



# Intern Report

Nozomu Yoshida | TDD

— Proposal —

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2 | Persona

3 | User Research

4 | Solution

5 | Usability Test

6 | Competitive Analysis

— About Internship —

7 | What I learned



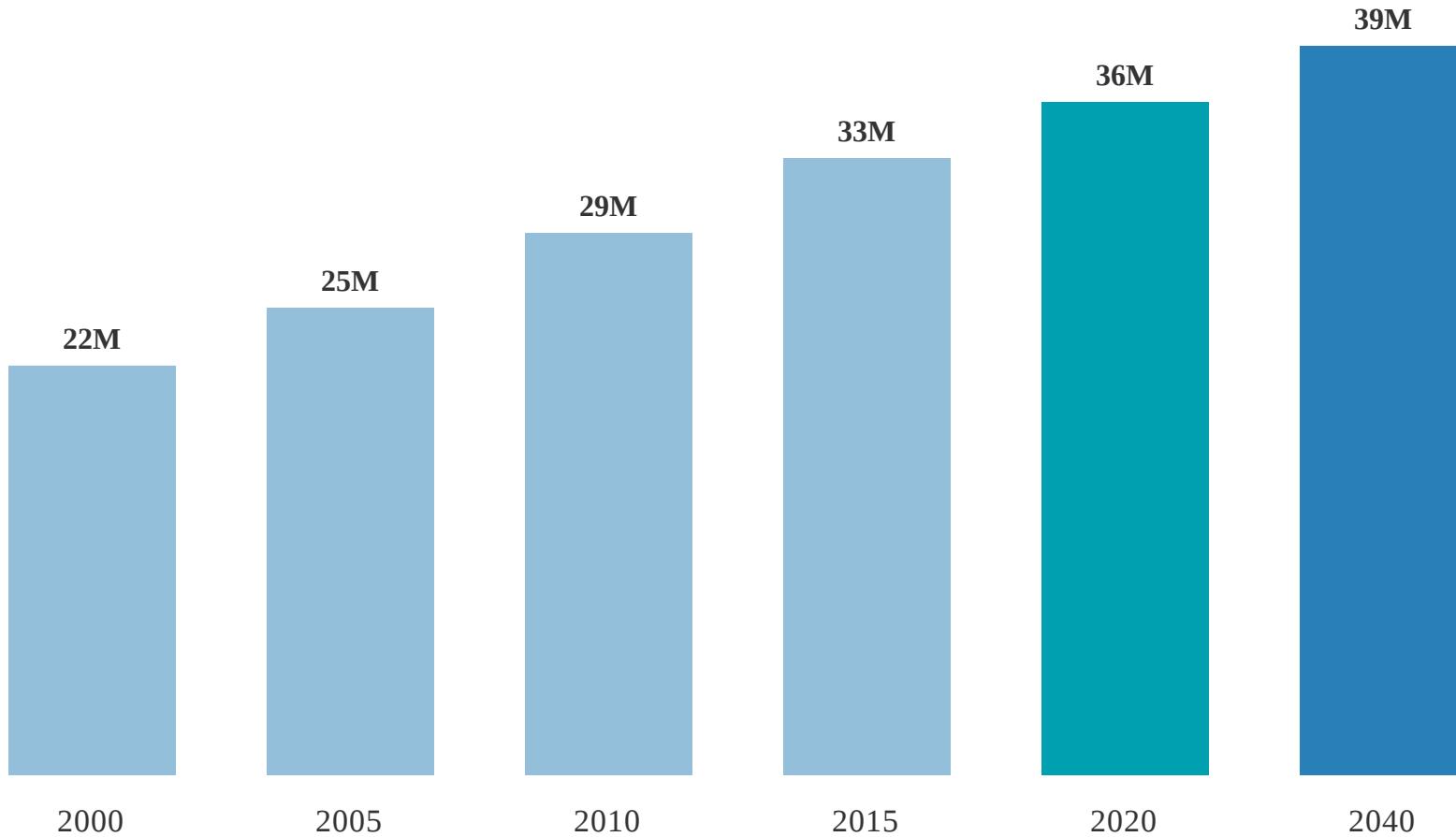
Market

Market

# Physically disabled aged people



# Number of aged people (65+) In Japan

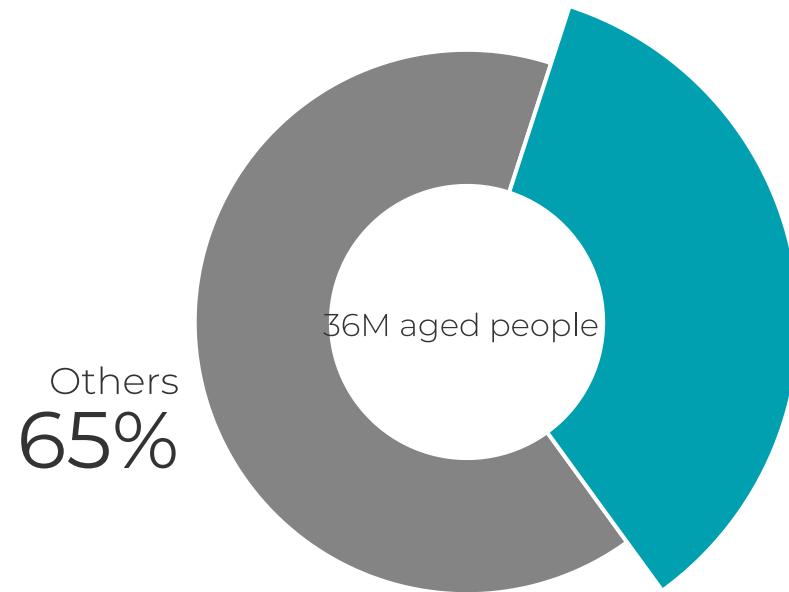


THE NUMBER OF AGED  
PEOPLE IN JAPAN

**36M** People

The number is  
expected to continue  
to grow in the future

# In the 36 M aged people...



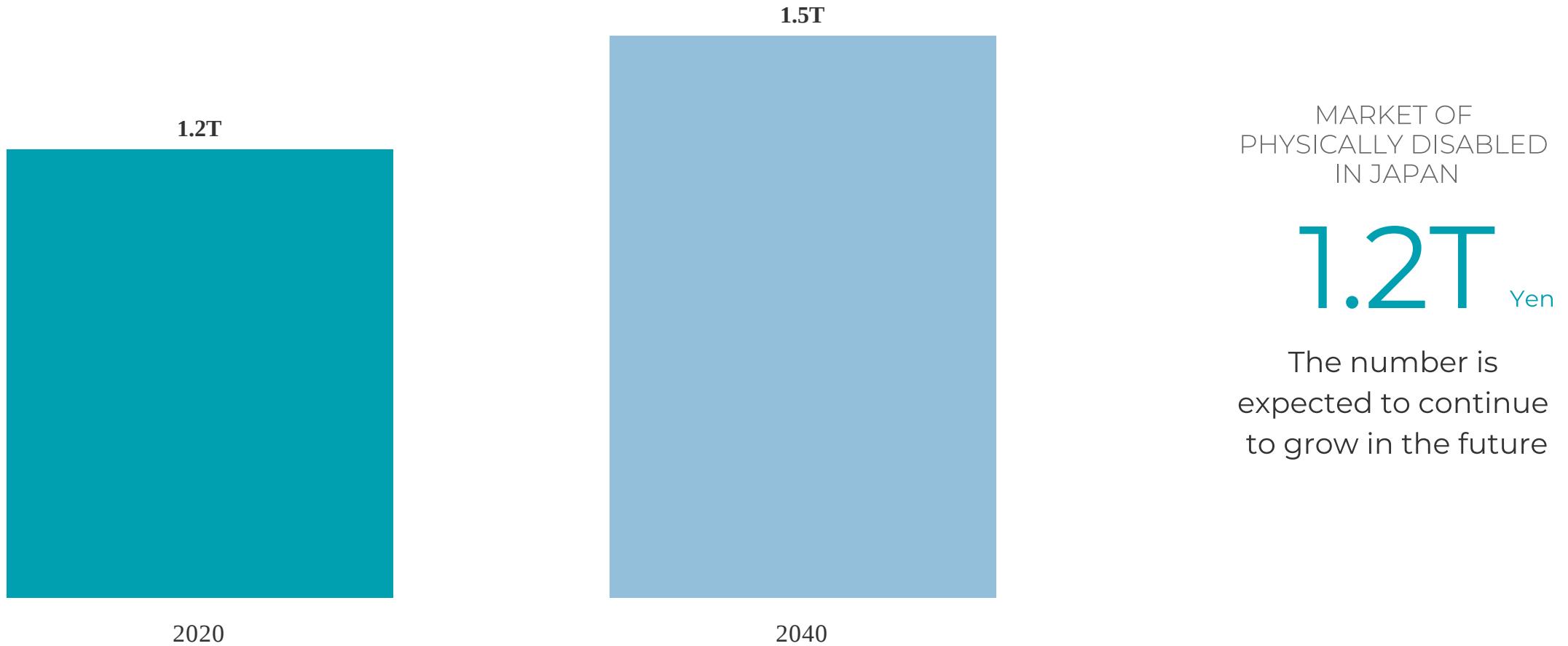
Physically Disable  
**35%**

**35%**

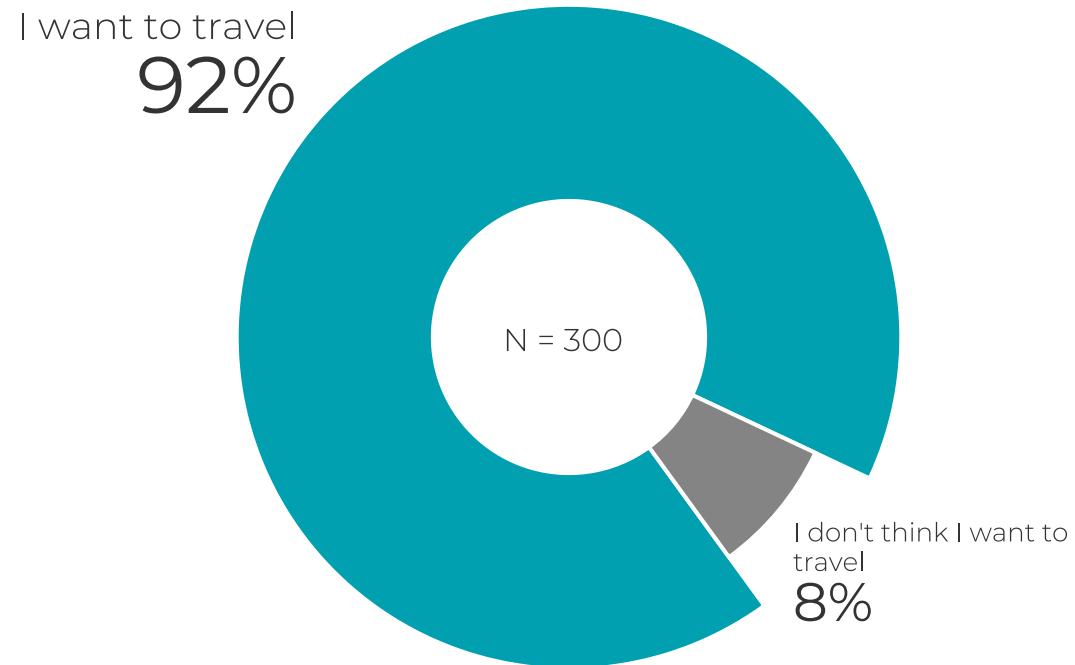
OF AGED PEOPLE ARE PHYSICALLY DISABLE

Equal to 12.6 M people

# Market of physically disabled In Japan

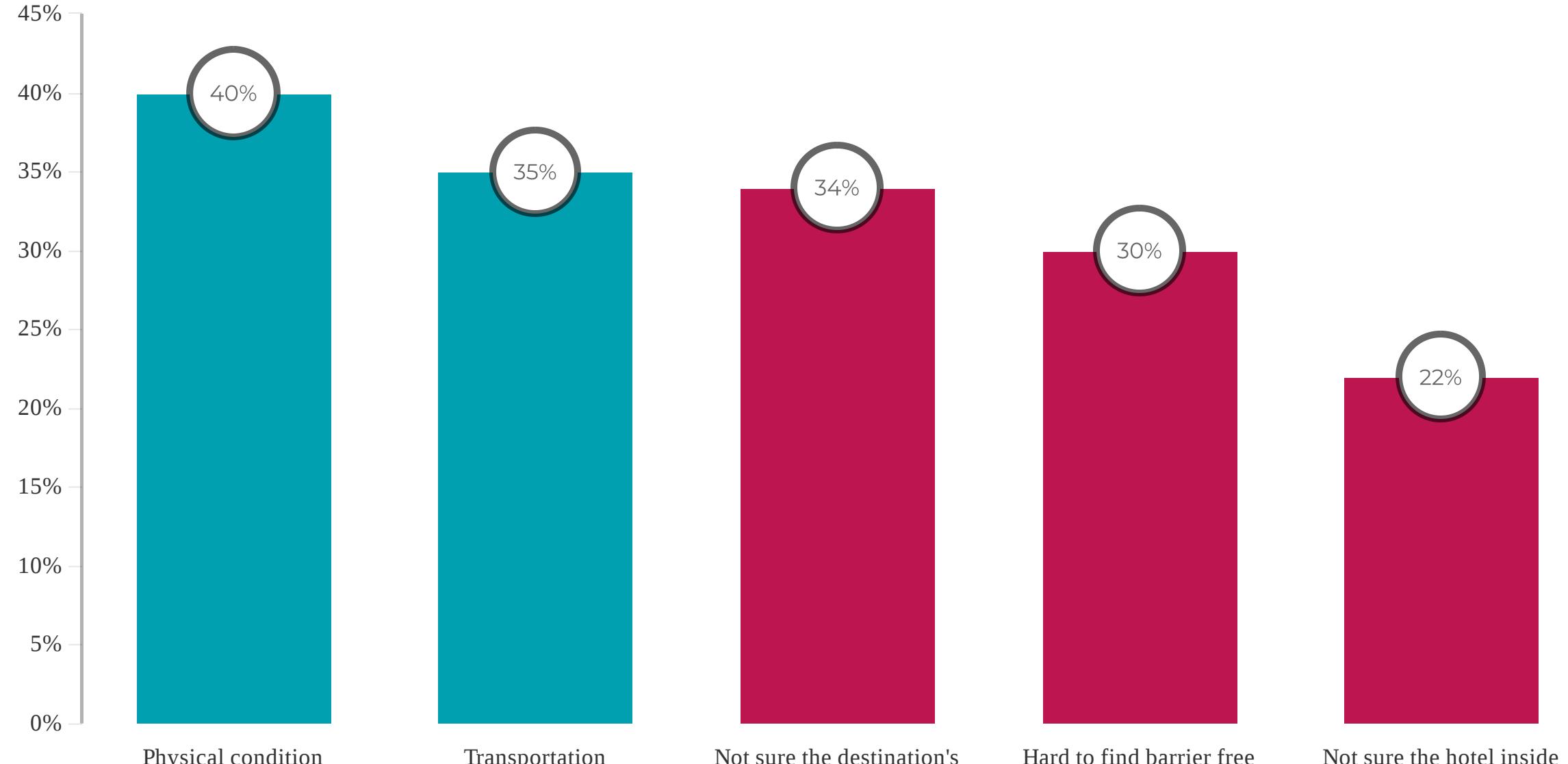


# Do they want to travel?



**92%**  
OF PHYSICALLY DISABILITY  
THINK THEY WANT TO TRAVEL

## What are the barriers to travel for physically disable?



N=300

Survey on barrier-free support for travel destinations, RECRUIT, 2016 Nov

MADE WITH

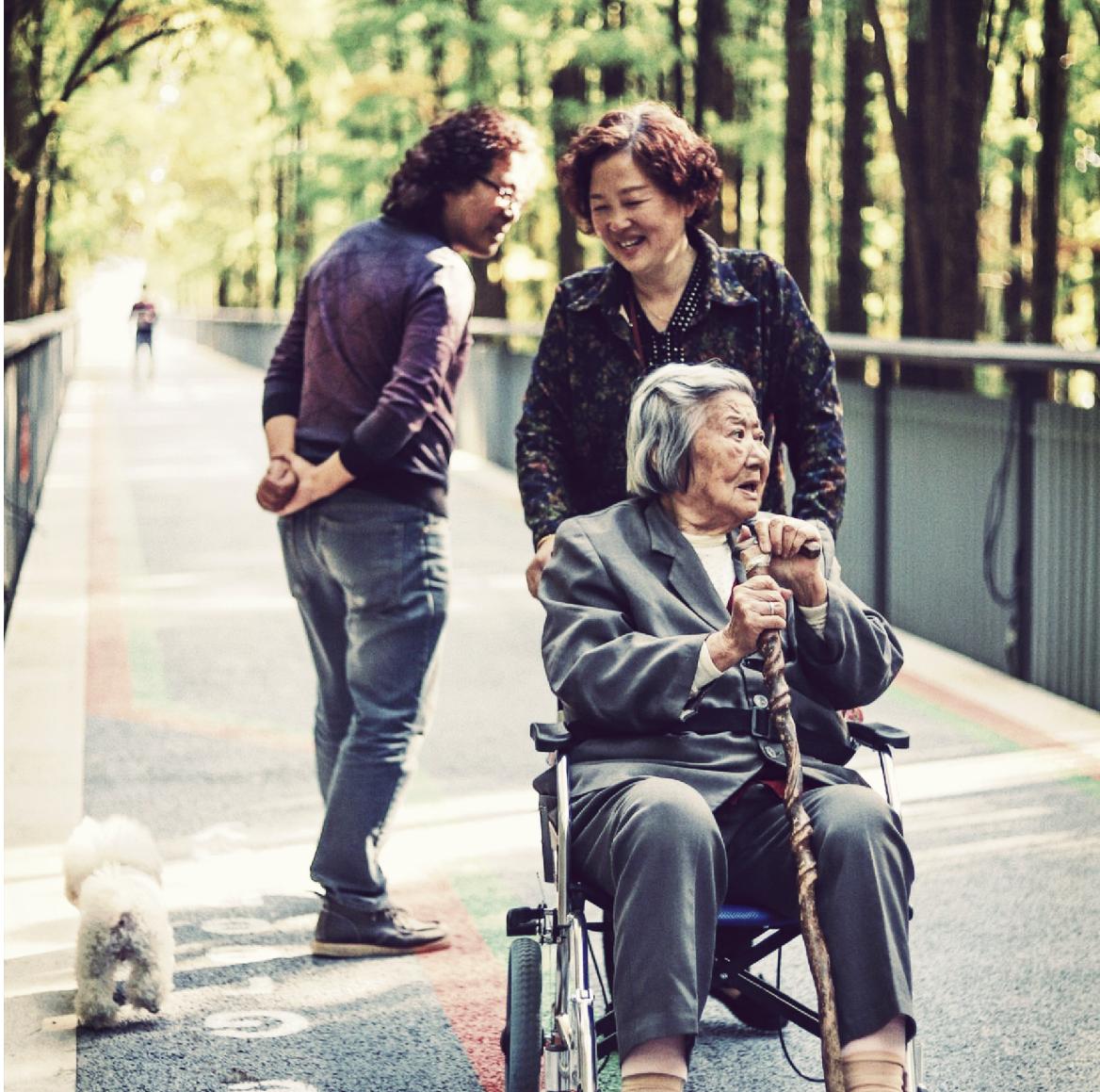
**beautiful.ai**

# Market summary

- Market: 12.6M Physically disabled aged people
- They have the potential of 1.2 T yen market
  - The number is growing in the future
- 92% of them want to travel
  - 43% of them don't go or plan travel
  - Lack of accessibility detail in hotel is one of the main reasons



# Persona



# Yoshiko

- 76 years old
- Can't walk so that wheelchair user
- Her daughter takes care of her as a caregiver
- Dreams to visit onsen around Japan



# User Research

## User Research

# How I conducted



### Participants

- 9 aged and/or low-mobility people
- Aged (60+): 7 in total
- Low-mobility: 6 in total
- Including 3 wheelchair user



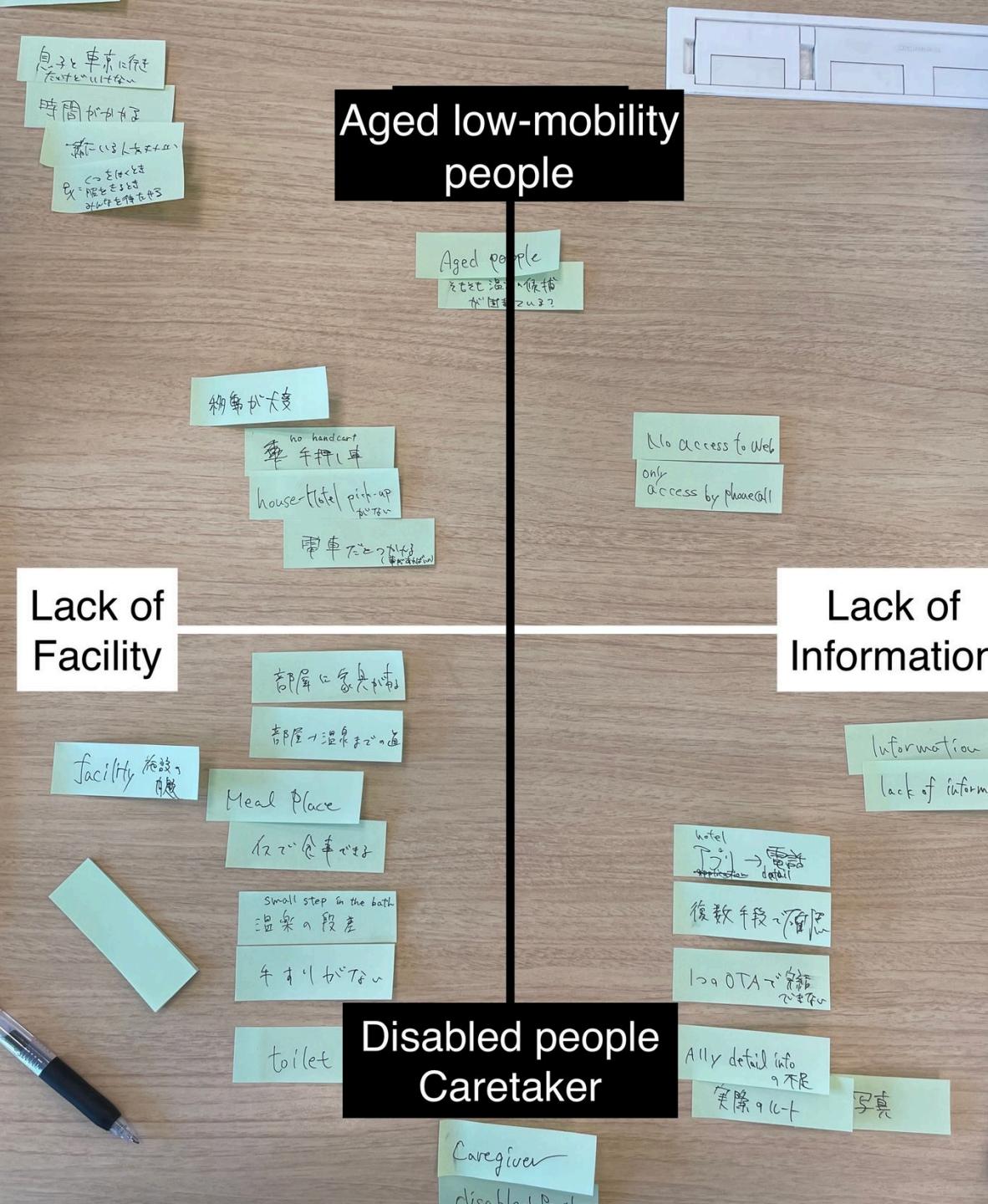
### Method

- Phone Interview
- 30-60 min
- Emphasize as design thinking



### Question

- Problem when travel
- How to plan travel
- Motivation to travel



## User Research

# The problem

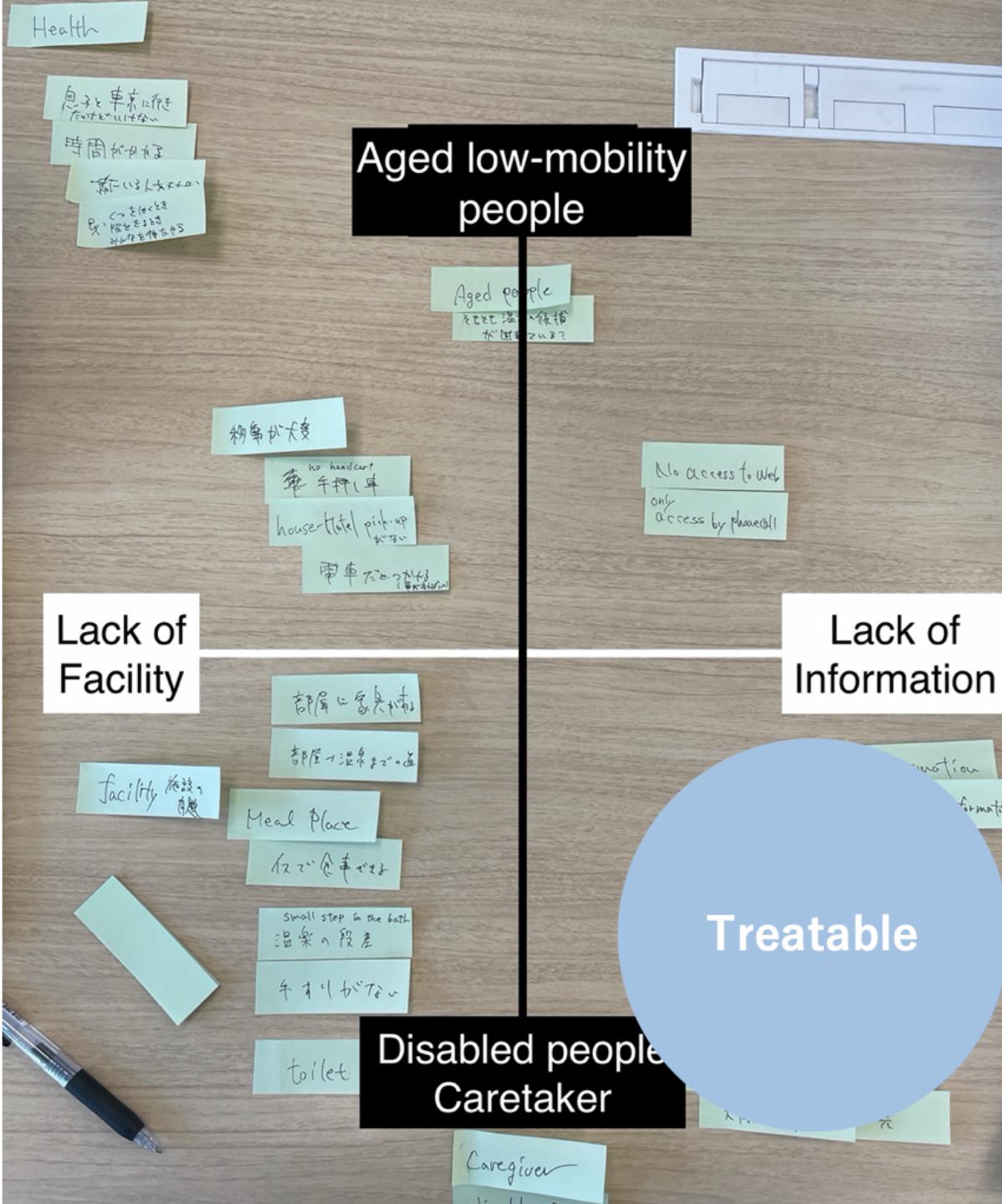


## Lack of facility

- No handrail in the bath
- No handcart
- No pickup service

## Lack of information

- Disabled person with low-mobility and caregivers simulate the end-to-end path during the travel
- But current domestic OTAs don't provide the detailed information on accessibility
- Which causing double check via both OTA and phone

**User Research****The treatable problem****Lack of information**

- Disabled person with low-mobility and caregivers simulate the end-to-end path during the travel
- But current domestic OTAs don't provide the detailed information on accessibility
- Which causing double check via both OTA and phone

# When wheel chair users plan travel with OTA...

- Why they worry when planing travel via OTA? -



## #1: Findability

- Displayed non-barrier free hotels
- Keyword search won't work sometimes



## #2: Lack of Accessibility Information

- Attractive, but not accessibility-oriented picture
- Few picture of toilet, bath, and door of the room



## #3: Not End-to-End

- They can't simulate end-to-end path in the hotel
- e.g., Entrance to room / room to bath

---

# Issue

Disabled person with low mobility and caregivers of family members need to check precisely the hotel accessibility features and simulate the end-to-end path to the hotel facilities, but current online travel agencies don't provide the detailed information on accessibility, causing them a lot of worry and forcing them to spend a lot of time planning the trip.

---

# Goal

Disabled person with low mobility and caregivers of family members can have peace of mind and save time when planning a trip by checking precisely the hotel accessibility features and simulating the end-to-end path to the hotel facilities.



# Solution



# Accessibility OTA

---

Don't worry anymore

Shibuya

9/24/2019

9/25/2019

2 guests, 1 room

Search

Filter

\$0 - \$250

Swimming pool + 1 more

4 - 5 stars

Wonderful 4.5 + 1 more

Pay at the hotel

Map view

Hotel + 1 more

Sort by Recommended

1,982 Hotels in Shibuya

★★★★★  
Stream Excel Hotel Tokyu if text is so long as  
Stream Excel Hotel Tokyu if text is so long as ...

4.58/5 (Reviews 130)

✓ Free cancellation Until 2019-12-13 19:00

🛏 Breakfast included ⚡ Free Wi-Fi

📍 10 minute walk from east exit of JR Shibuya station, in front of ...



-75% Today

\$176.66~

Per Room

2 Guests 1 Night

★★★★★  
SHIBUYA HOTEL EN

3.98/5 (Reviews 1,511)

✓ Free cancellation Until 2019-12-13 19:00

🛏 Breakfast included ⚡ Free Wi-Fi

📍 10 minute walk from east exit of JR Shibuya station, in front of ...



-75% Today

\$176.66~

Per Room

2 Guests 1 Night



The Millennials Shibuya

3.54/5 (Reviews 120)

✓ Free cancellation Until 2019-12-13 19:00



\$102.12~

Per Room



Provider List

Shibuya

9/24/2019

9/25/2019

2 guests, 1 room

Search

Filter

Filter

\$0 - \$250

Swimming pool + 1 more

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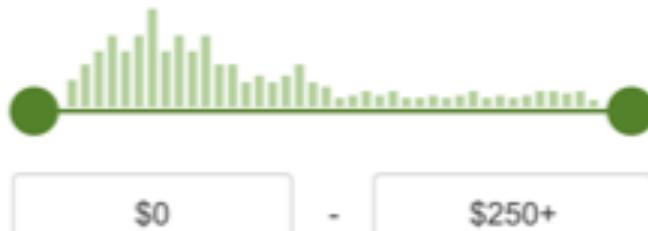
X Sort & filter

Sort by

Recommended

Price Range

The average price per room is \$120



Suggested filters

Swimming pool

Breakfast included

Barrier free

Show more

Barrier Free

Star rating

5 stars

4 stars

3 stars

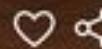
Show more

Filter  
popup



## Shibuya Stream Excel Hotel Tokyu

Grand opening on September 13, 2018 @ Directly connected to Shibuya Station (Exit 16B) Space with original design and functionality



See all photos

**4.5 Excellent**  
130 reviews from verified guests.

[See more detail](#)

A creative atmosphere combining an interior with old and new items arranged in a fashionable and modern manner along with superior functionality. A creative ...

[See more detail](#)

**Hotel facilities**

|             |            |
|-------------|------------|
| Pool        | Free Wi-Fi |
| Non-smoking | Restaurant |
| Bar         | Parking    |

[See more detail](#)

3 Chome-21-3 Shibuya, Shibuya City, Tokyo 150-0002  
300m from Shibuya Station

Hotel Information 1

### Choose your room



Check in:

9/24/2019



Check out:

9/25/2019



Guests:

2 guests, 1 room



Filter

2 Beds

Breakfast

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# Hotel Information ②

## Choose your room

Check in:  
9/24/2019

Check out:  
9/25/2019

Guests:  
2 guests, 1 room



Filter

2 Beds

Breakfast

### [Non-Smoking] standard twin room with great ocean view



1 Twin Bed  
24m<sup>2</sup>  
Max 2 Adults / 1 Child

Bath  
Television  
Non-smoking

[See room details >](#)

360° room viewer



360° interactive movie



Only 1 room left!  
Breakfast plan

-75% Today

\$526.75

**\$176.66**

per room

Reserve

✓ Free cancellation until

04/22

⌚ Earn 300 points (JPY)

🛏 Breakfast ⏰ Early Check-In ✓ Late CheckOut

[Get 35% off coupon](#)

Lore ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna ...



[See plan details >](#)

Room only plan

**\$185.24**

per room

Reserve

✓ Free cancellation until

04/22

⌚ Earn 300 points (JPY)

🛏 Breakfast ⏰ Early Check-In ✓ Late CheckOut

You've successfully claimed this coupon!

Lore ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna ...



[See plan details >](#)

Breakfast and dinner plan

**\$198.59**

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# Why Accessibility OTA?



Only Carefully-Selected Hotel

-> Filtering with “Barrier free”



360° Room Viewer

-> Never miss the tiny obstacle

[Demo](#)



360° interactive FPV movie

-> End-to-end path simulation in detail

[Demo](#)



# Usability Test

## Usability Test

# How I conducted



### Participants

- 2 wheel chair users interested
- Both interested in accessibility OTA



### Method

- Zoom Interview
- 30-60 min
- Complete the task



### Task

- Finish the reservation
- Start: hotel information page
- End: until they request to click 'reserve' button
- \* *Not until reservation confirmation*

## Usability Test

# Result



### It works

- They could finished reservation in hotel info page
- Both 2 tester used accessibility features and checked the accessibility detail



### Limitation

- They control UI not directly, but through my screen
- Not until the reservation confirmation in the next page



# Competitive Analysis

# Positioning





# What I learned

# Daily Report

## Daily report

### 一次面談

カジュアルに色々楽しく話せた

一次だけで来てくださいって言われて嬉しかった

プロダクトマネージャーという、今までやってきた中で一番スキルが広げかせそうな職種

とりあえず受けた

面談提出した

### 2/17 水曜

\* セットアップ

\* ジュリアンさんと顔合わせミーティング

\* ジュリアンさんとTerriさんのミーティング

インターン初日だった。Viberでのやりとりが基本だった。セットアップで手間取ってしまった  
ロダクトが、どうすればより多くの人に、より効率的に使ってもらえるようにできるのかを

Presentation finished. Filled attendance of this month. Trying to understand what's going on in the meeting. Prepared data for the persona. Microtask

3/8

- Add information to website
  - Academic info
  - My number
- Try to write PRD and wishlist with confluence
- Join IT training tool lecture on zoom

3/9

- User interview
  - Shingo
  - Fujita-san
  - Miyo-chan
- Join meeting
  - Everest SWH sync
  - Everest Status hearing

3/10

- Data & Box の My Folder IC
  - Analysis を見つけた
  - ↑ Tiffany にも分析してもううる
  - +その前にミーティングの予約をする
    - + Analytics meeting: they are taking definition: reservation\_time and cancellation\_time
      - \* there are two bugs: PRD bug, technical bug
      - \* Julian list up dimension name
  - PDM meeting
    - \* Feedback from suppliers
      - \* generally good
    - \* Go to coupon create page is now available but don't create!
    - \* Kaneko-san will leave Rakuten end of this month
    - \* Introduction of Takahashi san
      - \* Developing his own service related to Travel
      - \* Likes car driving and traveling
      - \* Speciality on computer vision

3/11

- Observation report by ppt with Tiffany ppt
  - survey data
    - reservation
    - Insights on Conferences-with-template
    - traveler-experience-forming-to-travel
  - PDM meeting for catch-up with Terri-san
    - \* Everest: status hearing for the DRHUI related
      - \* Status confirmation
      - \* Data catalog の内容（サンプルデータもほしい）

3/10 Wed

- Dig the interview
- Join the meeting at Everest 面接 step確認

3/12

- Find insights
- Analytics NextStage Weekly meeting
- PDM Meeting
  - \* Update from Kumagai-san, ITC lab on 2/19, OTA means Online Travel Agency? RC means for what? like RC 2.0!
  - \* Web Design Rule that proposing installing the common rules, which saved 24% per month

  
Planning the common rule is also helpful for internship

- Greeting with Tanmay
  - \* Next week
- Insight report in catch-up
  - \* They modified Data catalog, which added data-example, description, note, also confirmed the definition of the word, like "review"

3/15

- Office visit
- Meet with other interns

3/25

- Usability Test Demo by Steve Krug  
 This video shows an example of a complete usability test. I created it originally for readers of Rocket Surgery Made Easy: The Do-it-Yourself Guide to Finding...
- <https://www.youtube.com/watch?v=tUDDQUBlaS8>

### Usability test

- \* With 2 persons
- \* Separate the position state as A and B
  - \* A: Not shown in the page, just appear when user click "see room detail"
  - \* B: Shown in the page, just below the room pictures

### Procedure

1. Explain the features like room-around-view and end-to-end path movie
2. Explain the position of the 2 features in the website mock up
3. Give them the situation; Let's make appointment from this page
4. Let them control the website by requesting me to scroll or click during my screen sharing

### Result.1 (state A)

1. Check the room picture
2. Check the room-around-view (esp. Where he take off his shoes, bath, toilet)
3. Check the end-to-end path
4. Check the breakfast venue
5. Check enquiry form (not shown in the page, might be shown in the reserving page)

### Result.2 (state B)

1. Check the hotel picture
2. Check the room picture
3. Check the room-around-view (esp. door size, bath, toilet)
4. Check the end-to-end path
5. Check the access map
6. Check the phone number, but she couldn't get (not shown in the page)

### Feedback

As for the position of the accessibility features: room-around-view and end-to-end path, they both recommended state B (shown in the page).

P1: 50+ user maybe can not find that feature if state A

P2: It's easy to find the feature if state B. It should be appealed in front.

### Limitation

They can't control the actual user interface, just requesting me to control it.  
 The accessibility features were not implemented. I just explained it and ask them to imagine it, before the test.

### Usability test

3/26

- Presentation
- touch Beautiful.ai
- Sort out the data and upload to BOX
- user interview (add to the existing one)
  - user-feedback-for-SNS
  - user-feedback-3-(1 audio, 2 zoom)
  - usability-test-2-(2 zoom)
- Reflect the feedback from Julien
  - Add specific indicator
  - Refer the other intern's PRD

3/27

- Modify PRD
  - Add filtering feature
  - Make presentation

3/29

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COMPETITIVE\_ANALYSIS  
IT\_TRAINING\_LECTURE

ISSUE-DRIVEN

TORII-SAN  
JOHN  
ASAIAI

FIND\_INSIGHT

PRD  
KUMAGAI-SAN

PAIN\_POINT

LUXURY

USABILITY\_TEST

PRIORITIZE

PRODUCT\_MANAGEMENT

EXTRANET  
FIGMA

TANMAY  
CONFLUENCE

IMRAN

CATCH\_BOX

JULIENS

MENTORING

DESIGN THINKING

USER\_RESEARCH

REFRAME

TANAKA-SAN  
LANDSCAPE

WISH\_LIST  
MANY\_MEETING

HENDRICK  
OFFICE\_VISIT

KWON  
TAKEI-SAN

EVEREST  
CLOUD

BTB  
KURI

REPORT  
BEAUTIFUL.AI

CRIMSON\_HOUSE  
WORKDAY

SCOPE

DATA\_CATALOG

PERSONA  
KANEKO-SAN

USER\_STORY

DWH  
DAN

CHRIS  
DINNERS\_WITH\_RYO&MIA

OBSERVATION  
REFRAME

SOLUTION\_MAP

▶ Why PDM intern?

- ① Learn and know what PDMs do in Rakuten
- ② Utilize PDM skills for my own business / research

▶ What will I do in PDM intern?

- ① Join the meetings and learn how PDMs work
- ② Study PDM with article / book / previous PRDs
- ③ Write PRD ← ✓ Main Task!
- ④ Connect PDMs and other Rakuten members



**Clear!**  
(Partly)

▶ Why PDM intern?

- ① Learn and know what PDMs do in Rakuten
- ② Utilize PDM skills for my own business / research

Go for it

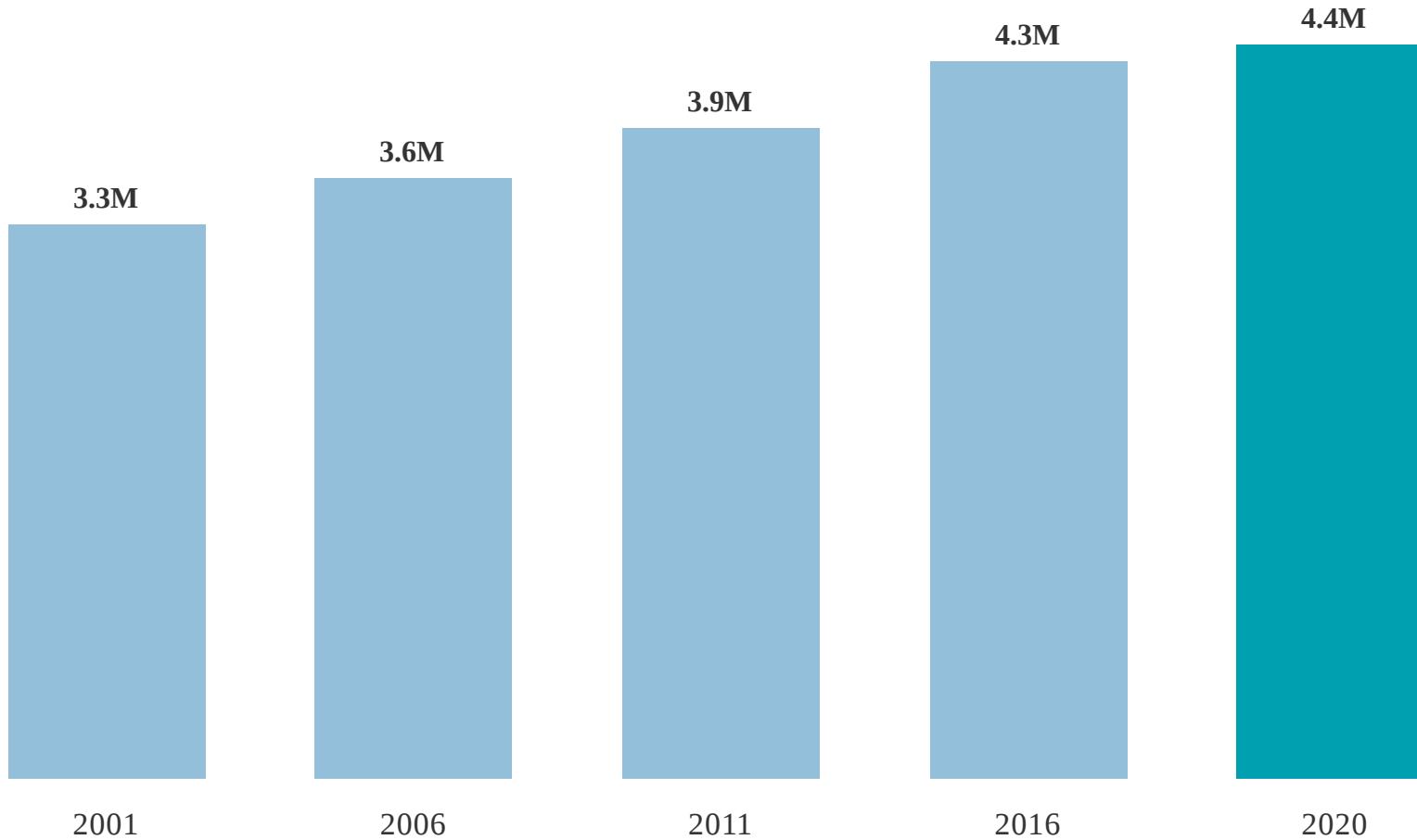
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Thank you!

# Number of physically disable In Japan



THE NUMBER OF  
PHYSICALLY DISABLE:

**4.4M**

The number is  
expected to continue  
to grow in the future

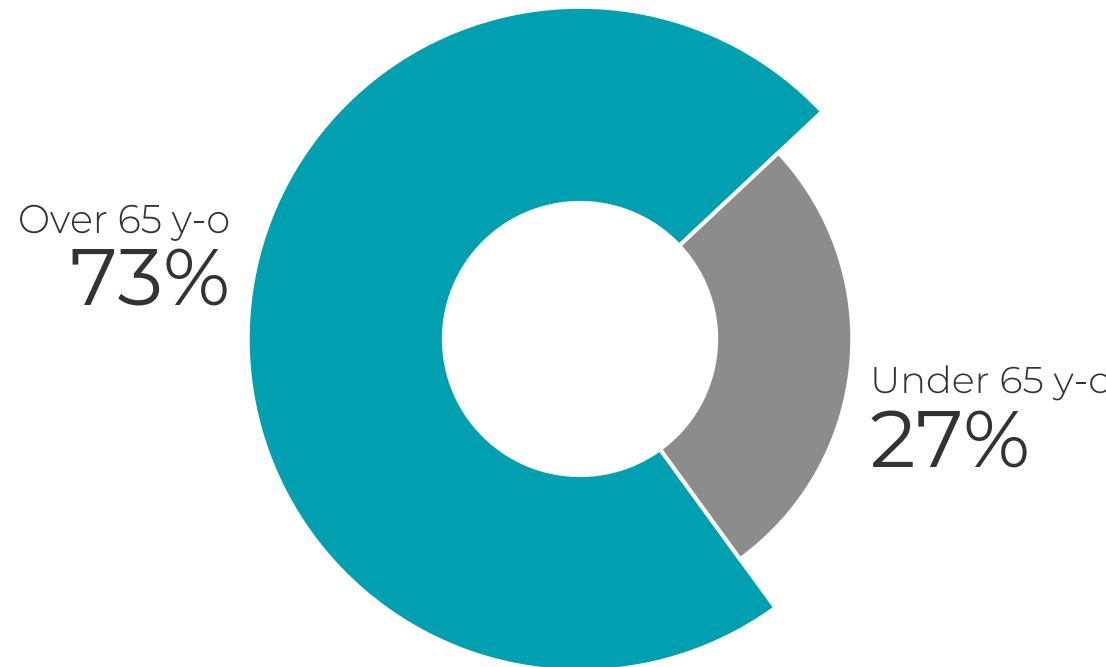
IF THEY COULD TRAVEL...

1.2  
yen

## Calculation:

33M: over 65 years old people \* 0.35: rate of physically disabled in aged people  
\* 50000: average spent in travel in 70s \* 2: assuming to have an attendant

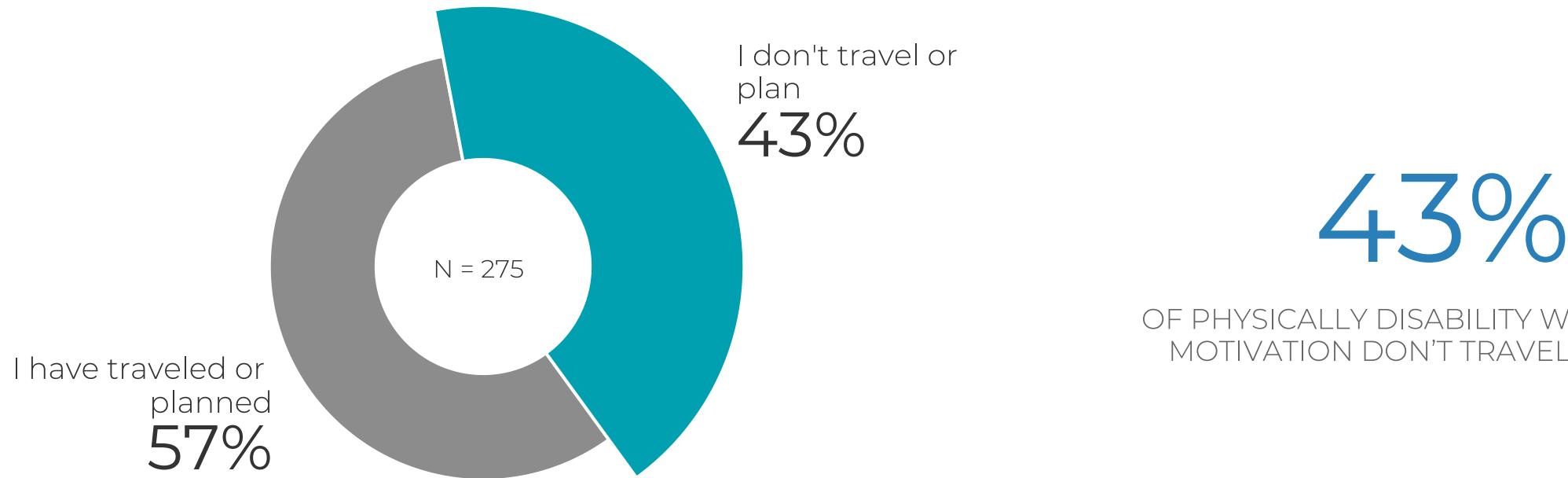
# Age distribution of physically disabled



**73%**

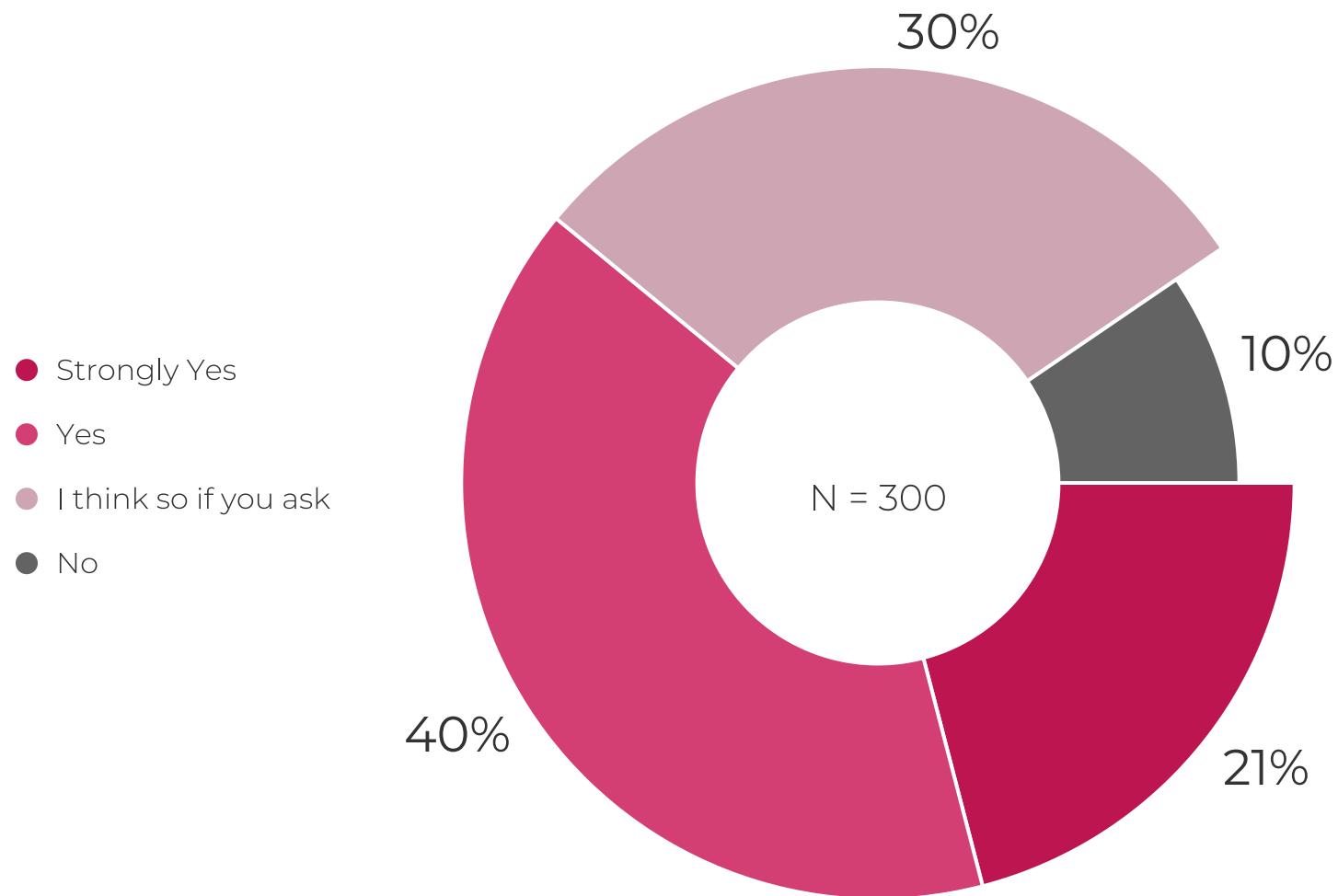
OF PHYSICALLY DISABILITY ARE OVER 65  
YEARS OLD

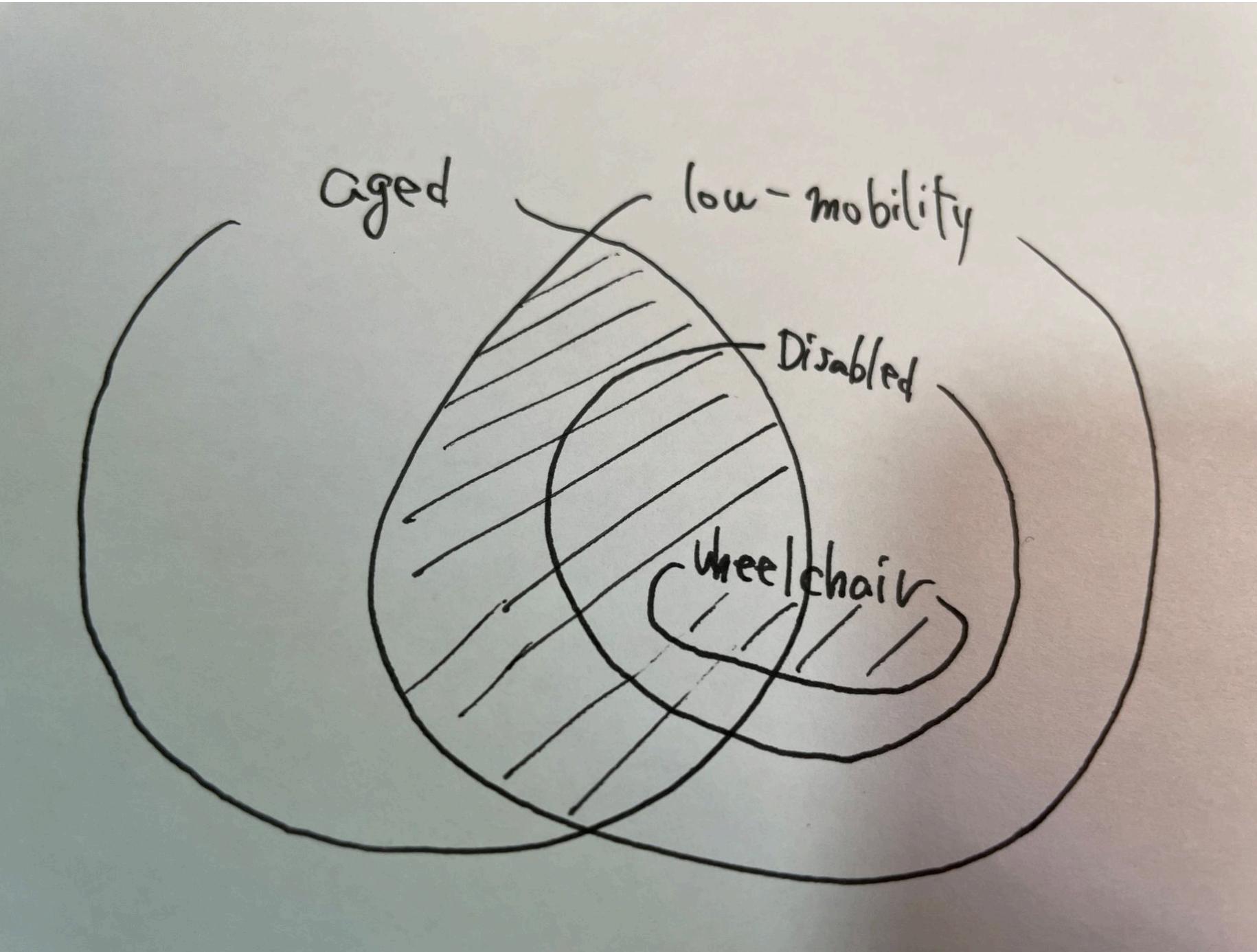
# Have they traveled / planned a trip before?



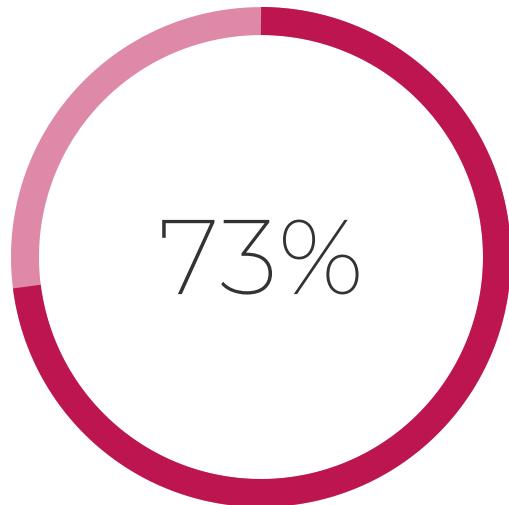
OF PHYSICALLY DISABILITY WITH TRAVEL  
MOTIVATION DON'T TRAVEL OR PLAN

Do you think that the accommodation information provided online or in books is not enough?

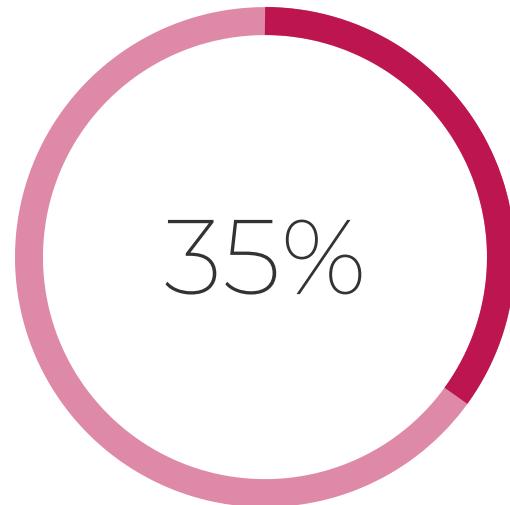




# Statistics



73% of physically  
disabled are 65+ years  
old

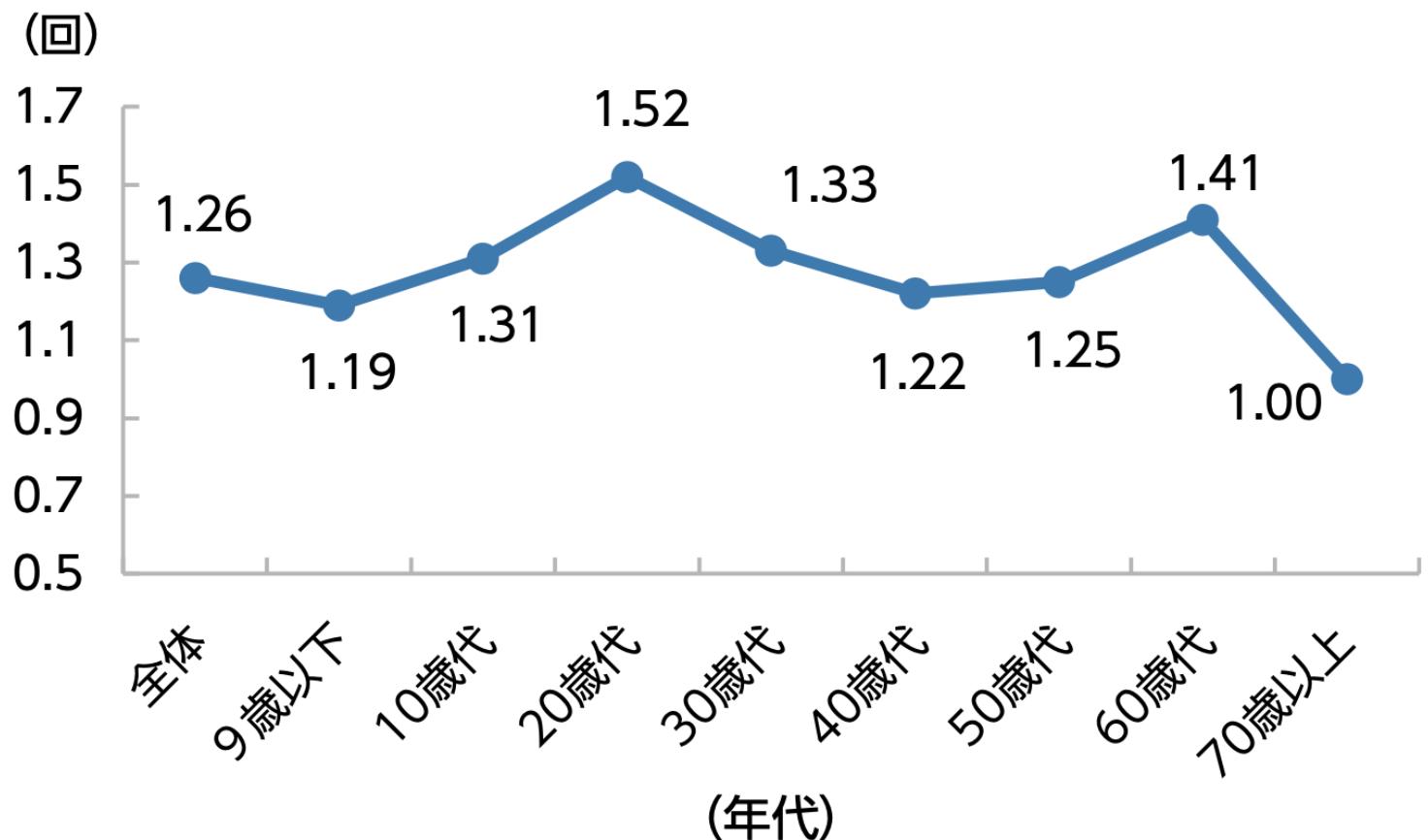


35% of 65+ years old  
people are physically  
disabled

## 図表1 一人当たり年間平均国内宿泊旅行回数

### Plunge in 70s

The average number of annual trips drops sharply in the **70s**



[https://www.fir.co.jp/fs\\_bk/201810/26-29.pdf](https://www.fir.co.jp/fs_bk/201810/26-29.pdf)

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