

Decision influence modeling:

Achieve more reliable forecasts for your pharma or consumer health product

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SKIM

decision behavior experts

Shifting healthcare and consumer health decision behavior

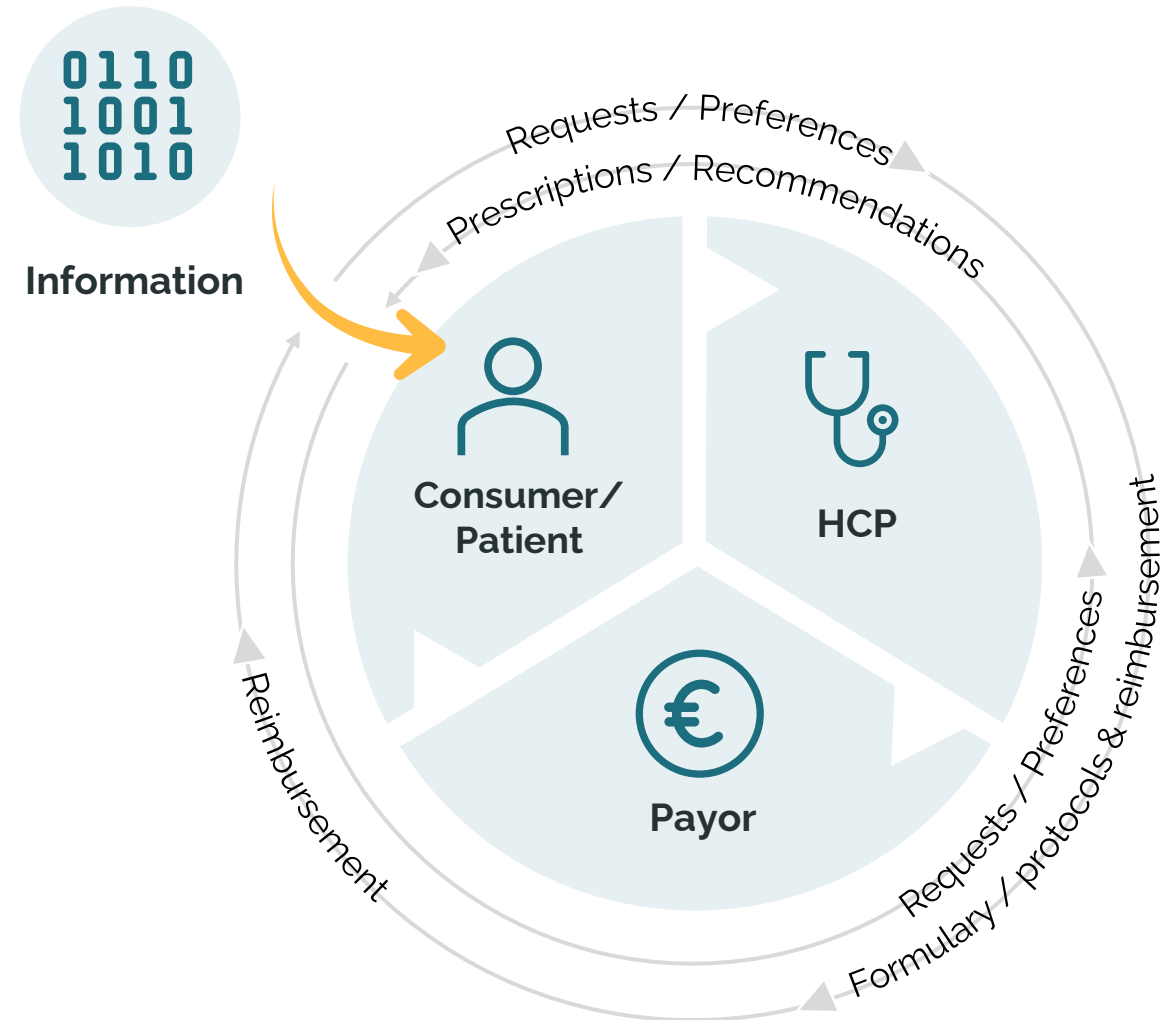
Increased willingness to self-monitor conditions or even receive treatments at home -> **Empowered** patient

Rise in mobile health, new technology, and online platforms -> **Empowered** consumer

Decision-making is no longer a one-way street...

Greater consumer / patient empowerment:

- A less effective HCP recommendation
- Shifts in decision-making power



What you'll learn today

1

Decision-behavior considerations for achieving more realistic product forecasting

2

A **data-fusion analytics** approach for forecasting which models decision influence parameters

3

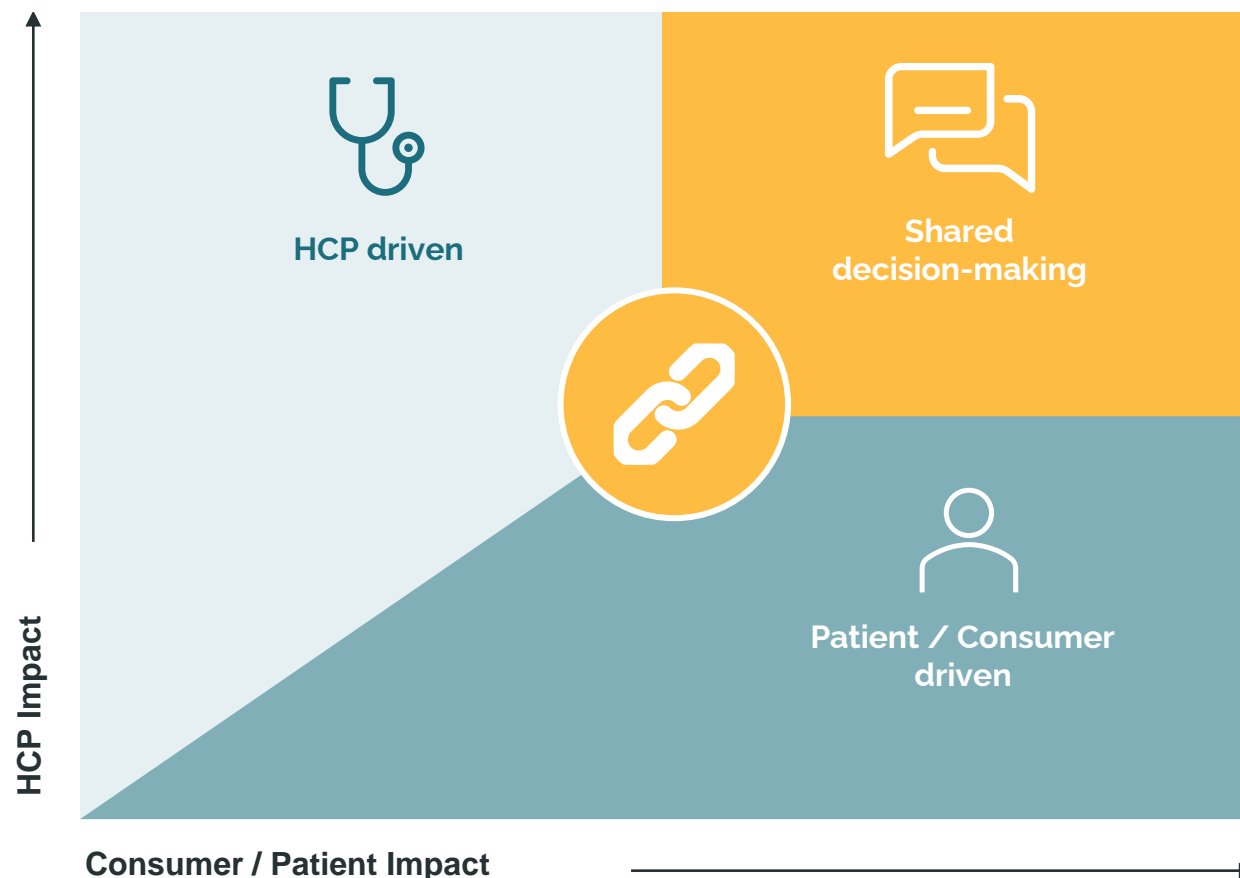
Case study on the approach and benefits of integrating multiple perspectives in product forecasting

Treatment decisions often rely on multiple stakeholders

- **OTC treatments:**
Consumer / patient driven
- **Oncology treatments:**
Shared-decision
- **Acute medicine treatment:**
HCP driven

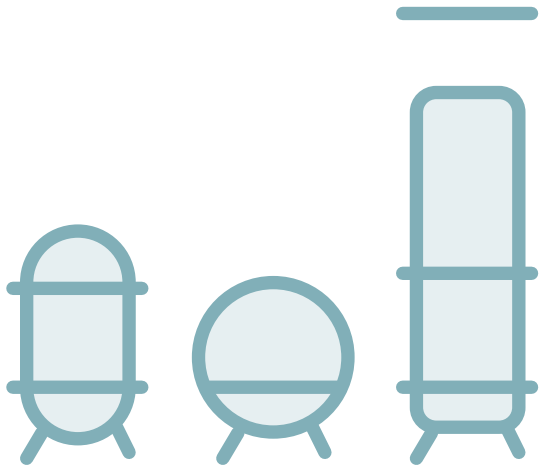
Improve accuracy of product forecasts by connecting both perspectives

Decision Influence Matrix



Selecting the best analytics approach

From single perspectives to multiple data sources



Most companies
are here

Single source data

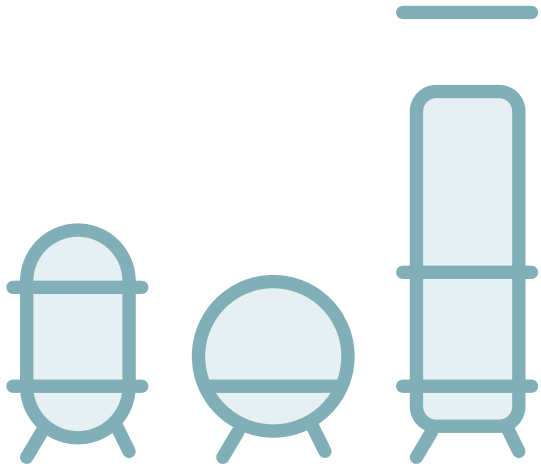
Consumer **or** patient **or** HCP

Triangulation

HCP + Patient

Consumer + HCP

From single perspectives to multiple data sources



What if
patient prefers treatment A
and doctor prefers B?

...Then we need to understand
how they **interact** to influence the
final decision!

Single source data

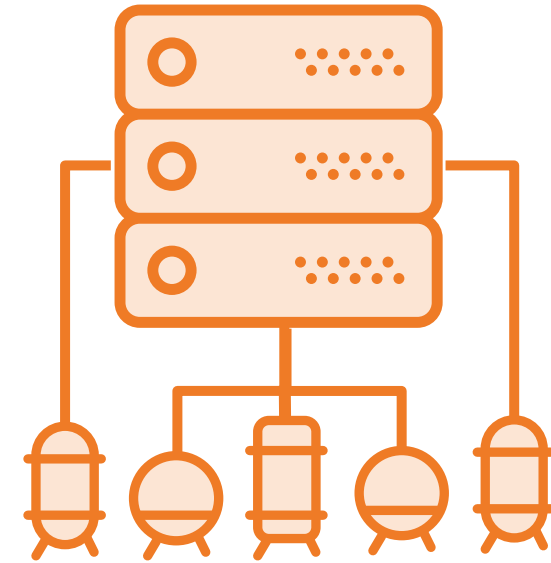
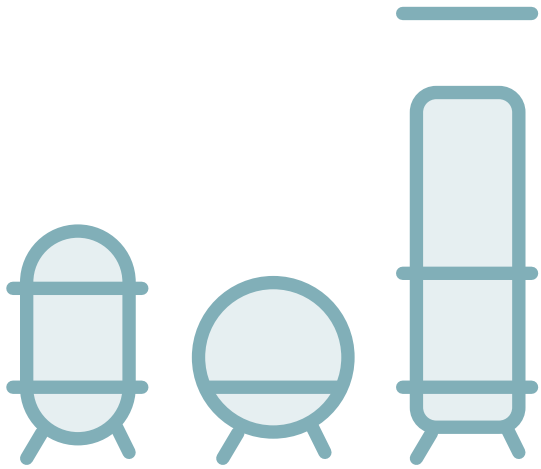
Consumer **or** patient **or** HCP

Triangulation

HCP + Patient

Consumer + HCP

Shift from single view to holistic view



Single source data

Consumer or patient or HCP

Triangulation

HCP + Patient

Consumer + HCP

Data integration

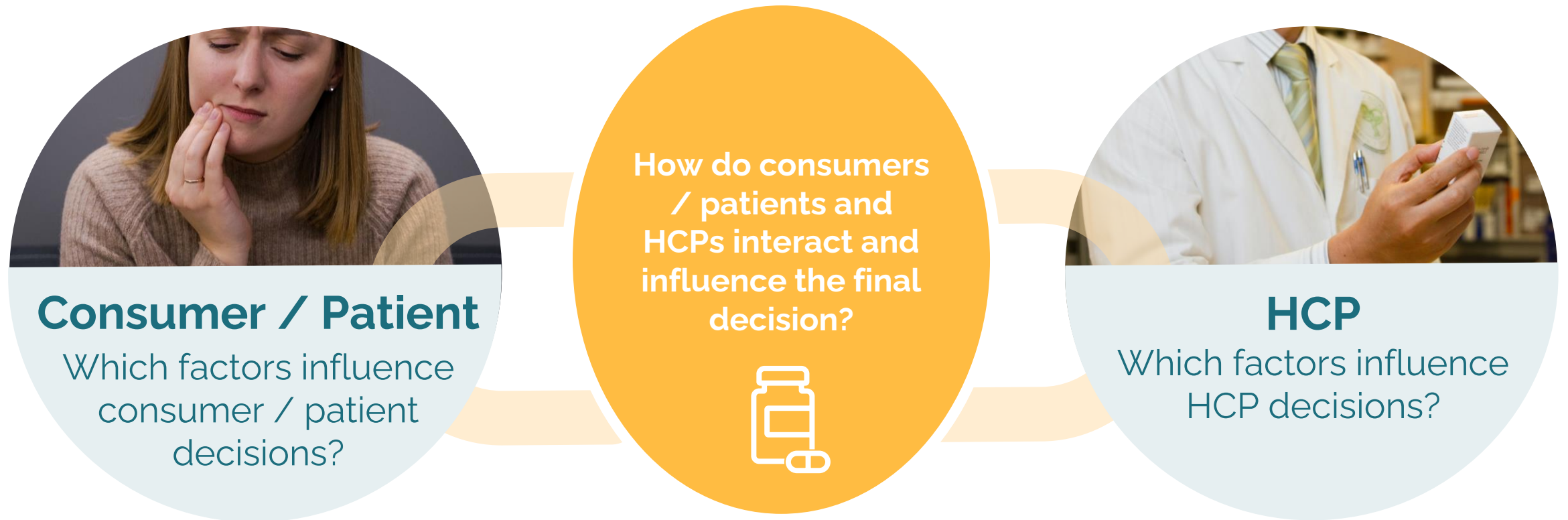
Automation

Realistic and holistic view

Multiple perspectives

Consider a data-fusion analytics approach

Shift from triangulation to integration of consumer/patient & HCP data



Integration requires changing the research set up

Shift from triangulation to integration of consumer/patient & HCP data

Consumer/Patients



Awareness & Experience
Beliefs & Values
Willingness to pay
Own preference

HCPs



Experience
Beliefs & Values
Own preference

Interaction

Adjusted preference

Adjusted preference

Integration requires changing the research set up

Shift from triangulation to integration of consumer/patient & HCP data

Consumer/Patients



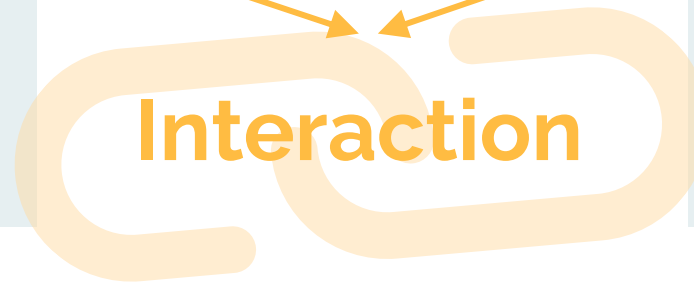
Awareness & Experience
Beliefs & Values
Willingness to pay
Own preference



HCPs



Experience
Beliefs & Values
Own preference



Previous dyadic models had some drawbacks

Limitations

Solely based on stakeholder perceptions and ignored other aspects (e.g. product characteristics)



Dyadic approach resulted in costly and more difficult fieldwork



Static model assuming a single interaction between HCP and consumer/patient



SKIM Approach: Choice-based Decision Influence Model

Advantages



Attitudinal and value statements to build consumer/patient and HCP profiles combined with product trade-off exercise.



Extended modelling allows for separate and independent surveys



Simulates multiple interactions that mimics decision-making process more realistically

Decision influence model in action



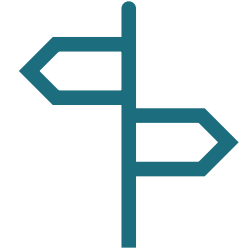
How to increase market share of orthodontic portfolio?



Better understand treatment decision journey for ortho products.



Understand price sensitivity to ortho treatments from consumer vs. HCP perspective



Determine additional drivers and barriers besides price

Understanding the decision interactions between orthodontists and consumers



Consumer

- Demographics
- Beliefs and values
- Experience & awareness
- Own interaction style
- HCP interaction style & recommendation
- Product preference
- Willingness & ability to pay



HCP

- Demographics
- Beliefs and values
- Experience & awareness
- Patient characteristics
- Own interaction style
- Patient interaction style
- Product preference



Our approach

Measure mutual influence between HCPs and Consumer through a quantitative online survey



Mapping of factors

Based on literature and prior client data



Consumer survey

Including demographics, awareness and experience, attitudes and product vs price sensitivity



Crafting of orthodontic patient profiles

Identified a list of common patient profiles based on the consumer survey



HCP survey

Including demographics, awareness and experience, attitudes, product vs price sensitivity and patient profile evaluation

Integrating both sets of data to account for both perspectives in research model

HCP Survey

- Consumers' attitudinal and psychographic data
- Choice model to determine patients' preferences
- Impact of HCP recommendation within choice model



Link

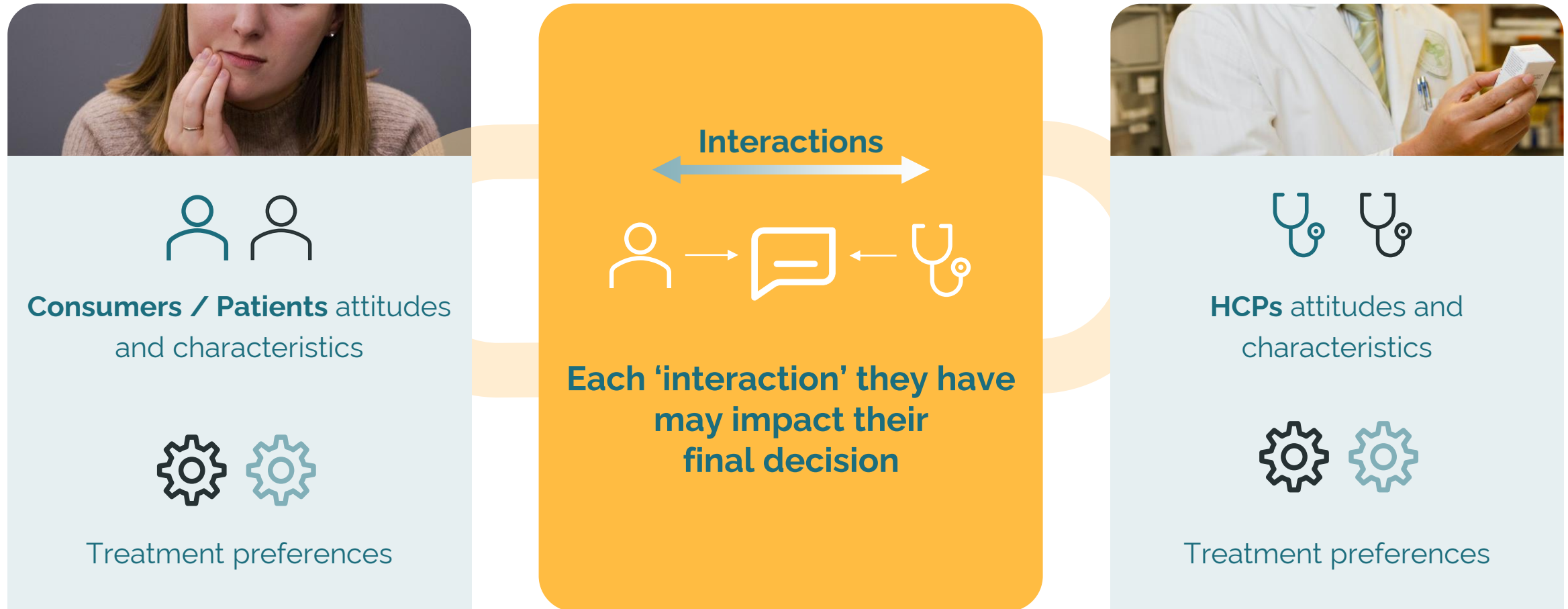
both choice modeling exercises based on mutual impact & characteristics



Consumer Survey

- HCP attitudinal and psychographic data
- Choice model to determine HCP preferences for treatments based on patient profiles
- Impact of consumer request within choice model

To connect both perspectives, we must include an element of interaction



We simulate multiple interactions to connect both perspectives

Consumer/patient
with profile:



Not highly aware of orthodontics and open to advice, but relatively price sensitive



Prefers method A with **70%** chance



Prefers method B with **30%** chance

HCP with profile:



Offers the patient multiple options to choose from, only providing an active recommendation on request

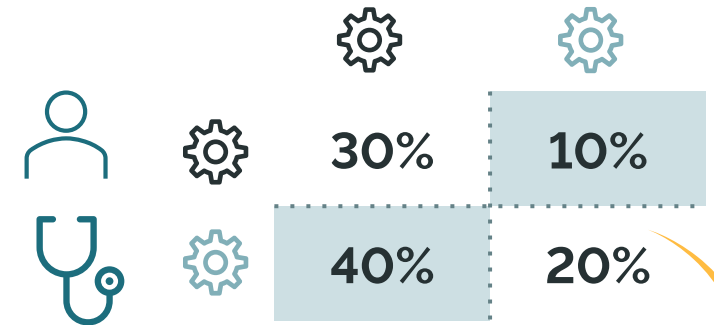


Recommends method A with **40%** chance



Recommends method B with **60%** chance

Interaction matrix

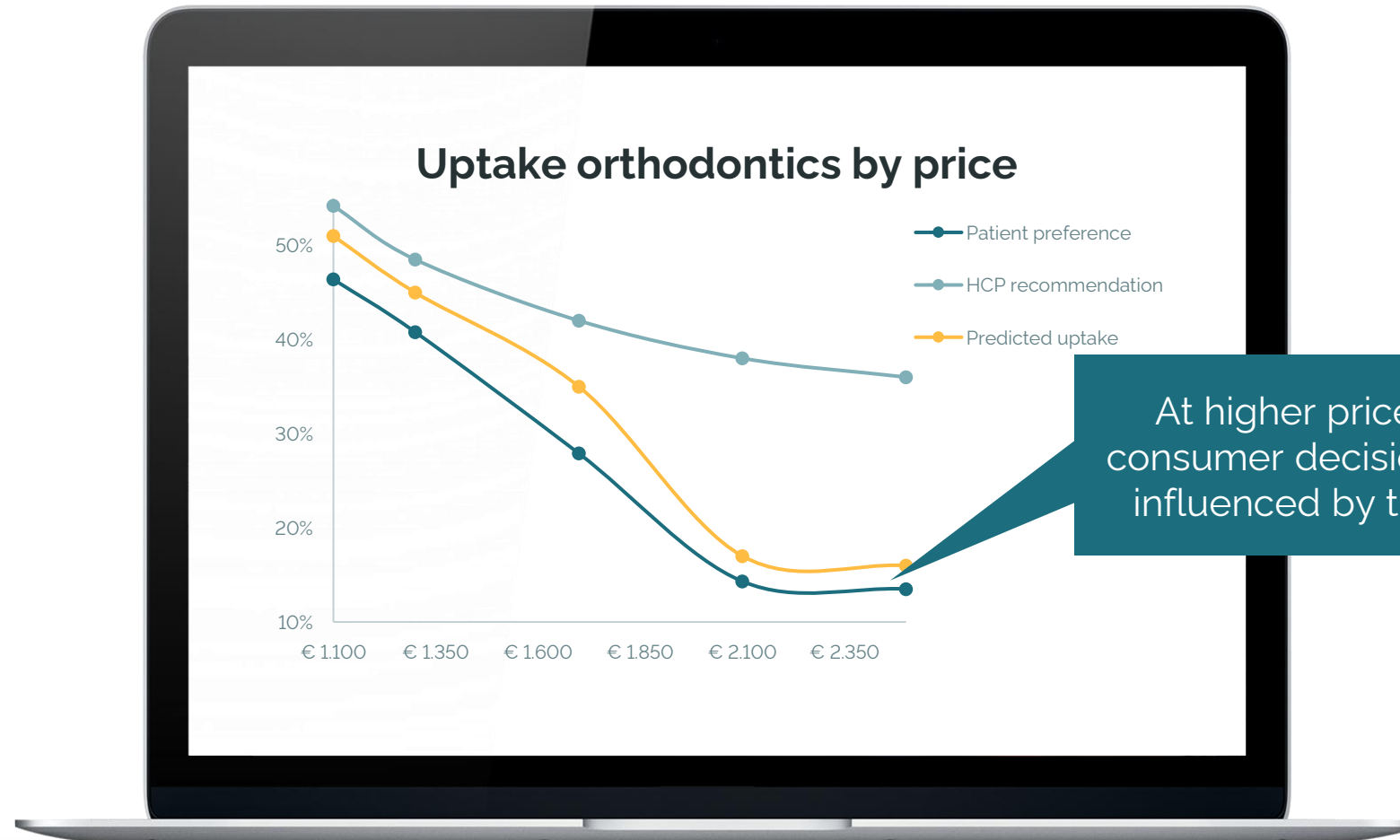


Choice experiment data used to inform final decision in case of opposing views



Result:

More accurate and precise predictions of how multi-stakeholder decisions will impact product uptake



At higher prices, the consumer decision is less influenced by the HCP

What you can expect from a Decision Influence Model

1

Understanding of key **factors impacting** shared decision-making

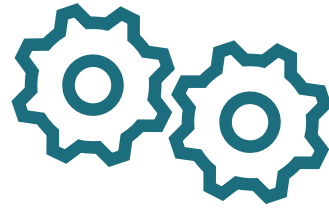
2

Improved forecasting accuracy by better predicting future shared decision-making

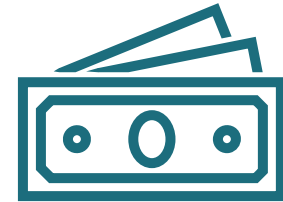
3

Further insights on which **stakeholders** to consider in future research

What's next?



Optimize and test model
by integrating case
studies from different
markets and cultures



Integrate payor impact
into the model

Questions?

And for more SKIMspiration ...

Sign up for a complimentary
15-minute [SKIM Data Fusion
Consultation](#).

*Not sure how to integrate the
different perspectives into your
forecasting? Curious to know
which data integration approach
is best for your organization?
We're happy to help think along!*



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