



2021 Spring

Intern Report

Nozomu Yoshida | TDD

— Proposal —

1 | Market

2 | Persona

3 | User Research

4 | Solution

5 | Usability Test

6 | Competitive Analysis

— About Internship —

7 | What I learned



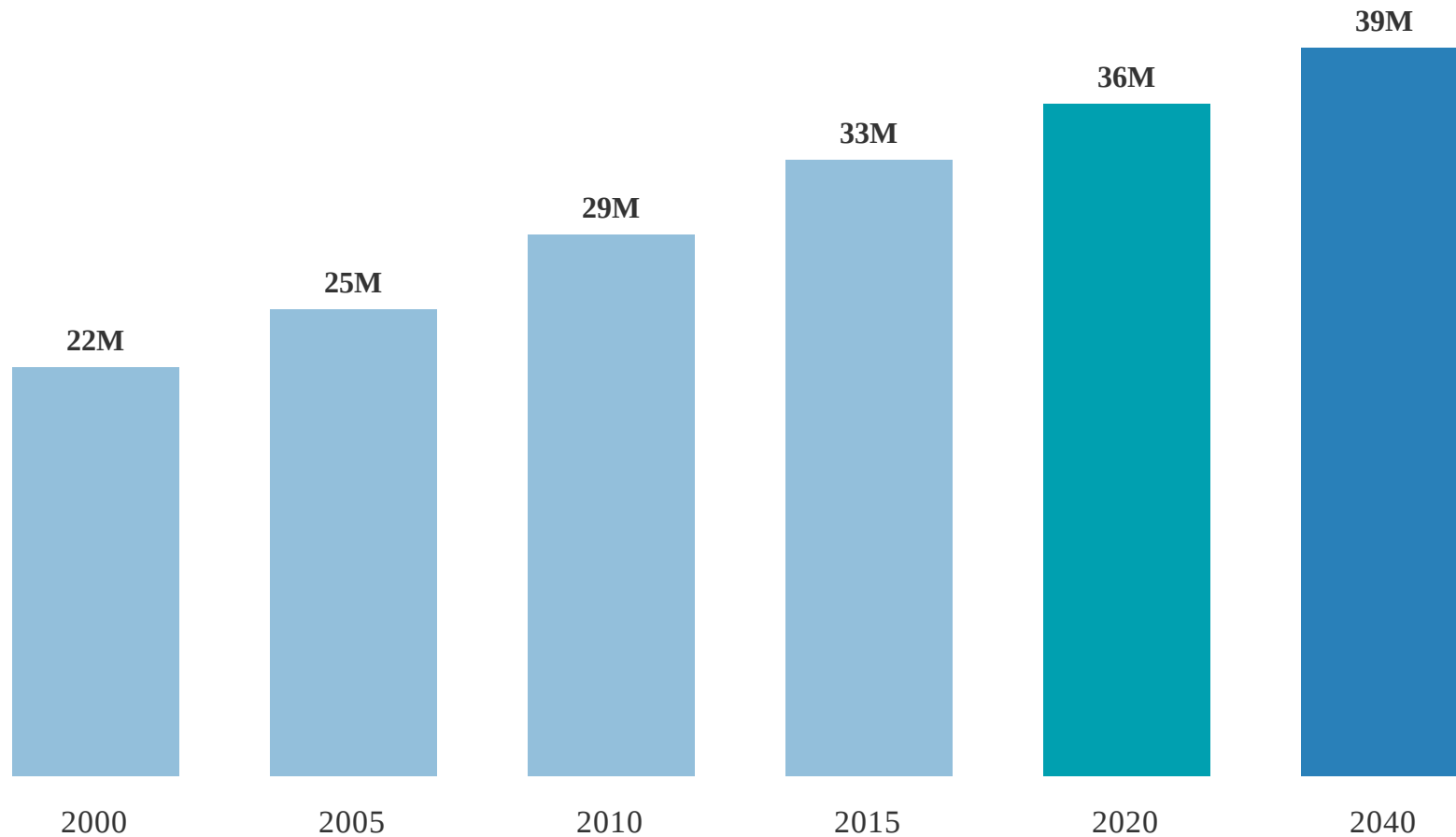
Market

Market

Physically disabled aged people



Number of aged people (65+) In Japan

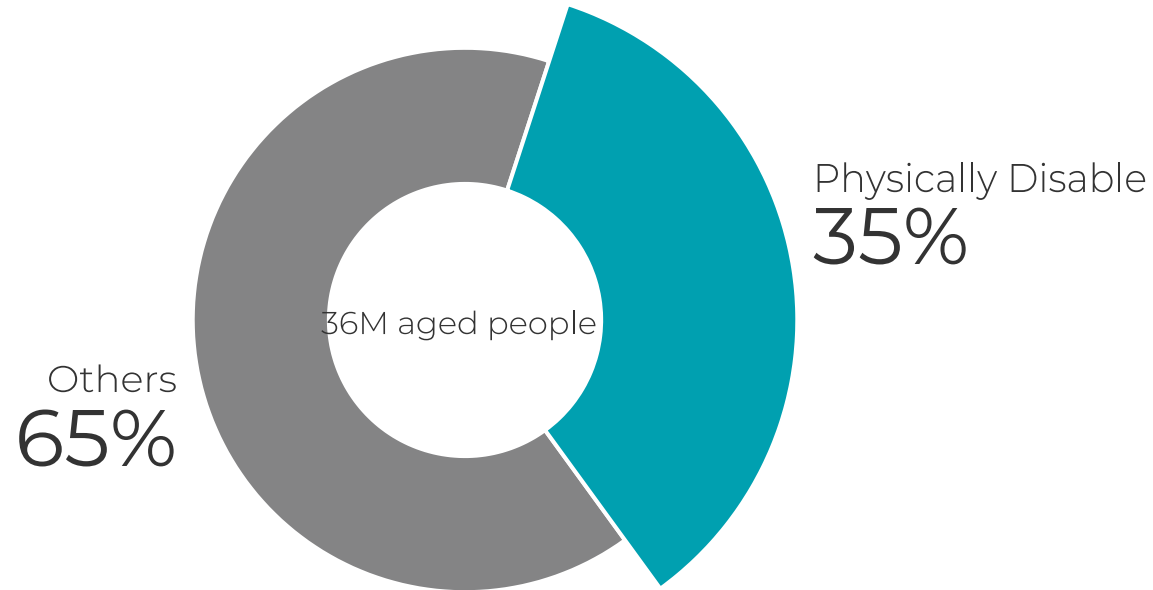


THE NUMBER OF AGED
PEOPLE IN JAPAN

36M People

The number is
expected to continue
to grow in the future

In the 36 M aged people...

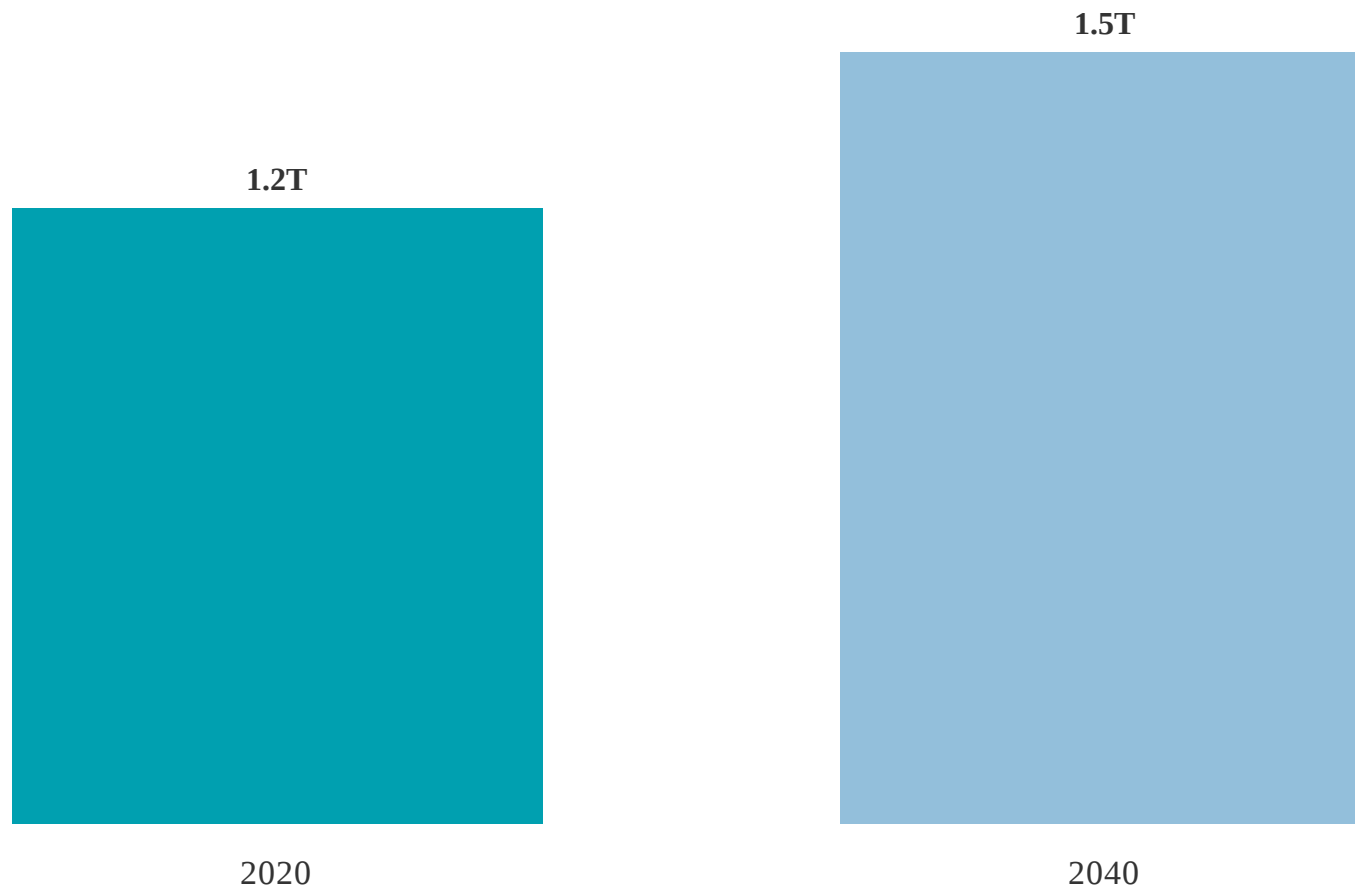


35%

OF AGED PEOPLE ARE PHYSICALLY DISABLE

Equal to 12.6 M people

Market of physically disabled In Japan

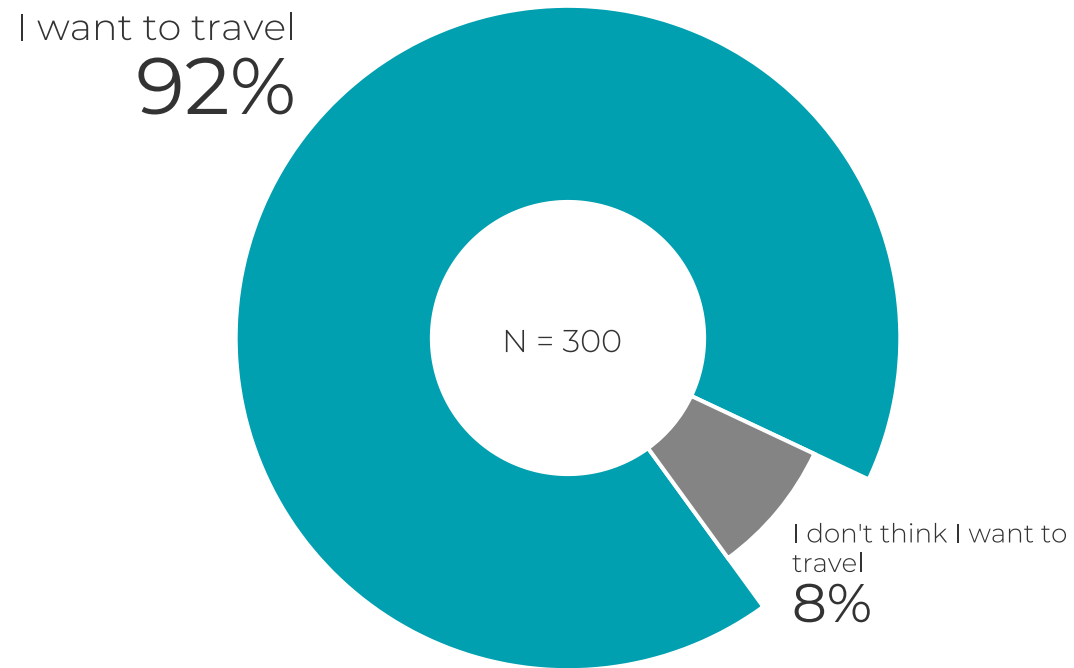


MARKET OF
PHYSICALLY DISABLED
IN JAPAN

1.2T Yen

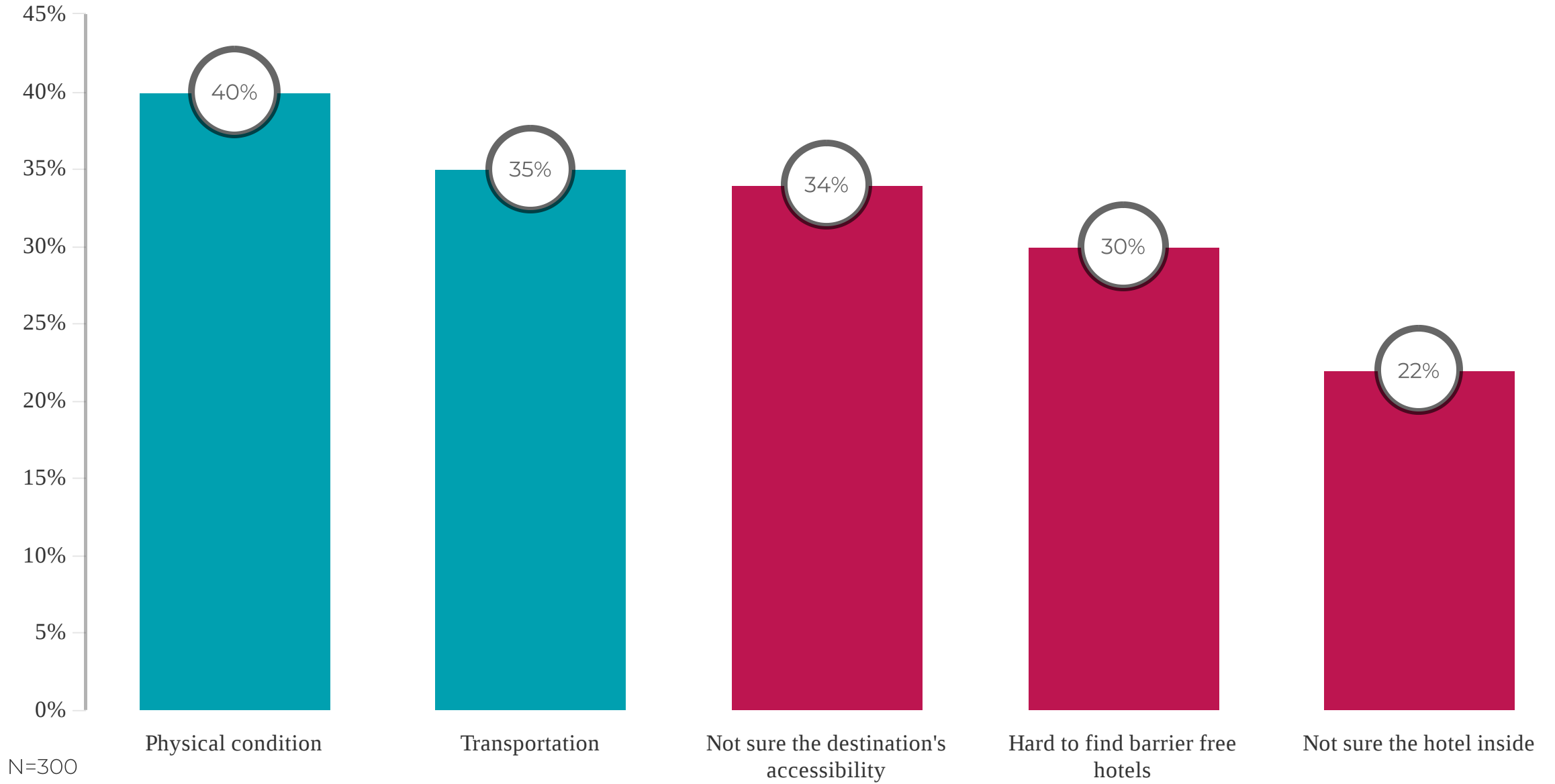
The number is
expected to continue
to grow in the future

Do they want to travel?



92%
OF PHYSICALLY DISABILITY
THINK THEY WANT TO TRAVEL

What are the barriers to travel for physically disabled?



N=300

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

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

Aged low-mobility people

Aged people

高齢者 徒歩
が困難な人

物集が大変

no handcart
手押し車

house-to(otel) pick-up
がある

電車へのアクセス
(車椅子)

No access to Web

only
access by phone call

Lack of Facility

浴室に手すりがない

都庁→温泉までの道

Facility 施設、
設備

Meal Place

仮の食事処

Small step in the bath
温泉の段差

手すりが無い

toilet

Lack of Information

Information

lack of information

hotel
予約 → 電話
予約 → 詳細

複数手段で確認

1つのOTAで確認
できない

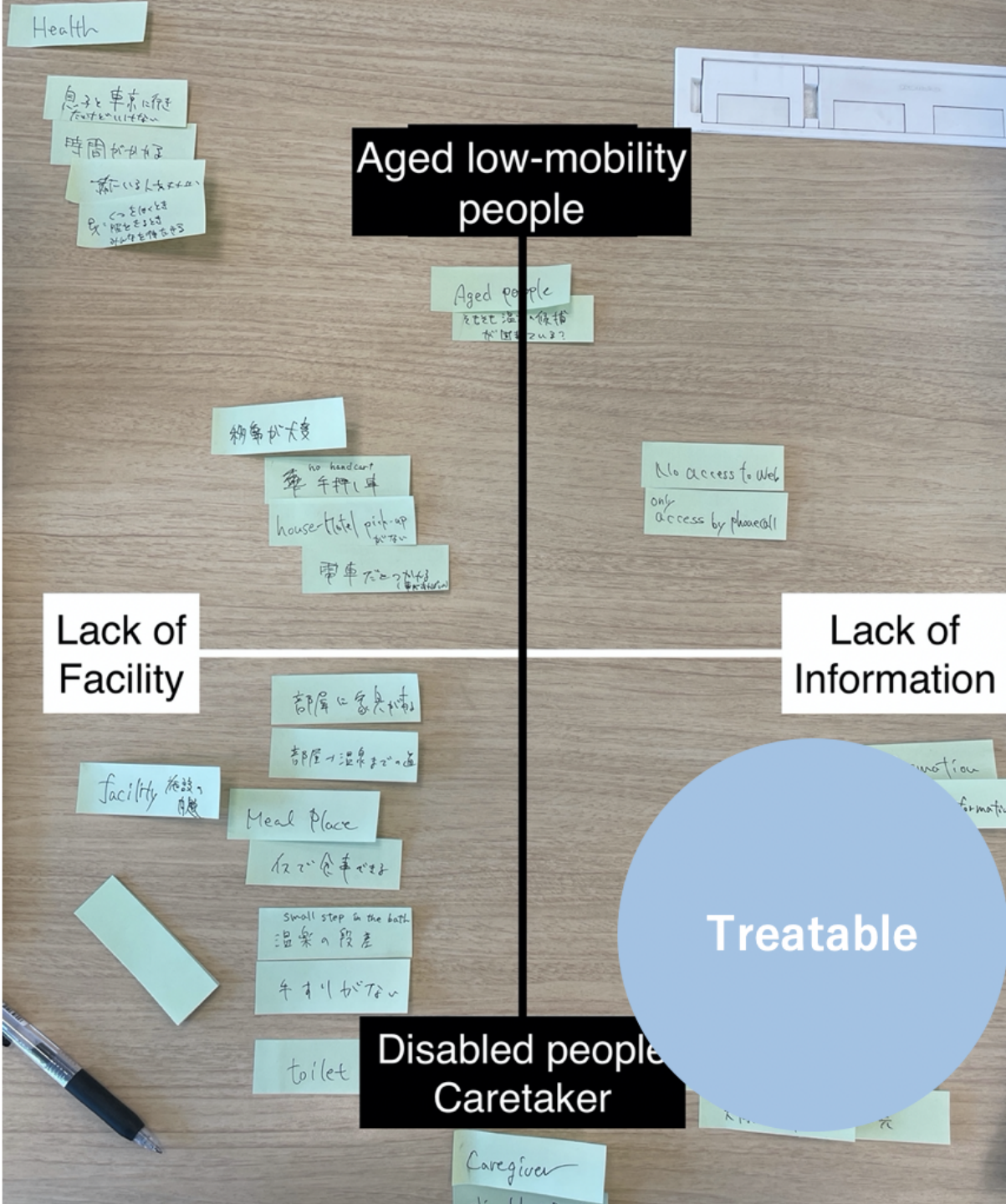
Ally detail into
9不足

実際96+
写真

Disabled people Caretaker

Caregiver

disabled people



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
\$120
\$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
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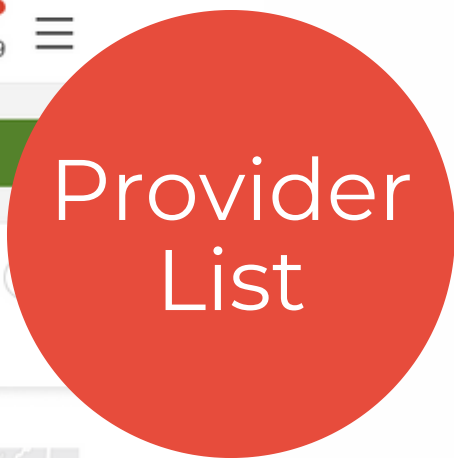
-75% Today
\$120
\$176.66~
Per Room
2 Guests 1 Night



★★★★★ The Millennials Shibuya 3.54/5 (Reviews 120)

Free cancellation Until 2019-12-13 19:00

\$102.12~
Per Room



Shibuya

9/24/2019

9/25/2019

2 guests, 1 room

Search

Filter

Filter

\$0 - \$250

Swimming pool + 1 more

4 - 5 stars

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Pay at the hotel

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\$102.12~
Per Room



Provider List

✕ Sort & filter

Sort by

Recommended ▼

Price Range

The average price per room is \$120



\$0 - \$250+

Suggested filters

- Swimming pool
- Breakfast included

Barrier Free

- Barrier free

Show more

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



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



Choose your room

Check in: 9/24/2019

Check out: 9/25/2019

Guests: 2 guests, 1 room



Filter

2 Beds

Breakfast

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
24m²
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

~~\$526.76~~

\$176.66
per room

Reserve

✓ Free cancellation until

04/22

🎁 Earn 300 points (JPN)

🍳 Breakfast 🕒 Early Check-In ✓ Late CheckOut

Get 35% off coupon

Lorem 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 (JPN)

🍳 Breakfast 🕒 Early Check-In ✓ Late CheckOut

✓ You've successfully claimed this coupon!

Lorem 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

Hotel
Information 2

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 finish reservation in hotel info page
- Both 2 testers 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

High Inventory of accessible hotels

If implemented...

Rakuten
Travel

Low detail on
accessibility

High detail on
accessibility


*Let the client's doll travel


*Wheelchair specialized OTA


Kokofuri Gunma
*Disabled people's hotel review website

Low inventory of accessible hotels



What I learned

Daily Report

Daily report

一次面接

カジュアルに色々話しく話せた

一次だけで来てくださ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行かせそうな職種。

とりあえず受かった

書類提出した

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Teriさんのミーティング

インターン前日だった。Viberでのやりとりが基本だった。セットアップで手探りしてしま
口ダクトが、どうすればより多くの人に、より効果的に使ってもらえるようにできるのかを

3/1

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

3/3

- User interview
 - Ondaipo
 - Fujita-san
 - Miyo-chan
- Join meeting
 - Everest 20M sign
 - Everest Status hearing

3/5

- Data E: Box of My Folder IC
- Analysisを見つける
- + Tiffany にも分析してもらう
- + その前にミーティングの手前をする
 - Analytics meeting: they are taking definition: reservation_time and cancelation_time
 - there are two bugs: PRD bug, technical bug
 - Julien 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
 - Specialty on computer vision

3/8

- Observation report by ppt with Tiffany ppt
 - survey data3
 - observation
- Insights on Confluence with template
- Improve experience from ping to event
- PDMs meeting for catch-up with Teri-san
 - Everest: status hearing for the DWH/BI related
 - Status confirmation
 - Data catalog の内容 (サンプルデータも欲しい)

3/10 Wed

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

3/12

- Find insights
 - Analytics NextStage Weekly meeting
 - PDM Meeting
- +Update from Kumagai-san, ITC lab on 3/12. OTA means Online Travel Agency? RC means for what? Sike RC 2.0!
- +Web Design Rule that proposing installing the common rules, which saved 24% per month

leaving 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=3UCDU0BLA58>

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 appeared 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 the 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

- ▶ 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

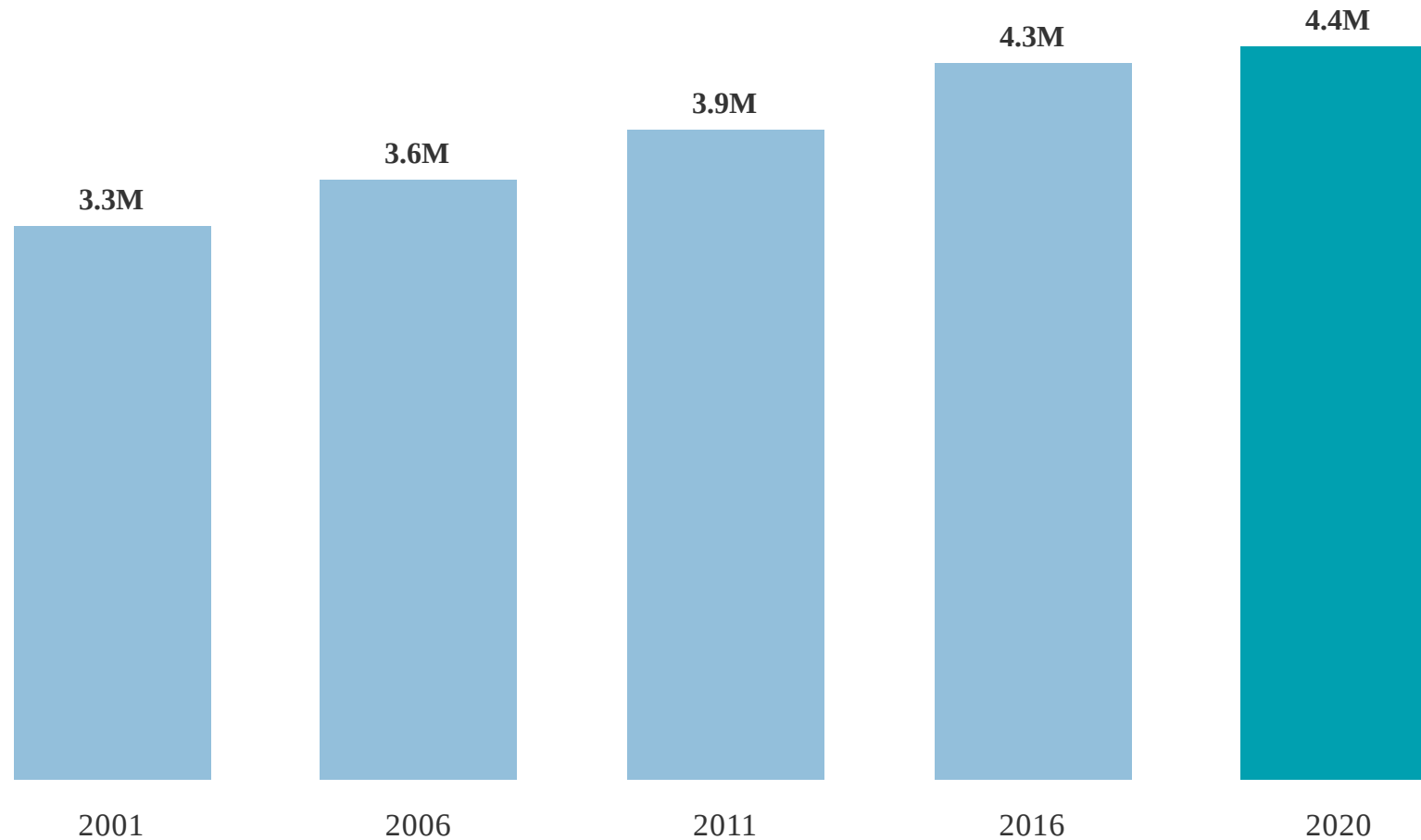
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- ① Join the meetings and learn how PDMs work
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- ④ Connect PDMs and other Rakuten members



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:

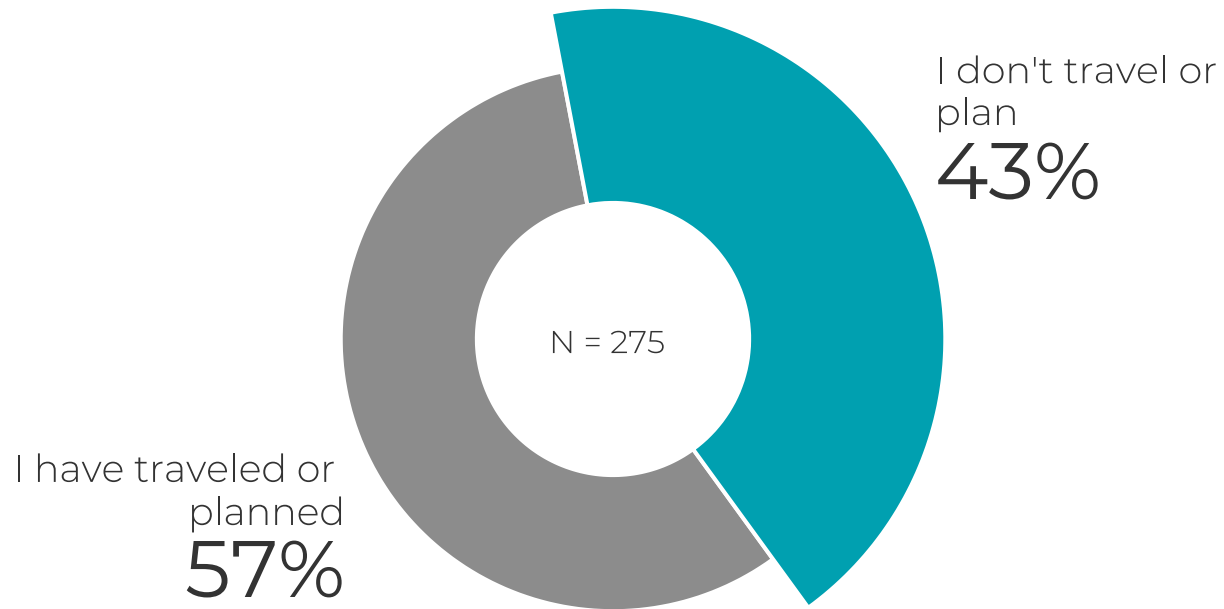
33M: over 65 years old people * 0.35: rate of physically disabled in aged people
* 50000: average spent in travel in 70s * 2: assuming to have an attendant

Age distribution of physically disabled



73%
OF PHYSICALLY DISABILITY ARE OVER 65
YEARS OLD

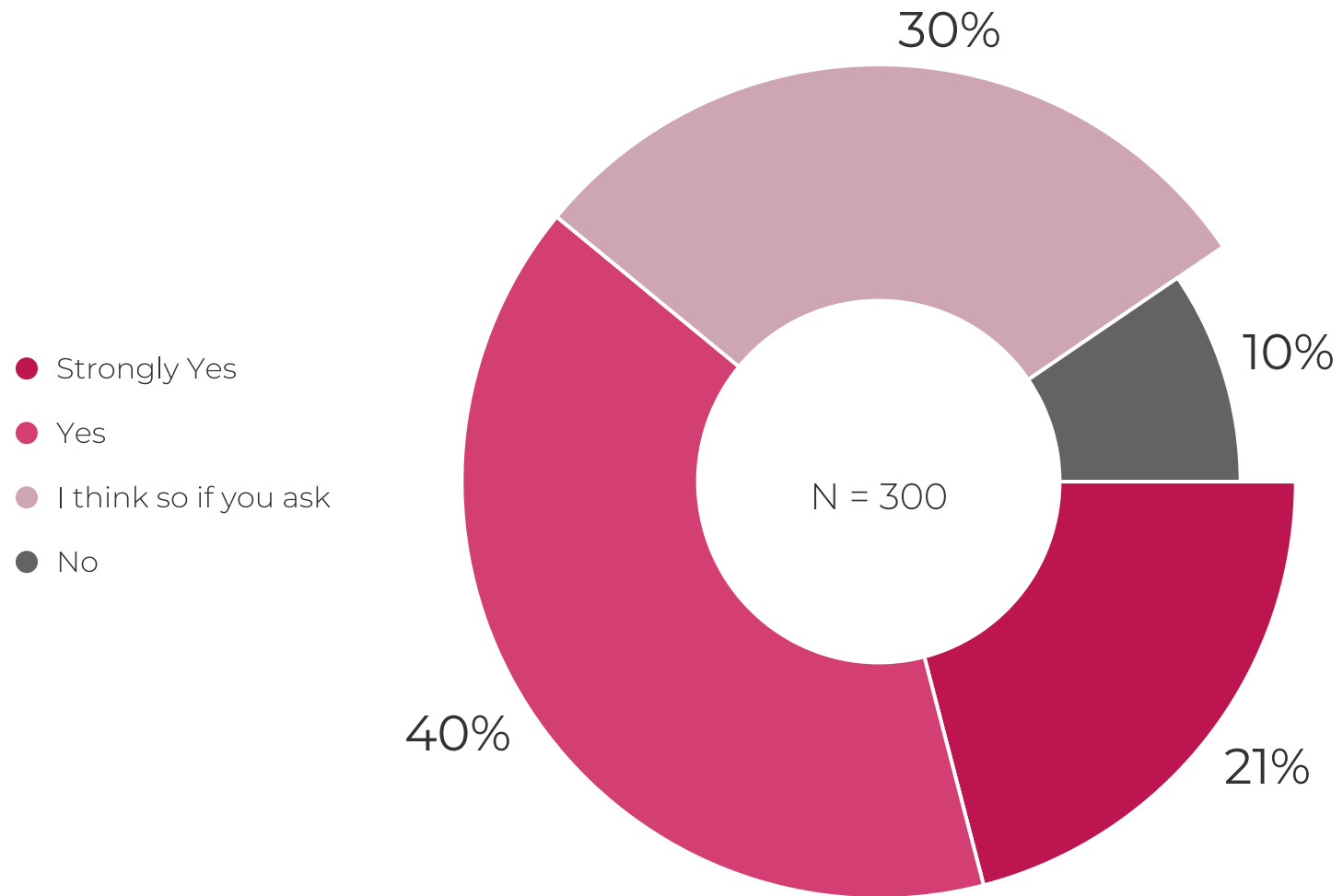
Have they traveled / planned a trip before?

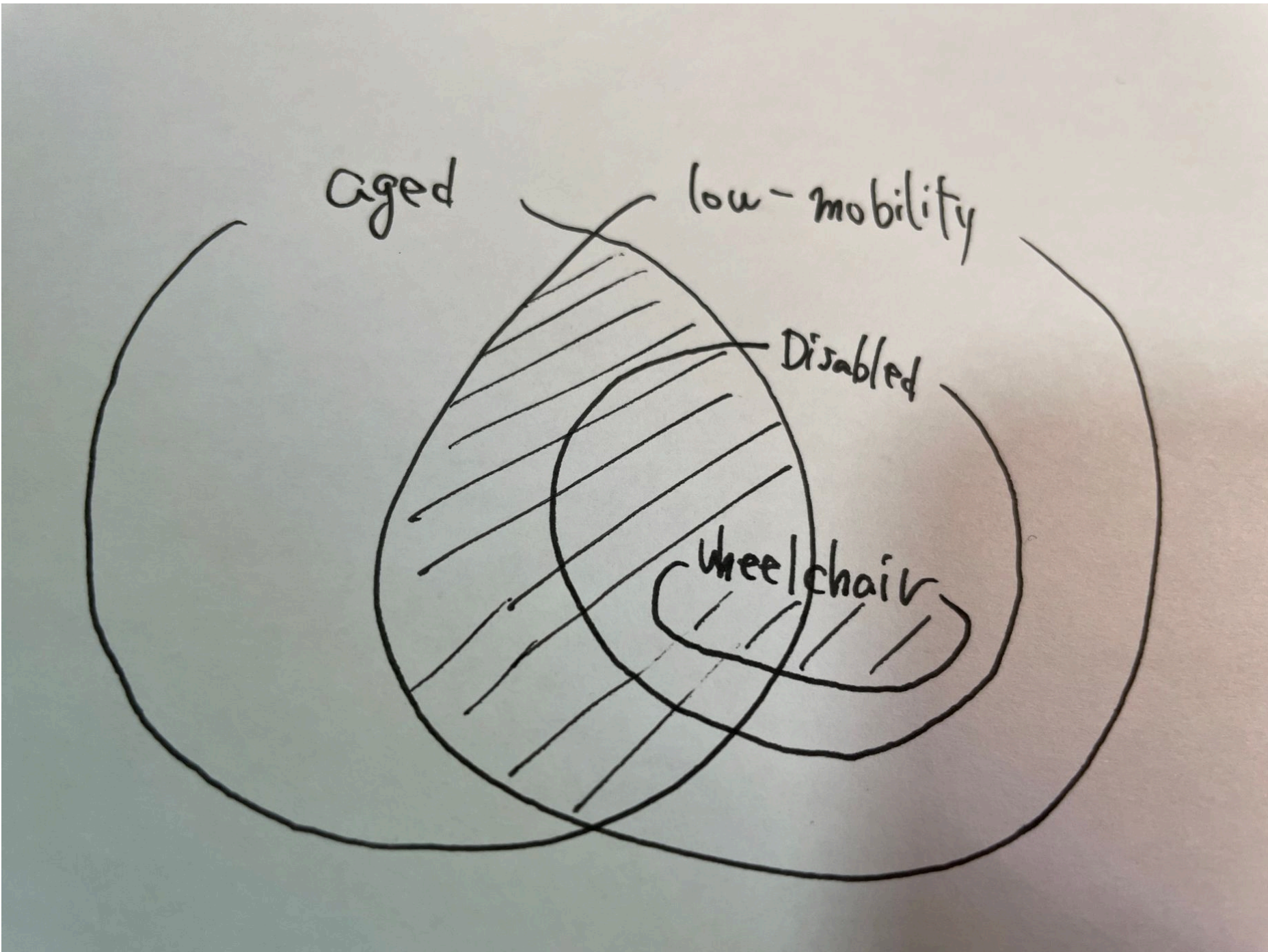


43%

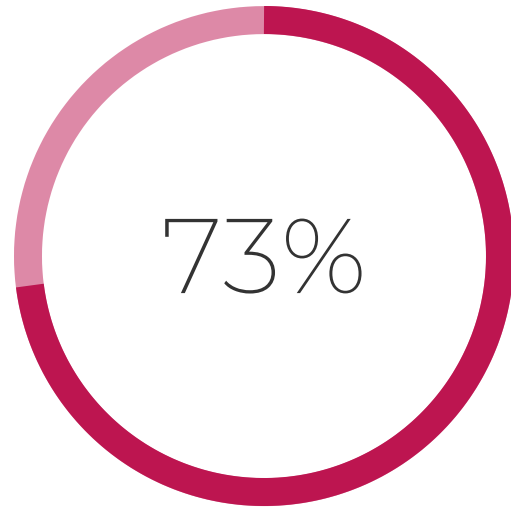
OF PHYSICALLY DISABILITY WITH TRAVEL
MOTIVATION DON'T TRAVEL OR PLAN

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

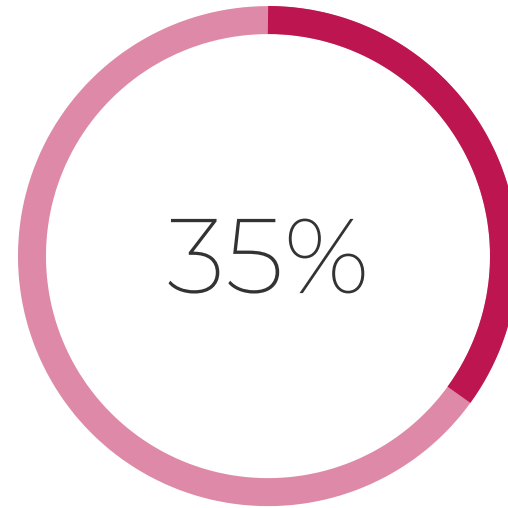




Statistics



73% of physically
disabled are 65+ years
old

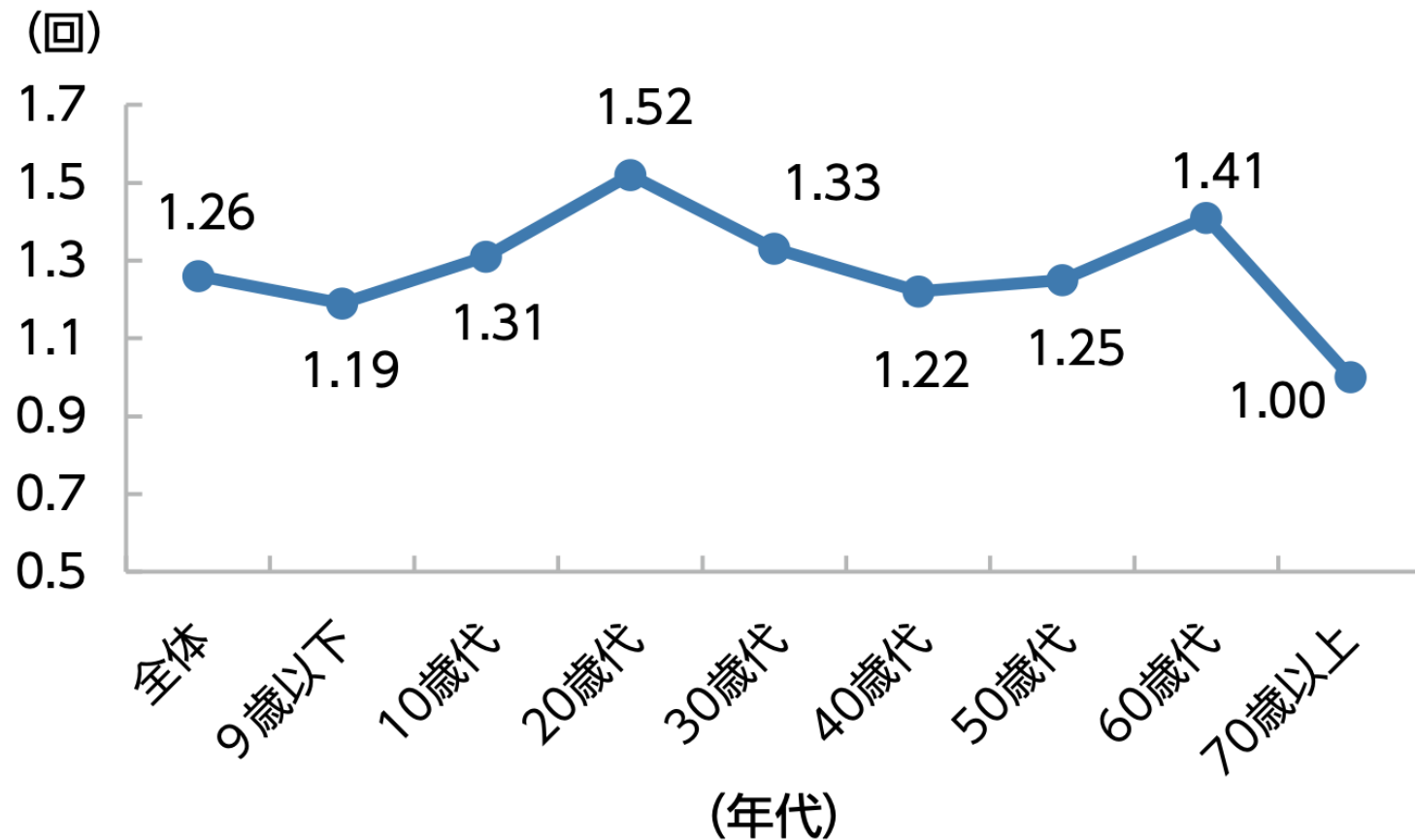


35% of 65+ years old
people are physically
disabled

Plunge in 70s

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

図表1 一人当たり年間平均国内宿泊旅行回数



https://www.fir.co.jp/fs_bk/201810/26-29.pdf