrictions.

## RIDERSHIP IMPACTS

Building on the momentum of 2019, HandyDART demand continued to be greater than anticipated in the first two months of 2020 with 104,000 and 114,000 trips, respectively. However, by mid-March, the impacts of COVID-19 were felt in Metro Vancouver, and demand dropped significantly. In April, HandyDART delivered 20,000 trips, or approximately one-fifth of the trips delivered in April 2019. The subsequent months saw a gradual recovery in ridership, but the impacts of evolving public health orders continued to result in reduced demand. By year-end, HandyDART was delivering about 44% of trips compared to 2019.

To maintain physical distancing on-board HandyDART vehicles, seating capacity was limited, resulting in almost the same number of vehicles and drivers needed to deliver significantly reduced ridership. HandyDART continued to use approximately 75% of budgeted service hours through to the end of the year to ensure trips were delivered safely.

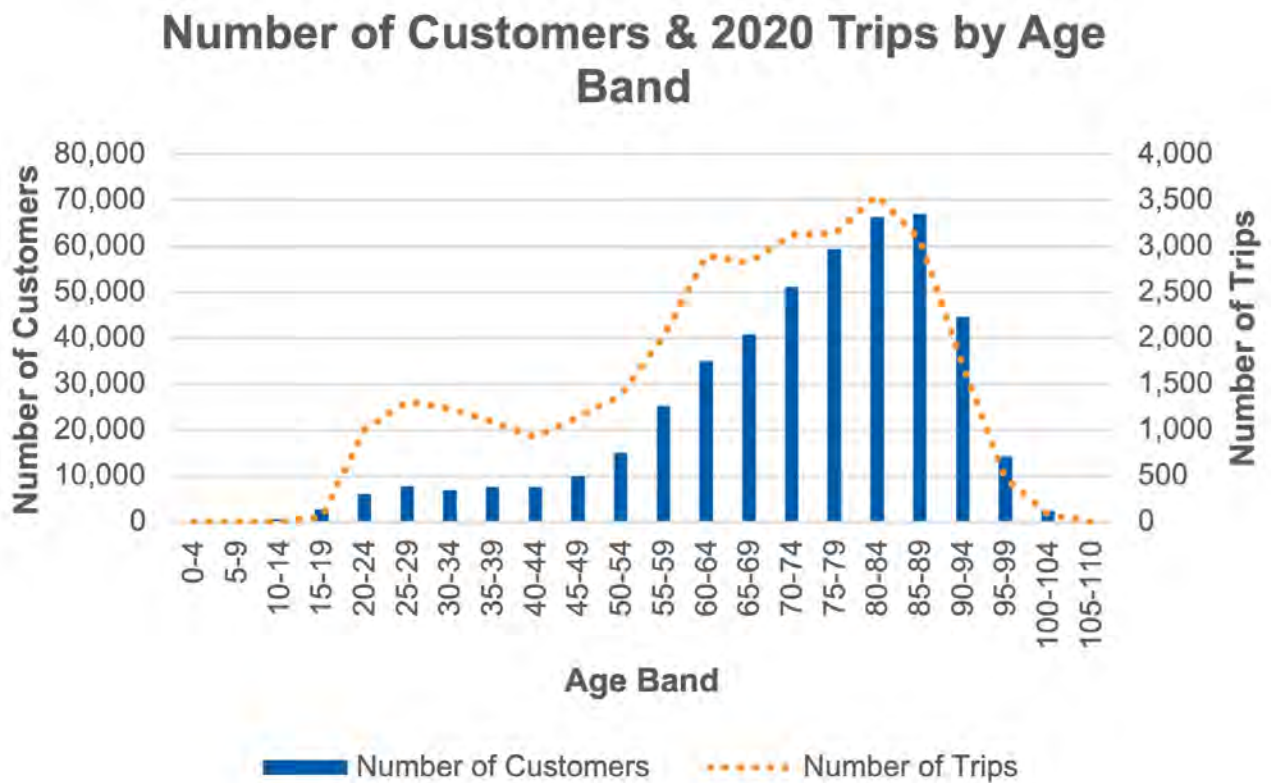


## THE CUSTOMER EXPERIENCE

In this section, metrics are assessed that focus on the customer experience for each segment of a HandyDART trip. This includes information on who HandyDART customers are, where trips start and end, the booking experience, trip purposes, and customer satisfaction.

### HANDYDART CUSTOMERS

Customers are eligible to use HandyDART services if they have a physical, sensory, or cognitive disability and cannot use conventional public transit without assistance for all or part of their trip. In 2020, the service was open to applicants 12 years of age or older.



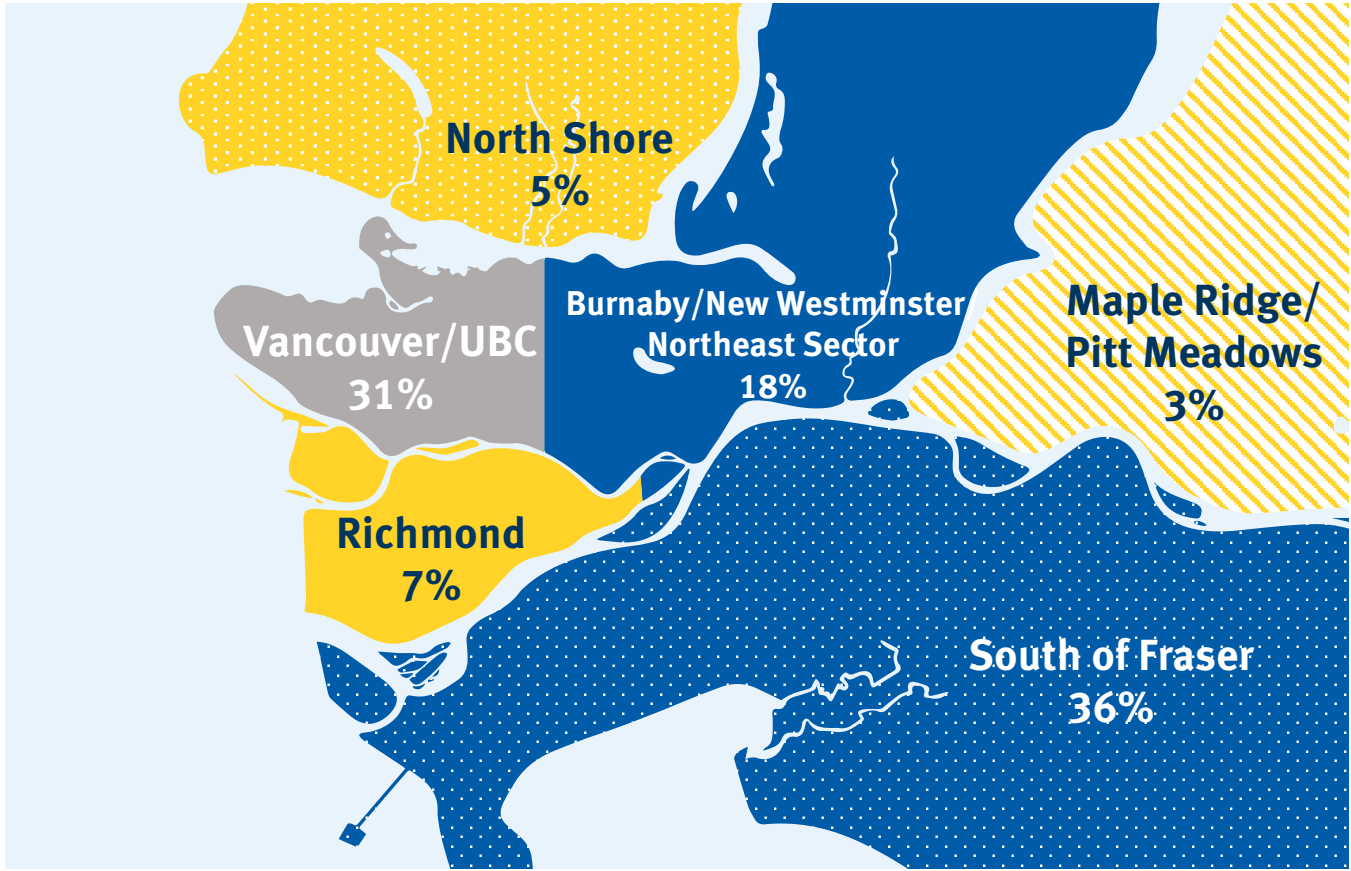
**Figure 1** – Customers and Trips by Age Band

### TRIP RATES BY CUSTOMER AGE

Most HandyDART customers are between the ages of 70 and 89, with 74% of HandyDART customers over 65. Customers over the age of 65 averaged 21 trips per person in 2020. Customers in the oldest age brackets (90-110) made between 10-15 trips in 2020.

Customers between 20 and 34 years of age made the most trips in 2020, with an average of 68 trips per person over the course of the year. More frequent trips to work and school for younger age brackets increases younger customers’ individual trip needs. Trip rates steadily declined for each age bracket after 30-34.





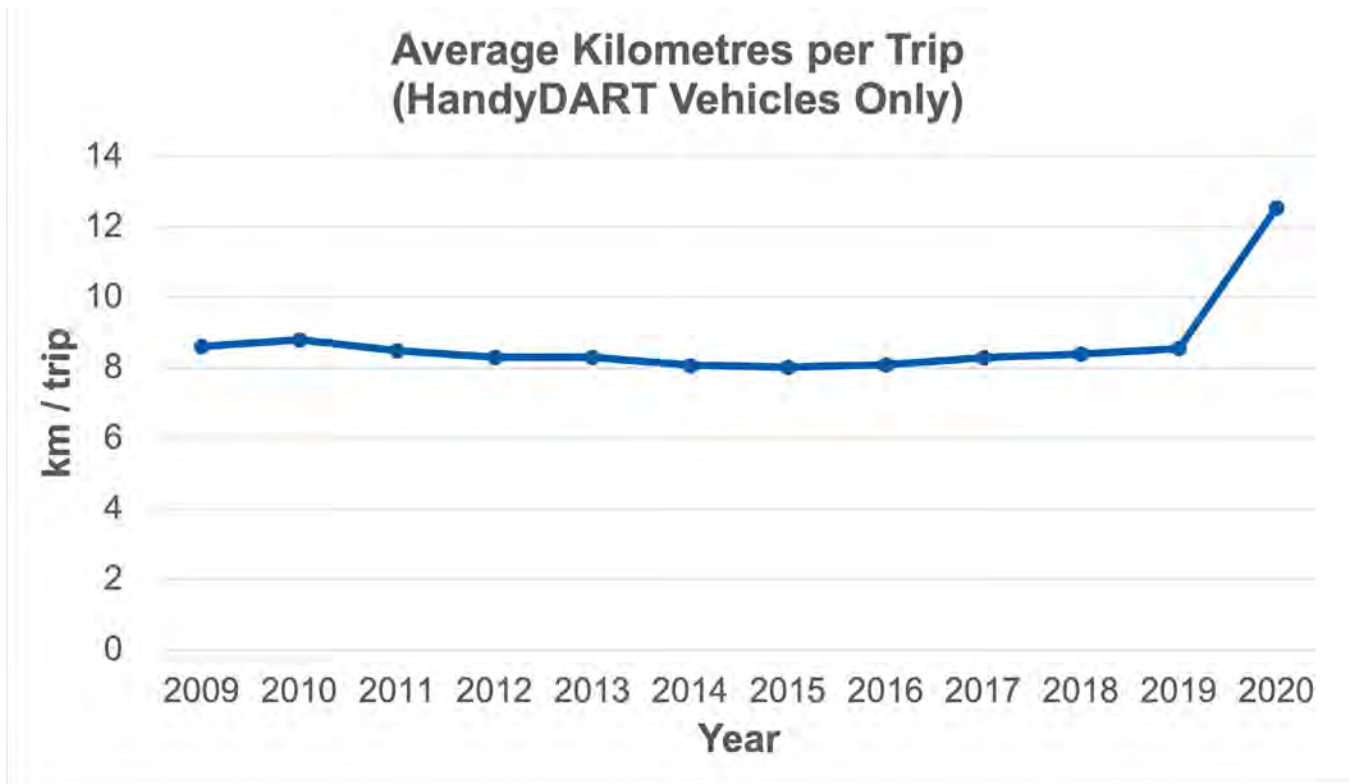
**Figure 2** – Distribution of HandyDART Trip Origins in 2020

## HANDYDART SERVICE AREA & SERVICE PATTERNS

HandyDART provides access for customers within the TransLink service area across Metro Vancouver. In 2020, the majority of trips started and ended in the South of Fraser sub-region. Figure 2 shows the percentages of trips that originated in each sub-region.







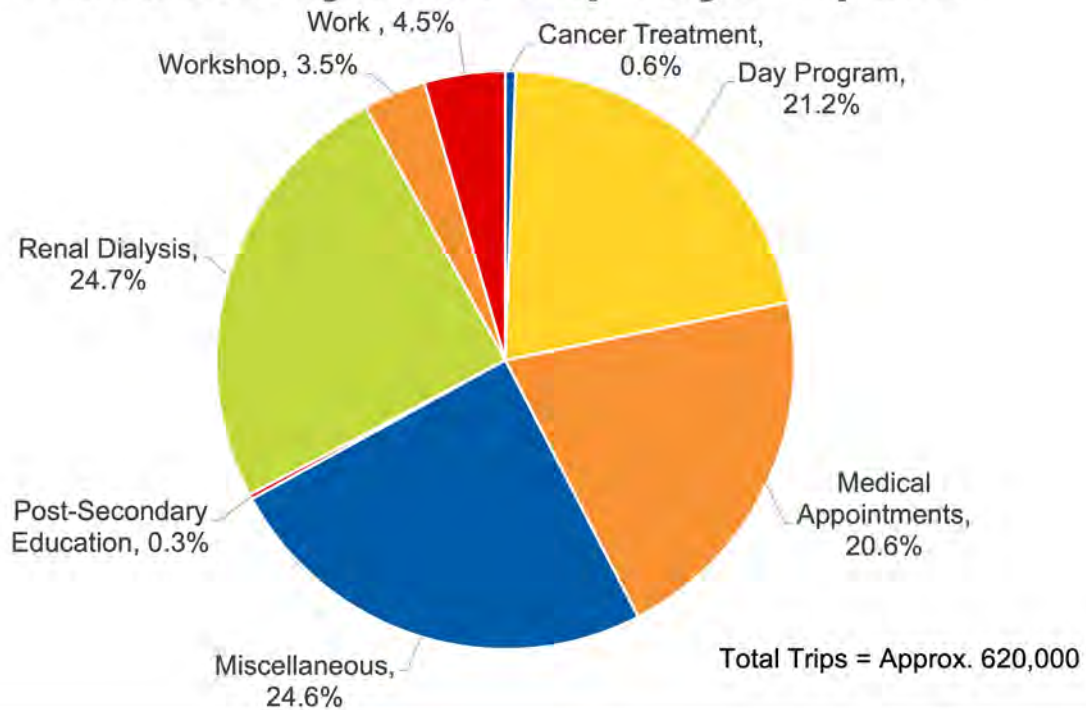
**Figure 3** – Average Kilometres per Trip by Year (HandyDART Vehicles Only)

## TRIP DISTANCE

From 2010 to 2019, the average HandyDART vehicle trip distance ranged between 8 and 9km. In 2020, that increased to 12.5km. This increase may be attributable to customers continuing to require the HandyDART service to complete longer trips, while finding alternative means for shorter trips during the pandemic.



## 2020 HandyDART Trips by Purpose



**Figure 4** – 2020 HandyDART Trips by Purpose

### TRIP PURPOSE

Despite the reduction in HandyDART demand through 2020, the service still supported many essential trips for customers. As Figure 4 shows, the majority of the approximately 620,000 trips were for renal dialysis (25%), medical appointments (21%), and day programs (21%). Trips for renal dialysis comprised the majority of trips in the initial stages of the pandemic, followed by a gradual return of other types of trips as the year progressed. The remaining trips supported work, education, and miscellaneous purposes.



## INTERMODAL TRIPS

A small share of trips are provided as intermodal trips, where HandyDART connects customers with conventional transit (such as SkyTrain, SeaBus, bus, or West Coast Express) for part of some customer journeys. Intermodal trips increase the efficiency of HandyDART vehicles by allowing them to serve more customer trips in a local area. In addition, intermodal trips can provide customers with greater spontaneity of travel and independence, and reduced travel times. The rate of customers reporting that they use HandyDART in combination with other forms of transit dropped to 17% in 2020, from 23% in 2019. One-in-ten customers indicated they chose not to take intermodal trips due to COVID concerns.

In 2020, 3,916 trips were identified as intermodal, or 0.6% of total trips. This does not include trips where the customer independently coordinated their own transfer from HandyDART to the conventional system or vice versa. Intermodal trips that are coordinated independently by a customer are not recorded by the HandyDART service, and therefore TransLink is unable to account precisely for the total number of intermodal trips undertaken by HandyDART customers overall.

## BOOKING THE TRIP

To book a trip, a customer must call HandyDART and make a reservation. Customers can book a casual trip – one-off trips – up to seven days in advance but not later than 4:00 p.m. the day before. Customers can also make subscription trips, which are repeated trips to and from the same location on a daily or weekly basis. In total, the HandyDART system received 879,565 trip requests in 2020.

In 2020, customers calling the HandyDART line waited on initial hold an average of about one minute (1:03) before their call was answered. Once answered by an agent, average calls lasted nearly 3 minutes (2:45). When combined with hold times, customer calls lasted 3:48, on average. All three metrics, average hold time, talk time and combined times decreased in 2020, due in large part to a significantly reduced call volume due to the pandemic.

In 2020, approximately 5% of all customer calls were abandoned by the customer before connecting to a booking agent. Reasons for abandoned calls are not reported. About 75% of abandoned calls were abandoned at two minutes or under, and 25% of these calls were abandoned after two minutes. Prior to the COVID-19 state of emergency in 2020, 7% of calls were abandoned. With the introduction of online trip booking planned for 2022 to complement phone booking, concerns regarding call wait times may be mitigated.

## Satisfaction Scores by Year - Booking a Trip



**Figure 5**– Average Customer Satisfaction Scores for Ease of Booking a Trip and Availability

### CUSTOMER SATISFACTION OF EASE OF BOOKING

Customers rated ease of booking a trip as 9.1 out of 10 in 2020 and their ability to book trips when they want them—the ‘availability’ of HandyDART—as 8.9 out of 10. Both metrics have been trending slightly up, building on strong scores in previous years (see Figure 5). Notably, more trips were available to customers for most of 2020 as service levels were maintained despite reduced demand from COVID-19. Nevertheless, further improvements to the trip-booking experience are underway. As mentioned previously, an online trip booking option is planned for 2022 to complement the phone booking service.



## DENIALS AND REFUSALS

Trips that are requested and not booked are tracked in two categories, Denials and Refusals.

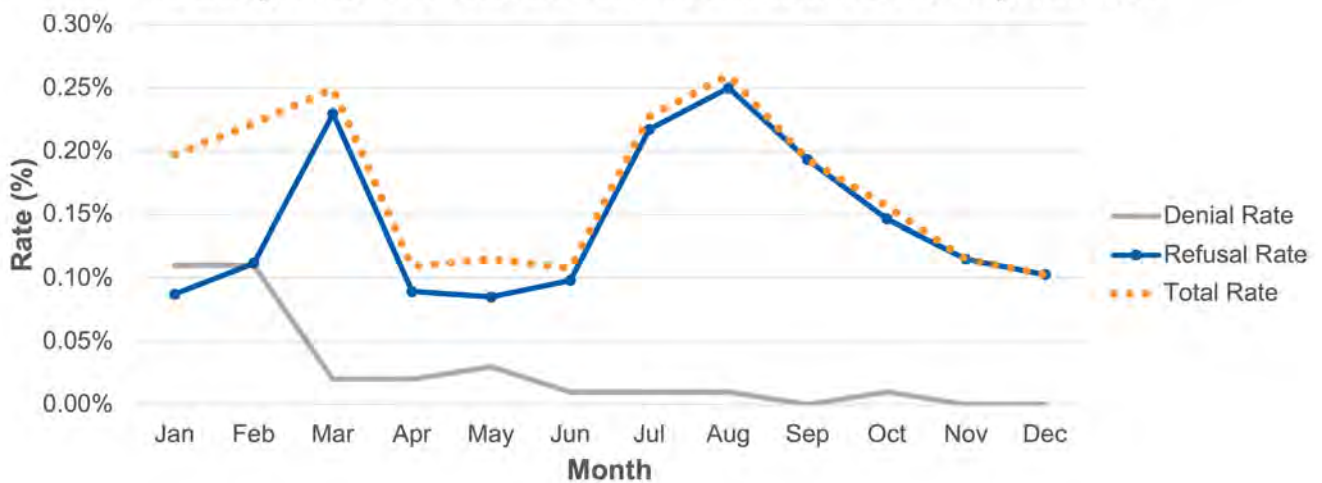
**Denial** – A HandyDART customer trip request that is not accommodated. Denials occur because requests for trips cannot be accommodated in the schedule when they are received close to the desired travel day, for peak travel times with high demand for service or for some long trips that cannot be served.

**Refusal** – A HandyDART trip that a customer refuses when offered. Trip refusals occur when a requested trip time is unavailable, an alternative time is offered (up to an hour before or after the requested time) and the proposed time is not agreeable to the customer.

In a request for a round trip, if the trip in one direction is agreeable to the customer and the trip in the other direction is not, the customer may refuse the entire trip. This is recorded as one refusal and one denial.

Due to decreased trip demand through most of 2020, monthly HandyDART average trip denials were historically low, while refusals increased slightly compared to 2019. On average, throughout 2020, 0.05% of requests were denied and 0.14% were refused. Denial rates dropped in line with demand during COVID-19 (i.e., from March onward), while refusal rates had two distinct peaks in the spring (following initial COVID-19 public health restrictions) and late summer (when COVID-19 cases were on the rise). In 2019, for comparison, denials averaged 0.08% of requests and refusals averaged 0.11%.

### HandyDART Denials and Refusals, Rate by Month



**Figure 6** – 2020 HandyDART Denials and Refusals by Month in 2020

## TRIP CANCELLATIONS

Almost nine in ten cancelled trips (approximately 213,146 trips) were cancelled by the customer after booking.

Cancellation categories include the following:

	CANCEL TYPES	DEFINITION
<b>BY CUSTOMER</b>	<b>Advance Cancel</b>	All cancellations that are made prior to the day of service
	<b>Cancel Late</b>	A cancellation that is made within 2 hour of the scheduled trip time
	<b>Cancel at Door</b>	A cancellation that is made when the driver comes to the accessible entrance of the pick-up
	<b>Same Day Cancel</b>	A cancellation that is made on the day of service but more than 2 hours in advance
	<b>No Show</b>	The customer does not show up for their scheduled trip
<b>EXTERNAL FACTOR</b>	<b>Site Closure Cancel</b>	A cancellation of multiple customers as the result of a closure of workshop, adult day program, etc.
	<b>Weather Cancel</b>	Cancellations due to inclement weather
	<b>Statutory Holiday Cancel</b>	All subscription trips other than dialysis are cancelled on statutory holidays
	<b>Missed Trip</b>	HandyDART fails to pick up the customer. The driver arrives at the pick-up too late for the customer to go or misses the trip completely

**Table 1** – Summary of Trip Cancellation Types



Most cancellations are the result of customers cancelling their own trip (as opposed to inclement weather or statutory holidays, for example), but specific reasons are not reported. Late cancellations (within 2 hours of the trip), cancellations at the door, and no-shows can have impacts on vehicle schedules and other customers' experiences. Customers are encouraged to inform HandyDART as soon as they decide to not take a booked trip, particularly if they're feeling unwell, so that the scheduled time may be used for others requiring service.

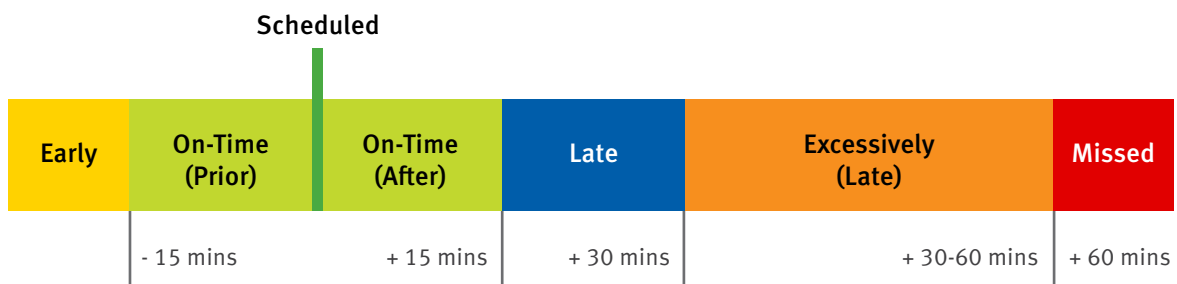
The data also records requests for Standby Trips, where customers make late requests after the booking window has closed. These are not guaranteed but may be accommodated if space becomes available, such as by cancellations. In 2020, HandyDART accommodated 16,565 Standby Trips, 2.7% of total trips delivered.

## WAITING FOR THE RIDE (ON-TIME PERFORMANCE)

For service reliability, TransLink measures the arrival times of HandyDART vehicles with the time promised at the time of booking. A trip is considered on-time if HandyDART arrives within the pick-up window – between 15 minutes prior or 15 minutes after the scheduled time. For example, if a trip is requested for 11:00 a.m. and HandyDART arrives anytime between 10:45 a.m. and 11:15 a.m., the trip is on-time.

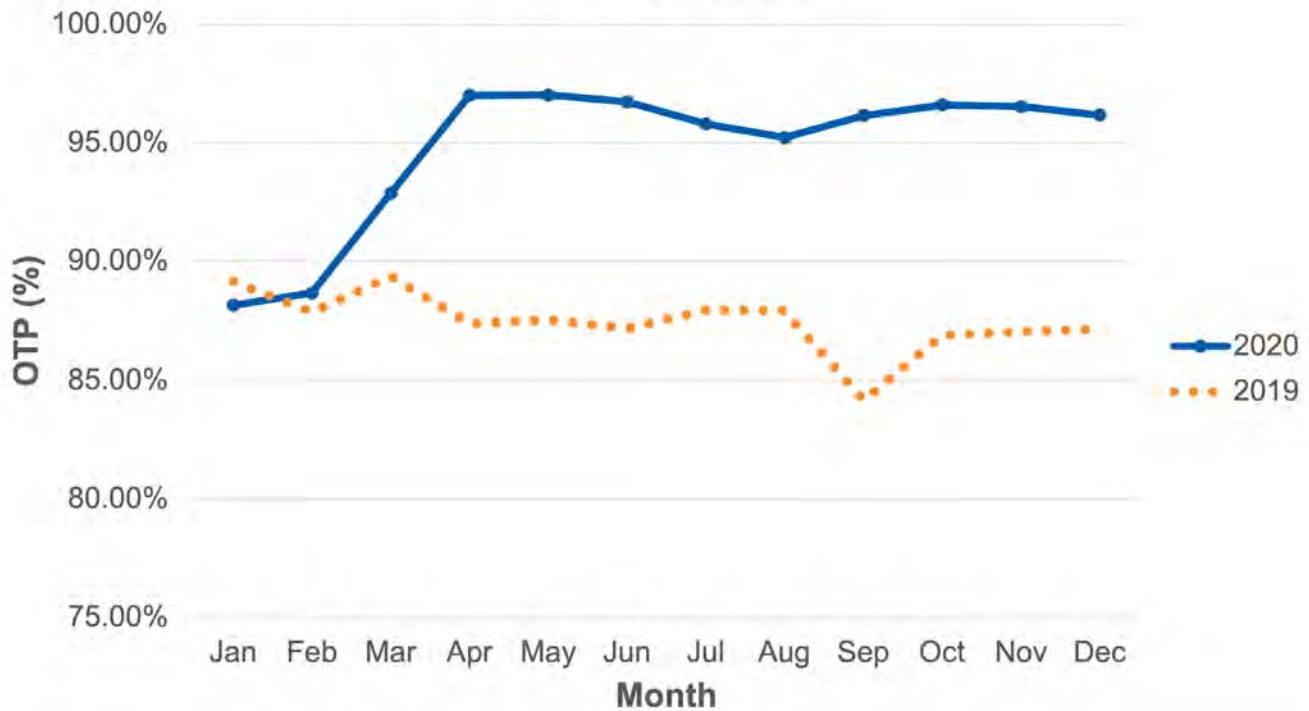
The categories (also illustrated in Figure 7) are:

- **Early** – Arriving more than 15 minutes before the scheduled time. The customer does not need to board the vehicle until the start of their scheduled pickup window.
- **On-Time (Prior)** – Arriving up to 15 minutes before the scheduled time.
- **On-Time (After)** – Arriving 1 – 15 minutes after the scheduled time.
- **Late** – 15 – 30 minutes after the scheduled time.
- **Excessively Late** – More than 30 minutes after the scheduled time.
- **Missed** – Arriving more than 60 minutes after the scheduled time and the customer accepts the trip.



**Figure 7** – On-Time Performance Categories

## HandyDART Early and On-Time Performance



**Figure 8**– Average Monthly HandyDART Early and On-Time Performance (OTP)

Building on good on-time performance from years past, in 2020, a historic high of 94% of trips were reported as early or on-time. Reduced customer demand, which increased the proportion of direct trips without stops for other customers, and lower traffic volumes on roadways resulted in this historic high. Figure 8 illustrates the trends by month comparing 2019 and 2020. Maintaining on-time performance continues to be a priority for HandyDART.



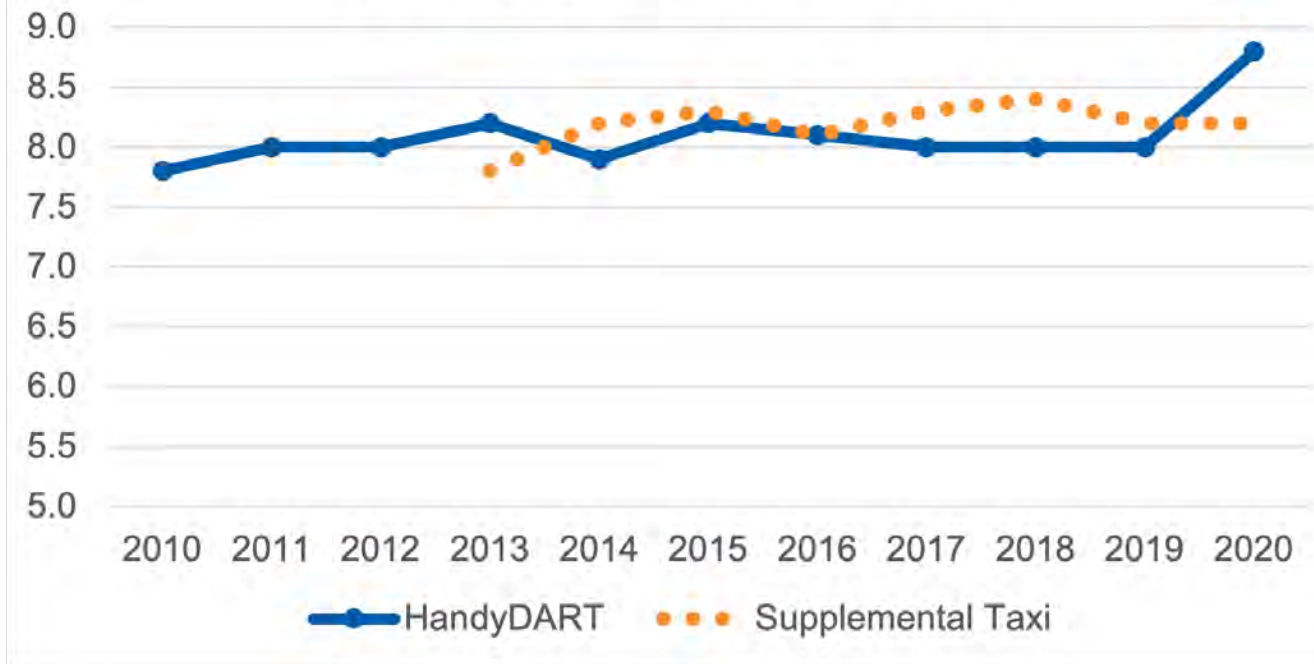
Some notable findings related to on-time performance were:

- 73% of trips were on-time within the 30-minute pickup window, with 49% of trips in the 15 minutes before the scheduled pick-up time and 24% in the 15 minutes after.
- 21% of trips arrived early, more than 15 minutes before the pick-up time (the customer does not have to board until their agreed-upon pick up window starts).
- 6% arrived late for pick-up, after the 15 minutes after the stated pick-up time.

Overall, 965 trips were excessively late out of the 620,143 trips provided (0.16%). HandyDART had 716 of these trips and Supplemental Taxi had 249. Note that taxi trips are deployed as a supplemental service, used for relief, overflow, or emergency purposes in order to complete HandyDART trips and can, therefore, receive less notice to fulfill a trip.

The HandyDART system also ‘missed’ 204 scheduled trips in 2020, meaning the vehicle arrived more than 60 minutes after the scheduled time and the customer accepted the trip. Of these missed trips, 57% were by HandyDART and 43% were by Supplemental Taxi. Every missed and excessively late trip is followed by an investigation, with the goal of minimizing the chances of it taking place in the future.

## Satisfaction Scores by Year - On-Time, Reliable Service



**Figure 9**– Customer Satisfaction Scores for On-Time Reliable Service

Customer satisfaction scores for on-time reliable service on HandyDART and Supplemental Taxi continued to remain high in 2020. In 2020, HandyDART scored 8.8 and Supplemental Taxi scored 8.2; 84% of customers scored HandyDART’s on-time, reliable service as good to excellent (8 – 10 out of 10) while 78% of customers score Supplemental Taxi service as 8 – 10 out of 10.





## PAYING FARE FOR THE RIDE (FARE PAYMENT BY FARE MEDIA)

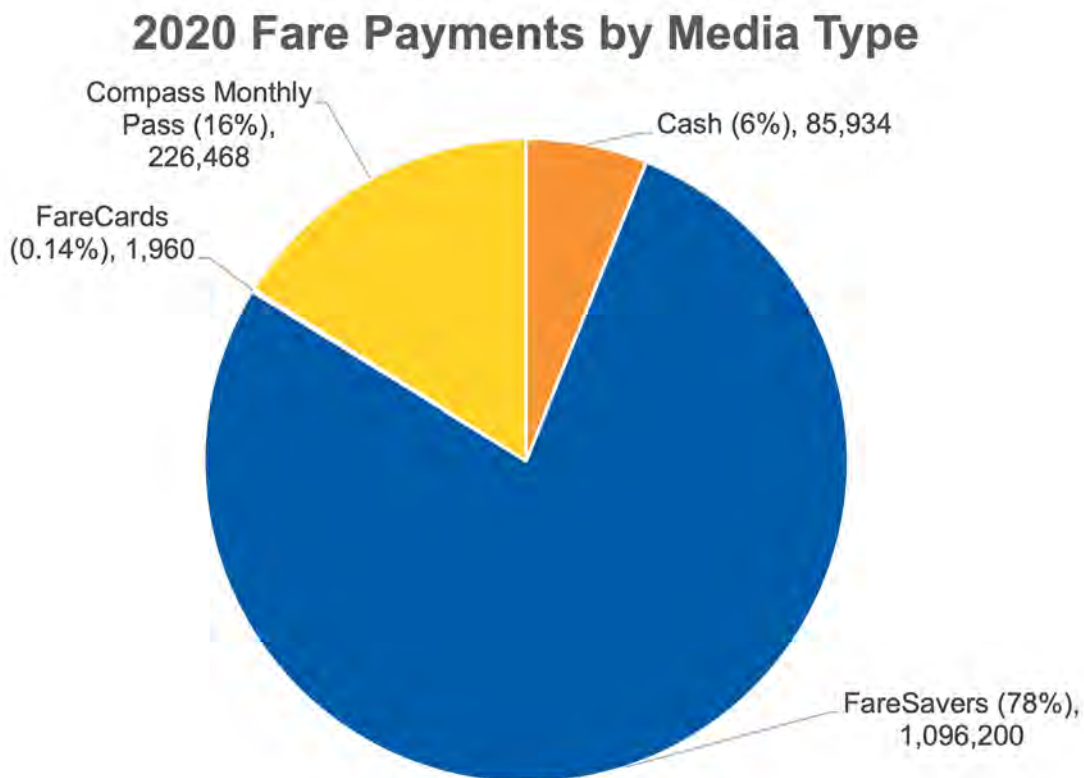
For HandyDART service in 2020, customers could pay by several methods including:

- **FareSaver** – prepaid discount fare single-trip paper tickets purchased in books of 10. FareSavers could be purchased from the driver on weekdays.
- **Compass Monthly Pass** – monthly, prepaid, unlimited ride pass loaded on a blue Compass Card when purchased and loaded from the HandyDART office.
- **Cash** – currency paid to the driver at full fare rates.
- **U-Pass** – monthly unlimited ride pass for full time post secondary students paid through student fees.
- **FareCard** – monthly, prepaid, unlimited ride paper pass.

Customers predominantly paid using FareSavers in 2020 (78% of payments). Only 16% of fares were paid with the Compass Monthly Pass and 6% with cash. Fewer than 1% of customers paid with a FareCard in 2020, compared with 5% in 2019.

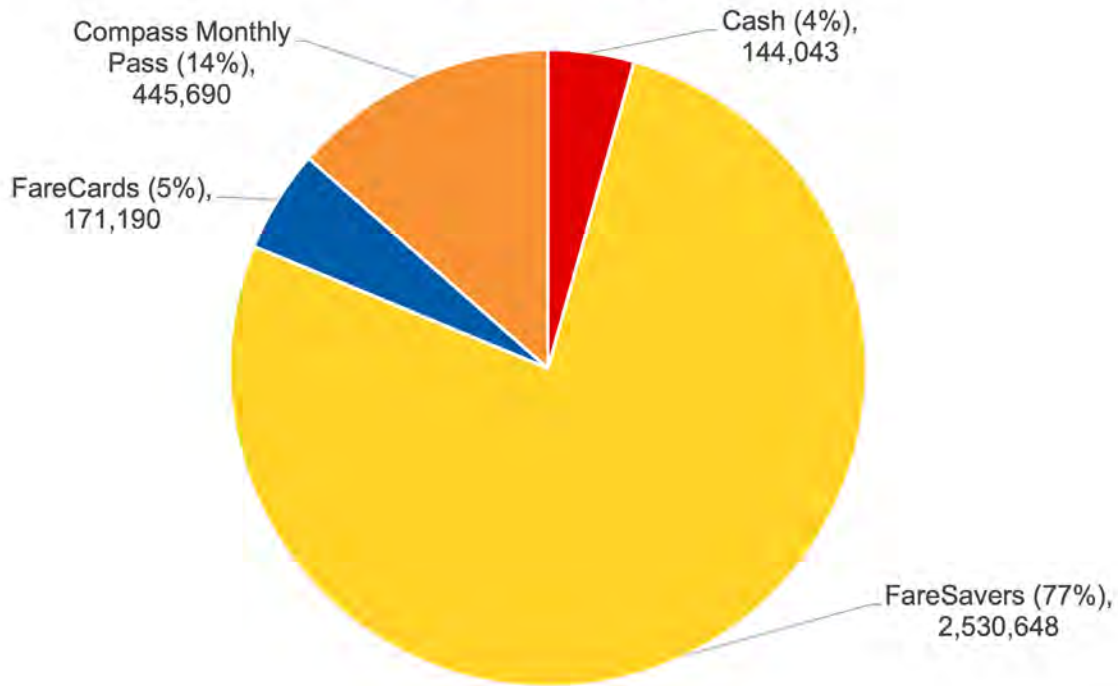
In support of a more streamlined customer HandyDART experience, customers continue to be encouraged to switch from FareCards (physical passes that need to be purchased each month) to Compass monthly passes.

As a result of decreased demand due to COVID-19, fare revenue in 2020 was \$1.4M compared with \$3.3M in 2019, down 58%.



**Figure 10** – 2020 Fare Payments

## 2019 Fare Payments by Media Type



**Figure 11** – 2019 Fare Payments

### CUSTOMER SATISFACTION OF VALUE FOR MONEY

HandyDART is high performing on the value for money customer satisfaction metric. In 2020, survey respondents gave an average score of 9.4 out of 10, continuing a decade-long trend of customers reporting a score above 9 out of 10, on average. This metric does not distinguish between trips by HandyDART and by Supplemental Taxi.







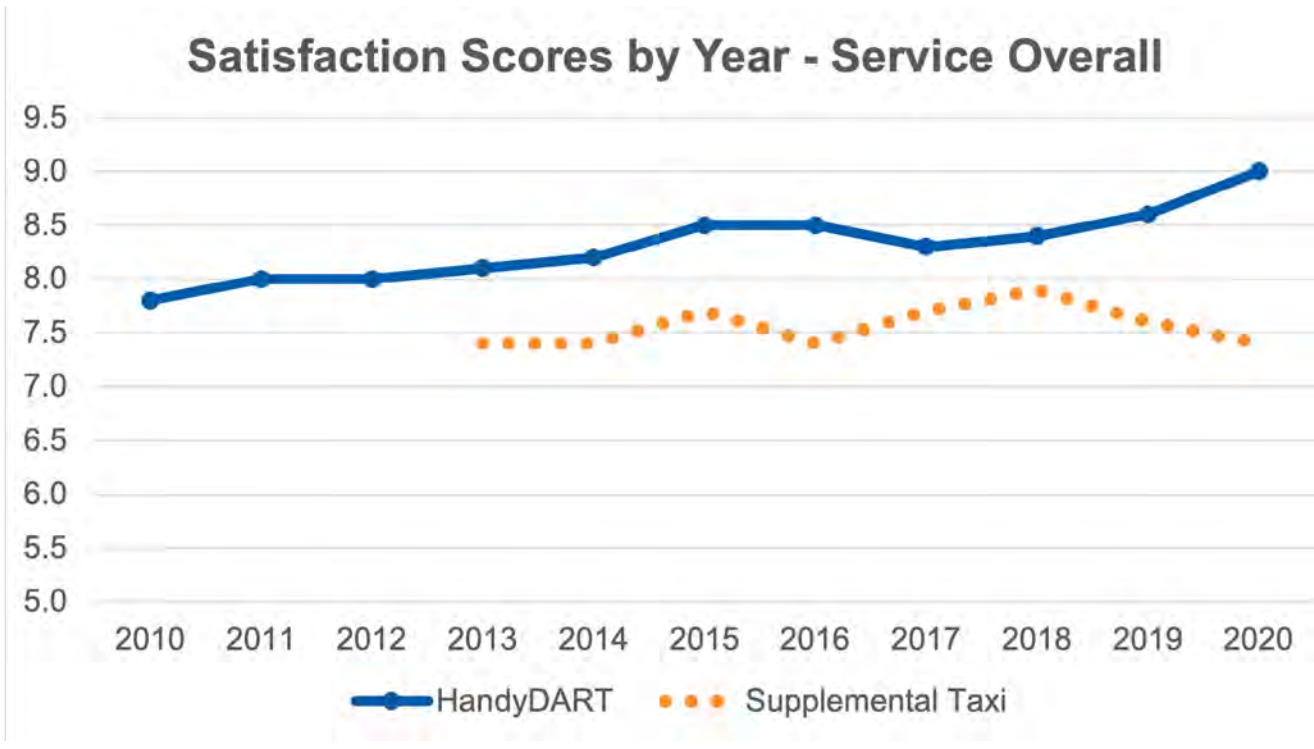
## EXPERIENCING THE RIDE

### CUSTOMER SCORES FOR OVERALL HANDYDART SERVICE

This section focuses on feedback provided by customers on overall service quality and experience with HandyDART and Supplemental Taxi driver performance.

Overall satisfaction for HandyDART continues to trend upwards. In 2020, the average score was 9.1 out of 10. Overall score for HandyDART Service provided by Supplemental Taxi remains steady throughout the years with an average score of 7.4 out of 10 in 2020.

For Supplemental Taxi, overall satisfaction has historically been lower compared with HandyDART. In 2020, the average satisfaction score dipped marginally to 7.4 from 2019's score of 7.6.



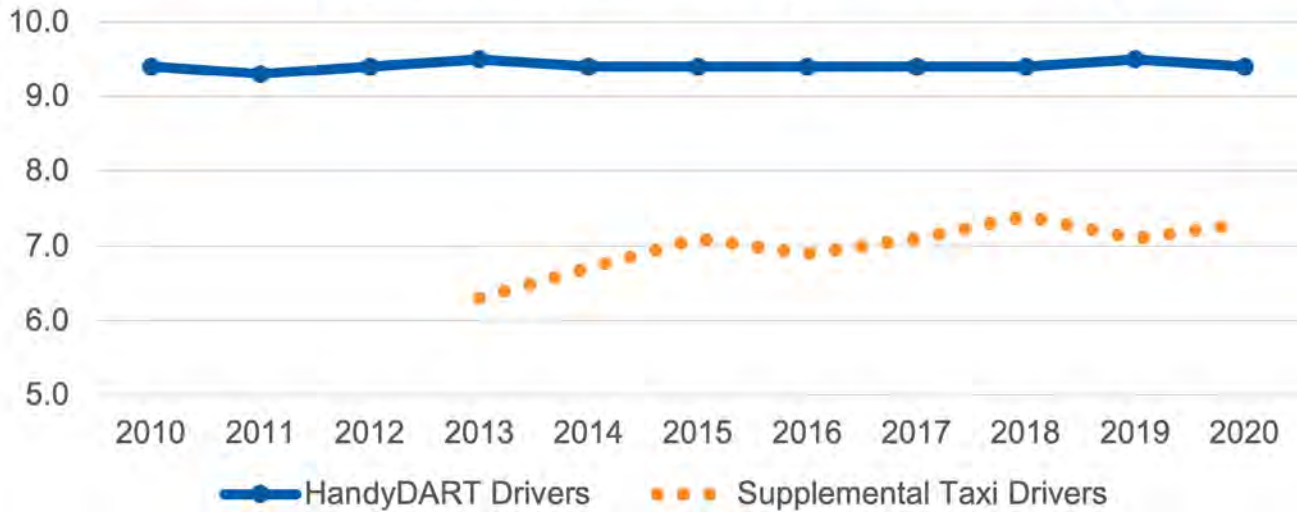
**Figure 12 – Satisfaction Scores for Overall Service**

In 2020, the average satisfaction score for courteous, competent and helpful HandyDART drivers was 9.4, maintaining the trend of an average of at least 9 out of 10 since 2010.

Customer scores for drivers’ skills to assist passengers with a physical disability vary. HandyDART drivers consistently receive an average score of above 9 out of 10. Supplemental Taxi drivers, despite having seen improvements in score since 2013, received an average of 7.3 out of 10 in 2020, comparatively lower than HandyDART drivers. Training programs for Supplemental Taxi drivers were impacted by COVID-19 and will be implemented again as soon as it is safe to do so.



## Satisfaction Scores by Year - Skills to Assist Passengers Who Have a Physical Disability

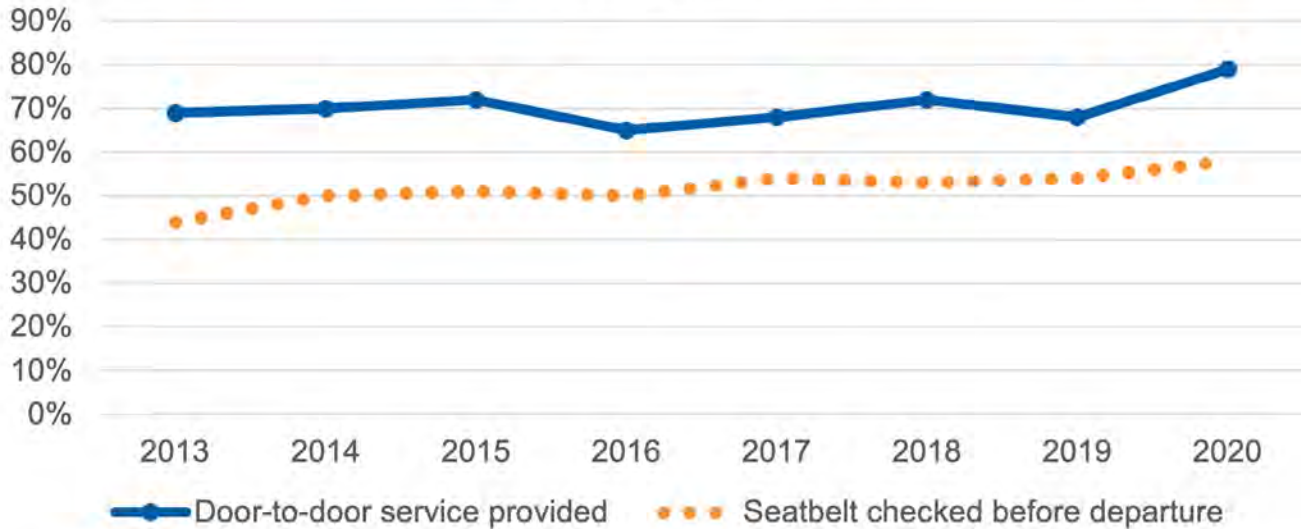


**Figure 13** – Satisfaction Scores for Driver Skills to Assist Passengers with a Physical Disability

Supplemental Taxi driver scores have seen improvement in meeting required obligations for door-to-door service and ensuring seatbelts are secured. Customer surveys in 2020 indicated that 79% of customers received door-to-door service, and that 58% of customers had been asked about their seatbelt being secured.



## % of "Yes" Responses by Year - Supplemental Taxi Service



**Figure 14** – Proportion of “Yes” Responses, Indicating Whether Supplemental Taxi Service Performed Requirements

HandyDART received 1,437 customer comments in 2020. Overall, the proportion of HandyDART client comments that were complaints decreased between 2019 (80%) and 2020 (72%) and commendations increased. Supplemental Taxi, with 221 customer comments in 2020, saw an increase in the proportion of complaints (from 88% in 2019 to 95% in 2020) and subsequent decrease in commendations. HandyDART receives more comments, generally, as the service provides significantly more trips than Supplemental Taxi overall.



## CUSTOMER SAFETY

The HandyDART customer injury rate represents the number of confirmed injury instances which occur either while a customer is inside a vehicle, boarding or alighting, or as a result of a collision.

In 2020, the service had good ongoing safety performance and a relatively low customer injury rate, a trend since 2014. Customer injury rate in 2020 was 1.3 per 100,000 boardings (9 injuries total), a slight uptick from 2019's rate of 0.7 but an improvement on 2018's rate of 1.7. The majority of injuries were minor in nature from falls being 'softened' by the driver. Continued training on safe driving for HandyDART drivers will continue to reduce injury occurrences.

This low injury rate is reflected in customer satisfaction about feeling safe on-board HandyDART. Customers answering the survey in 2020 gave an average score of 9.4 out of 10 for feeling safe, continuing the trend of annual average scores greater than 9 out of 10 since 2010.



# Operational Insights

In this section, performance metrics are presented that are related to operation of HandyDART service. These include an in-depth examination of trips delivered with dedicated HandyDART vehicles and taxis, the cost of delivering HandyDART trips with dedicated vehicles, and the number of dedicated vehicles in service. By providing these metrics on an annual basis, ongoing operational monitoring is possible in order to continue providing high quality service to customers.

## DELIVERY OF HANDYDART SERVICE

Because HandyDART trips are provided on request, the total number of customer trips provided are linked to the total number of requests customers make. Customer trips provided may be lower if fewer customers make trip requests or if some requested trips are not delivered. In some cases, trips are cancelled because of breakdowns, traffic congestion, or poor weather and the HandyDART dispatcher may send a Supplemental Taxi to provide the trip.

Service delivered is measured in trips, hours, and kilometres.

- **A Service Hour** – is one hour a vehicle is engaged in providing HandyDART service to customer(s), which excludes driver breaks, training, mechanical breakdowns and similar vehicle uses.
- **Trip** – When a registered customer is transported one way, from their origin to destination.

## CUSTOMER TRIP RATES

Due to the impacts of COVID-19, demand for HandyDART trips in 2020 was significantly lower compared to previous years. Moreover, evolving health orders throughout the year and changing customer comfort levels varied the demand for the service in any given month. January, February, and the beginning of March had near-record levels of demand. In mid-March and April, demand for HandyDART fell to approximately 20% of pre-COVID-19 trips delivered. A gradual recovery to about 40% of pre-COVID-19 trips delivered occurred throughout the remainder of the year.



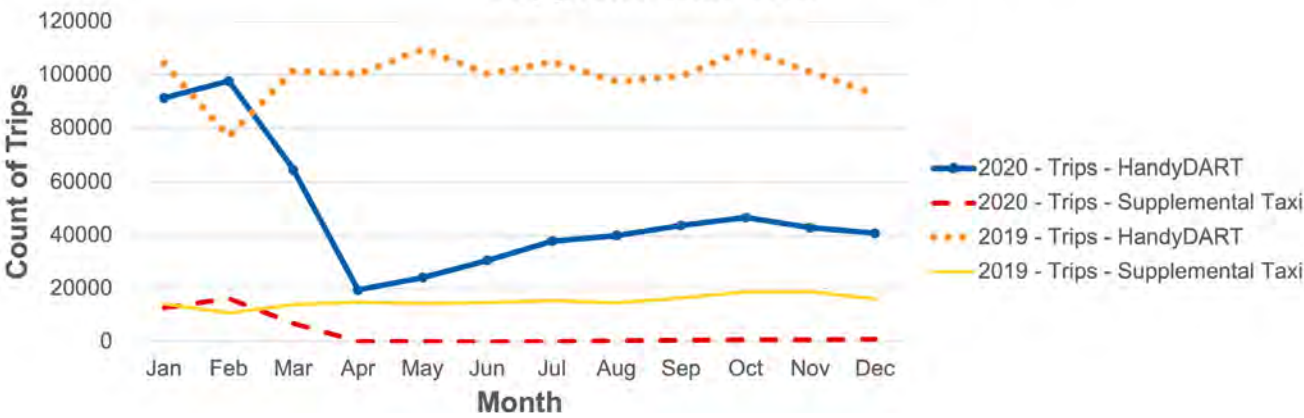
However, Table 1 shows that many trips were still delivered by HandyDART in 2020, providing an essential service to thousands of customers. In total, 620,143 trips were delivered by the HandyDART service. This includes 579,725 trips on dedicated HandyDART vehicles and 40,418 trips on Supplemental Taxi. Compared to 2019, dedicated HandyDART trips were down 52% and Supplemental Taxi trips were down 78%. Overall, compared to 2019, HandyDART delivered 761,657 fewer trips, marking a 55% decrease.

	2014	2015	2016	2017	2018	2019	2020
<b>HandyDART Trips</b>	1,094,500	1,104,900	1,095,000	1,120,400	1,166,100	1,198,300	579,725
<b>Supplemental Taxi Trips</b>	74,400	99,900	132,400	129,600	149,300	183,500	40,418
<b>Total Trips</b>	1,168,900	1,204,800	1,227,300	1,249,900	1,315,400	1,381,800	620,143
<i>Change from previous year</i>	-	3.1%	1.9%	1.8%	5.2%	5.1%	-55.1%
<b>Boardings</b>	1,299,500	1,340,400	1,365,900	1,394,800	1,475,000	1,559,500	698,000
<i>Change from previous year</i>	-	3.2%	1.9%	2.1%	5.7%	5.7%	-55.2%
<b>Budgeted Trips</b>	1,254,587	1,212,735	1,202,000	1,287,500	1,335,000	1,373,000	1,411,000
<i>Change from previous year</i>	-	-3.3%	-0.9%	7.1%	3.7%	2.8%	2.8%
<b>Percent of Budgeted Trips Delivered</b>	93.2%	99.3%	102.1%	97.1%	98.5%	100.6%	44%
<b>Service Hours</b>	553,100	557,100	560,500	587,300	548,900	518,900	421,141
<i>Change from previous year</i>	-	0.7%	0.6%	4.8%	-6.5%	-5.5%	-18.8%

**Table 2 – Annual HandyDART Trips Delivered**



### Monthly Trips Delivered on HandyDART and Supplemental Taxi

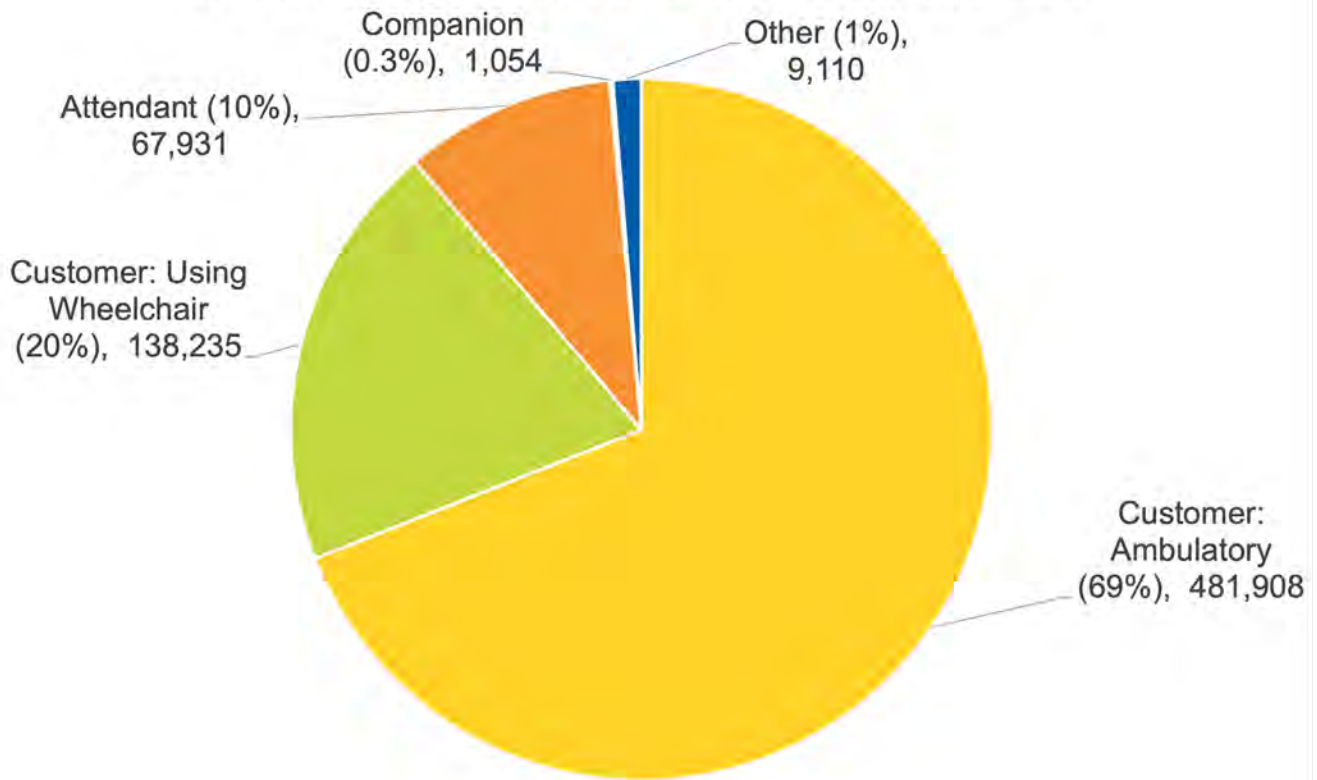


**Figure 15** – Monthly Trips Delivered on HandyDART and Supplemental Taxi, 2019 and 2020

As the region emerges from the challenges of the pandemic and the Metro Vancouver population continues to age, demand for HandyDART is expected to rebound and grow beyond existing budgeted trips.



## 2020 HandyDART Ridership Composition

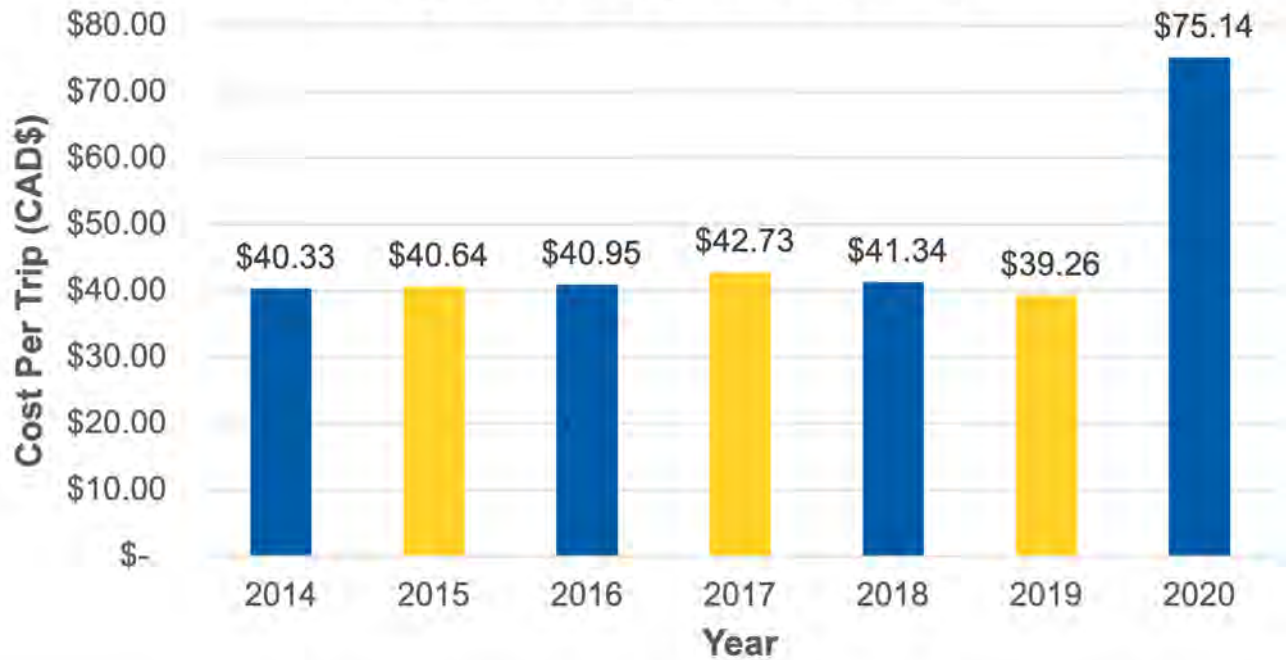


**Figure 16** – HandyDART Ridership Types, 2020

Nearly 700,000 individual boardings occurred on HandyDART service in 2020. These include customers, companions (someone who travels as a friend with a HandyDART customer), attendants (who accompany and actively provide assistance to a HandyDART customer) and spaces needed for mobility devices. The vast majority of boardings (89%) were by HandyDART customers themselves, with remaining boardings by companions, attendants and devices. As was expected based on year-over-year trends, boardings were at historically high levels at the start of 2020, but by March and April came down significantly.



## HandyDART Trip Cost Trends



**Figure 17** – HandyDART Trip Cost Trends

### COST

Although HandyDART delivered far fewer trips in 2020 compared to previous years, the number of vehicles and drivers available remained the same to facilitate physical distancing on-board vehicles and ensure customers could carry out essential trips. As a result, as Figure 17 shows, the cost per HandyDART trip increased significantly in 2020 to \$75.14, compared to \$39.26 in 2019. As Metro Vancouver emerges from the pandemic, health restrictions are eased, and rider confidence returns, greater uptake of the HandyDART service should bring costs per trip down closer to historical levels.

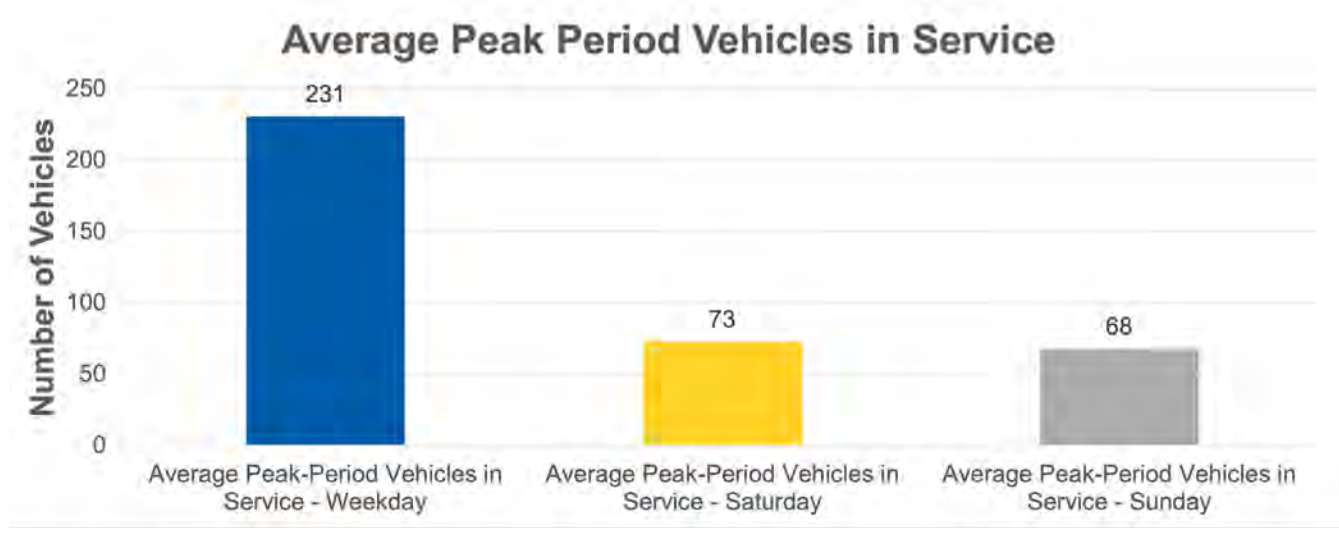
## VEHICLES

### NUMBER OF VEHICLES

HandyDART's fleet of 349 vehicles went unchanged between 2019 and 2020. The HandyDART service will continue its program of replacing vehicles as they reach the end of their service life, and undertake forecasting for future fleet expansion as the region's aging population grows.

### VEHICLES IN SERVICE BY WEEKDAY AND WEEKEND

On weekdays, there were 231 vehicles in service (on average, in the peak-period when demand was highest). On Saturdays, an average of 73 vehicles were in service, and on Sundays, an average of 68 vehicles were in Service (see Figure 18). These numbers are slightly lower compared to 2019.



**Figure 18**– Average Peak-Period Vehicles in Service

## VEHICLE RELIABILITY

HandyDART service had a total of 37 “road calls” – requests for on-street maintenance assistance – or one every 196,000 km. The main reason for a road call is to assist with a jump start.



# Conclusion

HandyDART continues to provide an essential service for registered customers who are unable to use the conventional transit system without assistance. TransLink is planning for future program enhancements to meet growing demand while supporting equity, making it easy, safe, and comfortable for everyone of all ages and abilities to get around our region.

## LOOKING AHEAD

Key program enhancements underway and planned include:

- Ongoing dedication to safety during the COVID-19 pandemic
- Enhancements to fare payment methods, such as paying for single HandyDART fares using Compass
- Online HandyDART trip-booking platform to complement the existing call centre booking system (planning is underway)
- Extending HandyDART service to children under 12 (Fall 2021)
- Ongoing engagement of the HandyDART Users' Advisory Committee
  - » The HandyDART Users' Advisory Committee allows TransLink and CMBC to hear directly from customers and stakeholders. The committee provides advice and guidance on HandyDART plans, programs and other initiatives and advises TransLink on matters to improve HandyDART service for customers.

With the growing and aging demographic in Metro Vancouver, demand for HandyDART is expected to increase in the coming years, especially as the COVID-19 recovery continues. This annual review of the service will support transparency and help ensure service quality and customer service performance continue to meet the expectations of HandyDART's diverse customer base.

