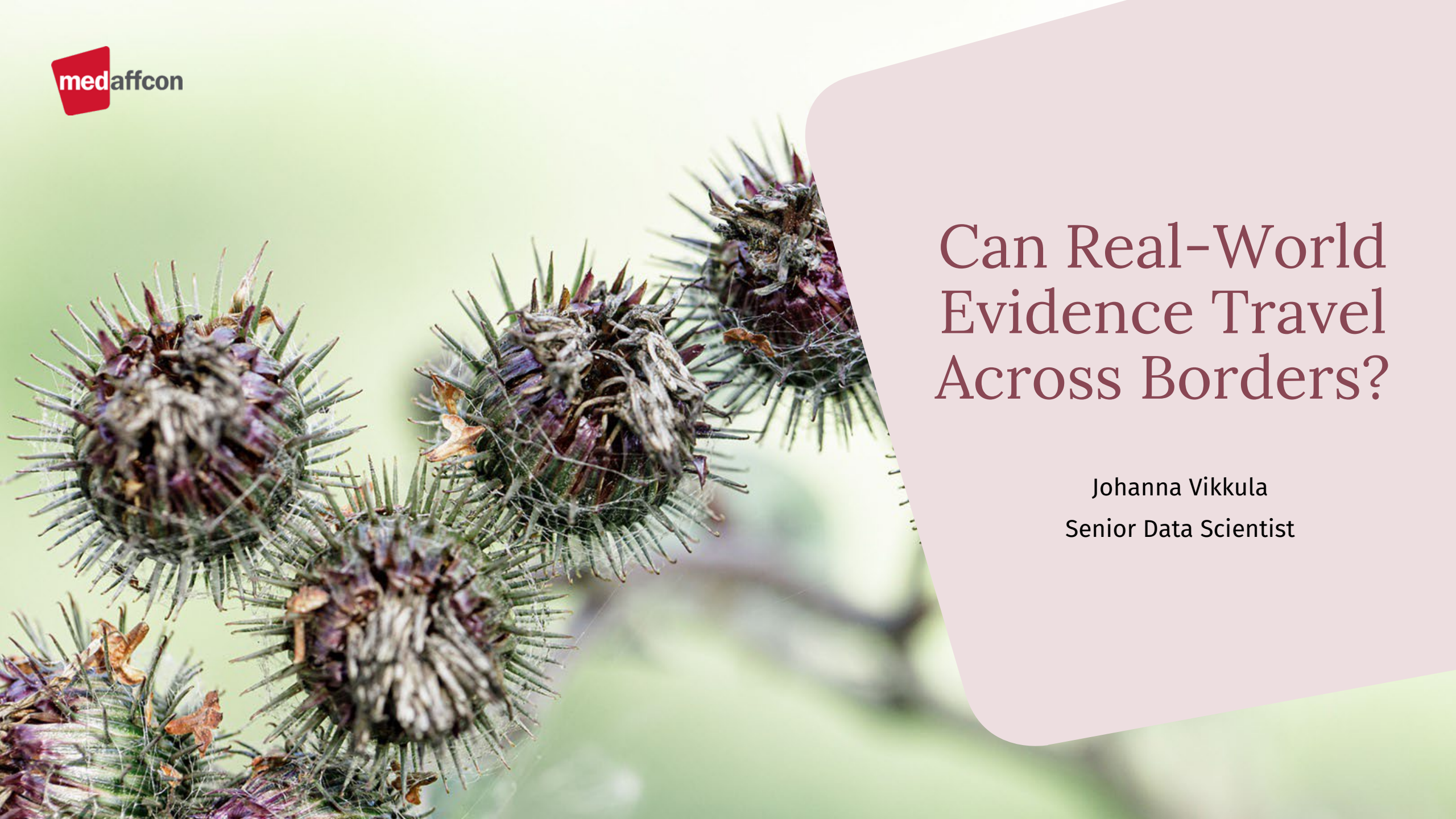


The background of the slide is a close-up photograph of several thistle heads. The thistles have dark purple, spiky heads with many fine, green, needle-like spines radiating from them. The background is a soft, out-of-focus green.

Can Real-World Evidence Travel Across Borders?

Johanna Vikkula
Senior Data Scientist

Can evidence travel?

Relevant evidence may exist elsewhere



Large cancer cohort from the North America



Results on characteristics, treatments and outcomes

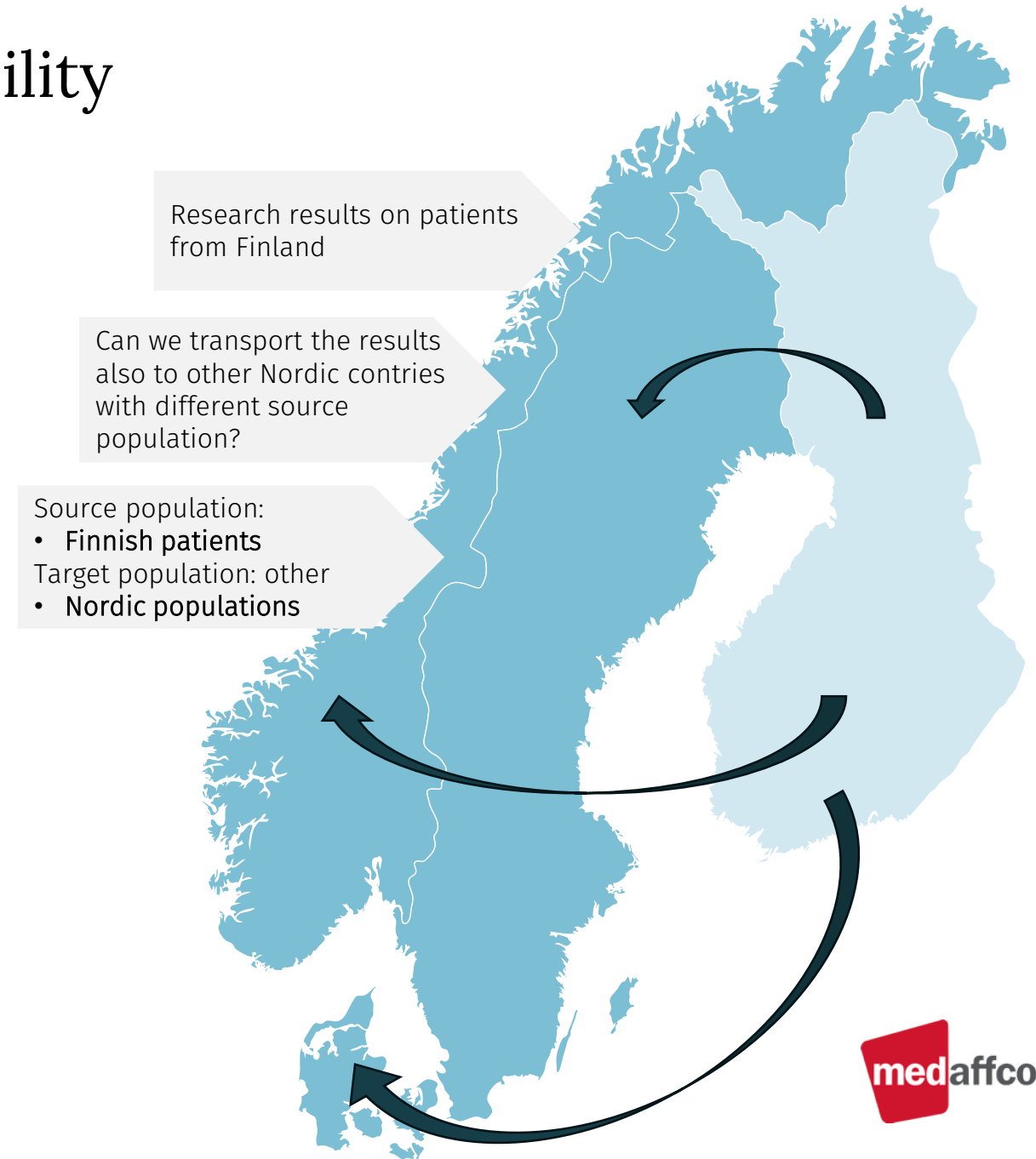
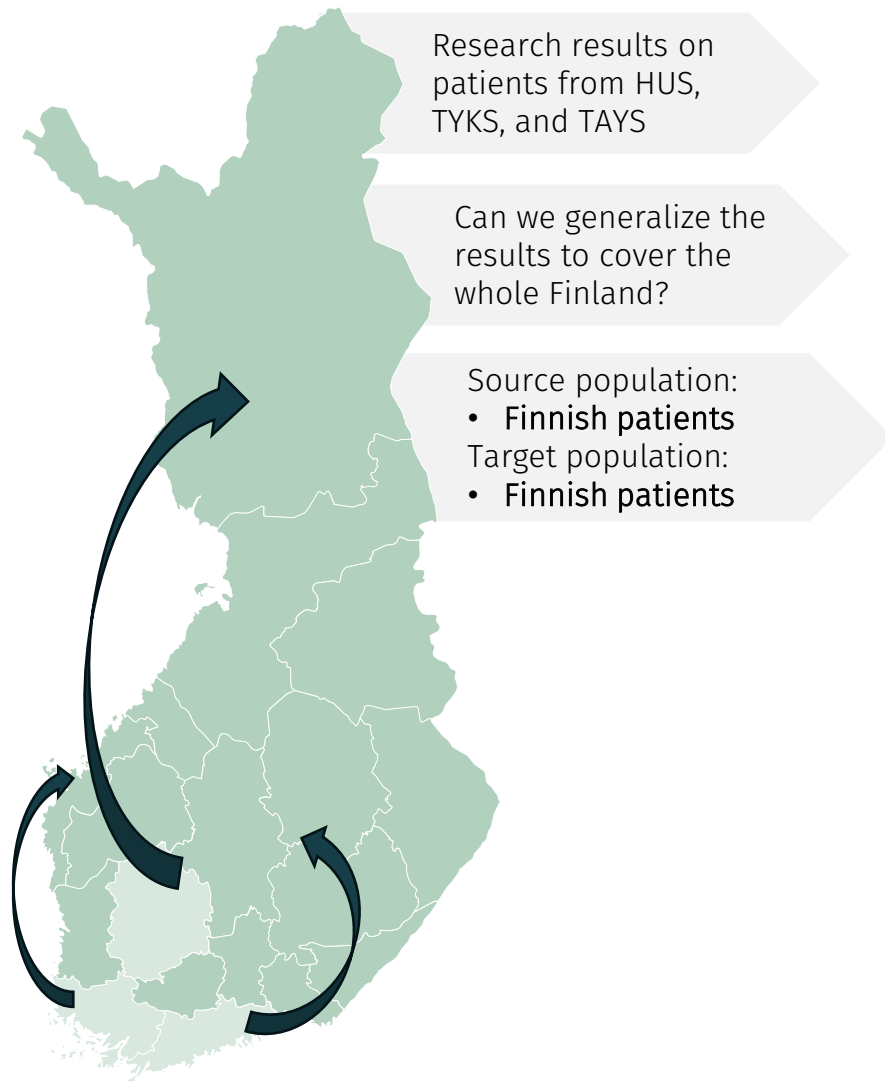


But patients, clinical practice, healthcare systems and data may differ

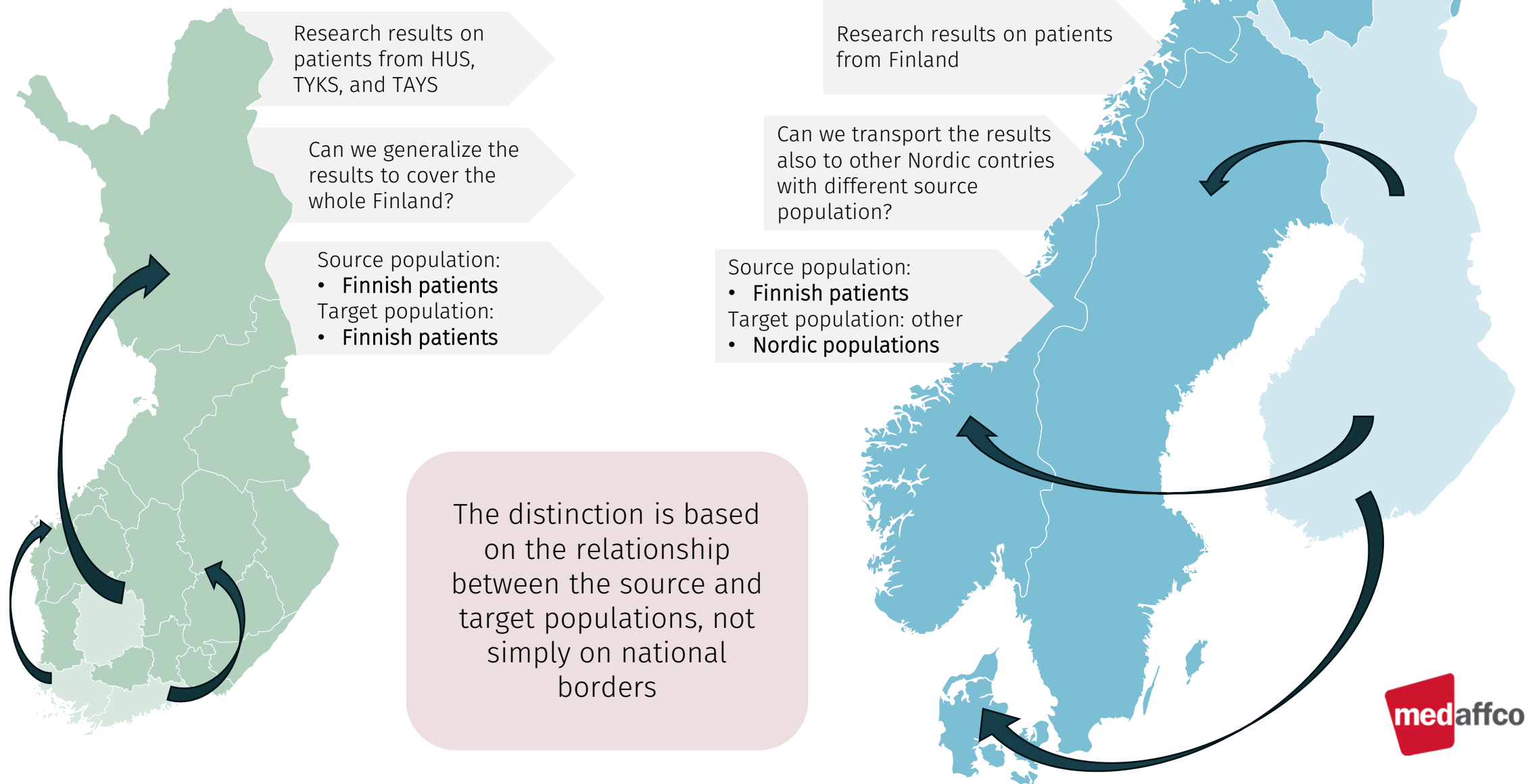
Can the evidence still inform local decision in Europe?

This is the question of transportability.

Generalisability vs transportability



Generalisability vs transportability

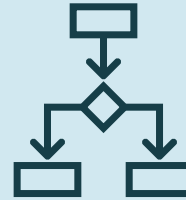


Why transportability matters?



Why to use international evidence?

- Local patient populations may be small
- Follow-up may be insufficient
- Important clinical variables may not be captured
- Relevant local analyses may not yet exist
- Etc



Why to assess transportability?

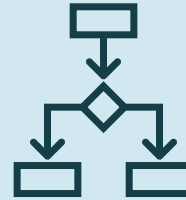
- Patient characteristics may differ
- Treatment access and clinical practice may differ
- Healthcare systems may influence care pathways
- Variables and outcomes may be captured differently
- The same observed result may have a different interpretation

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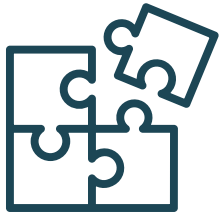
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- Treatment access and clinical practice may differ
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- Variables and outcomes may be captured differently
- The same observed result may have a different interpretation



1. The purpose is not to replace local evidence whenever a larger international dataset exists. Local evidence is usually closest to the decision context.

2. Transportability can help to bridge local evidence gaps, but only if the differences between settings are understood.

A practical transportability workflow



Define the
question

What evidence do we
want to apply, and
where?

A practical transportability workflow



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What evidence do we want to apply, and where?

Identify the source and target populations

Where does the existing evidence come from, and where do we want to apply it?

A practical transportability workflow



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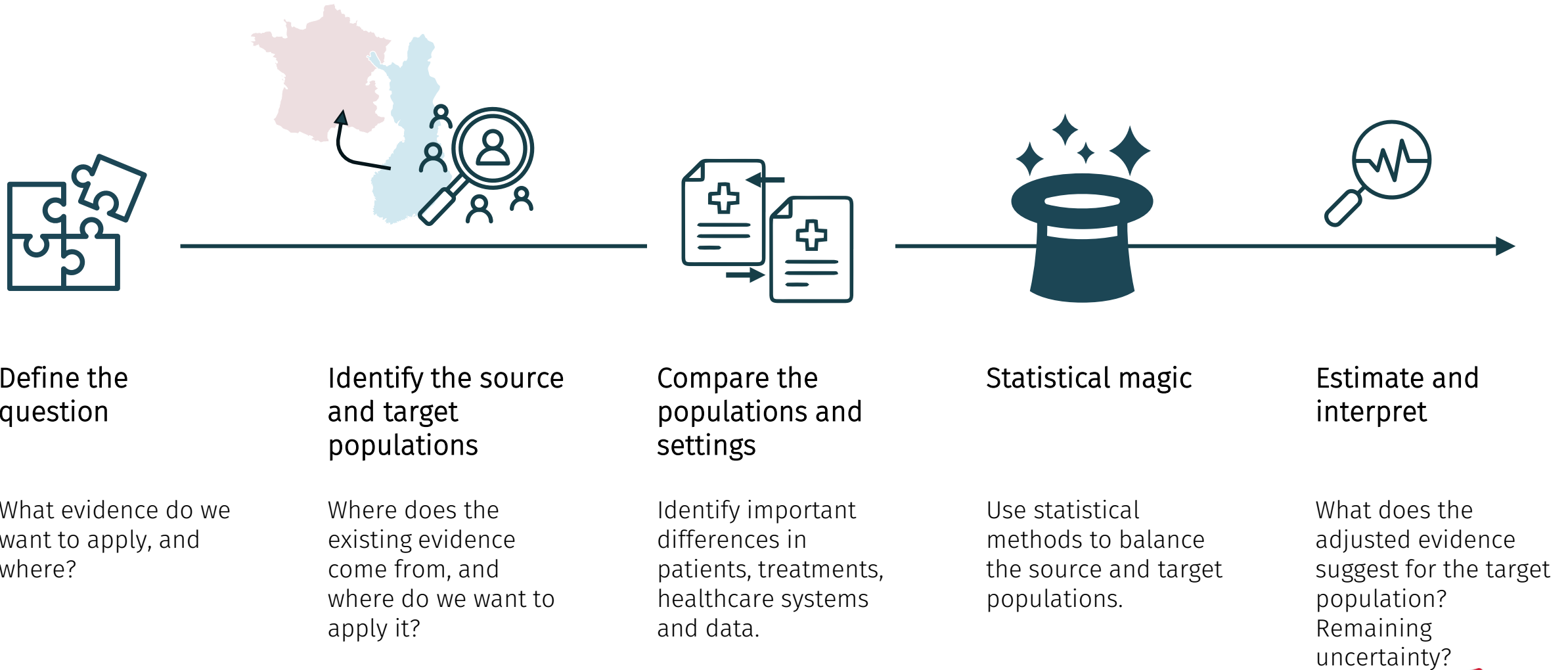
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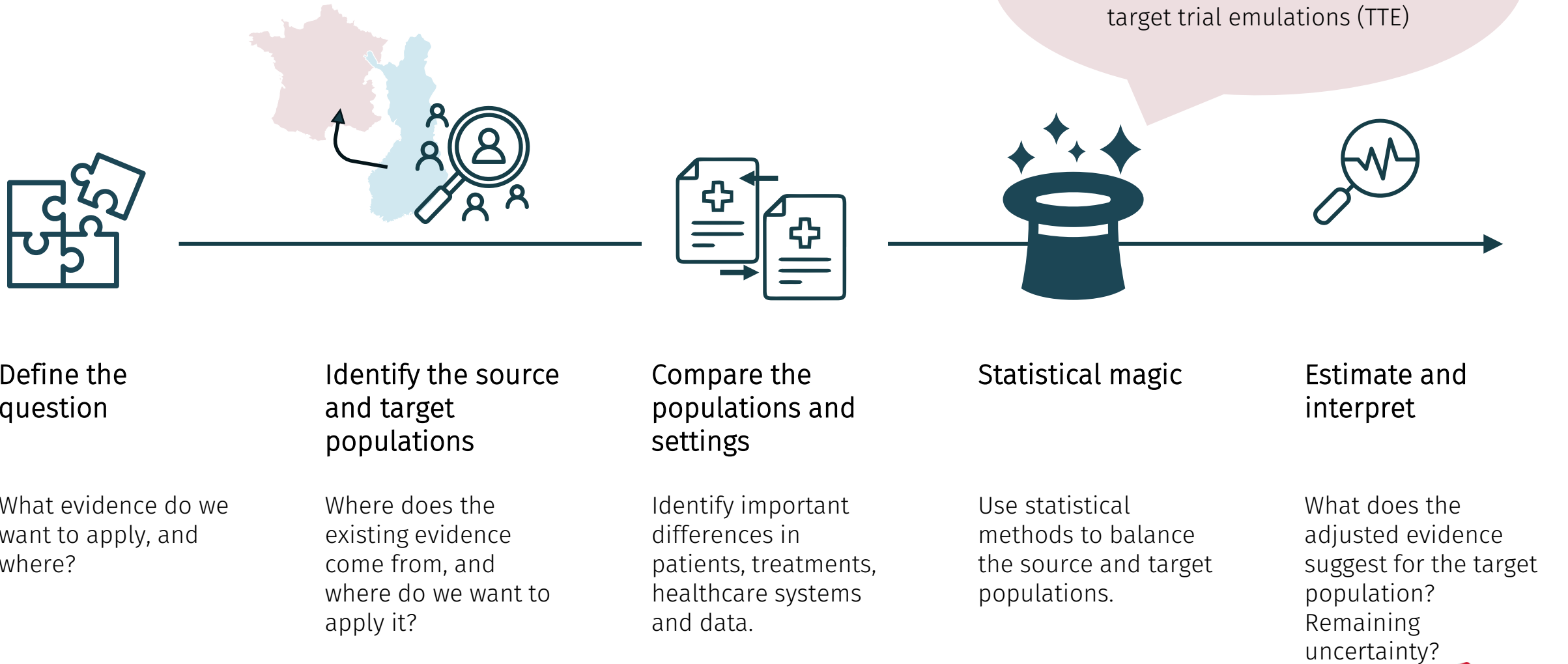
Statistical magic

Use statistical methods to balance the source and target populations.

A practical transportability workflow



A practical transportability workflow



Case example:

Are US results on mNSCLC
transportable to Finland?



Ispor 2026 abstract

Study setting



Source setting

- US population using Flatiron Health EHR-derived data



Target setting

- Finnish population using Medaffcon CORE data from the HUS data lake



Patient population

- Patients with diagnosis of metastatic NSCLC in 2015-2025
- First-line treatment

Study questions

- Are the patients comparable?
- Are treatment patterns comparable?
- Which variables can be harmonised?
- Can US evidence ultimately inform the Finnish setting?

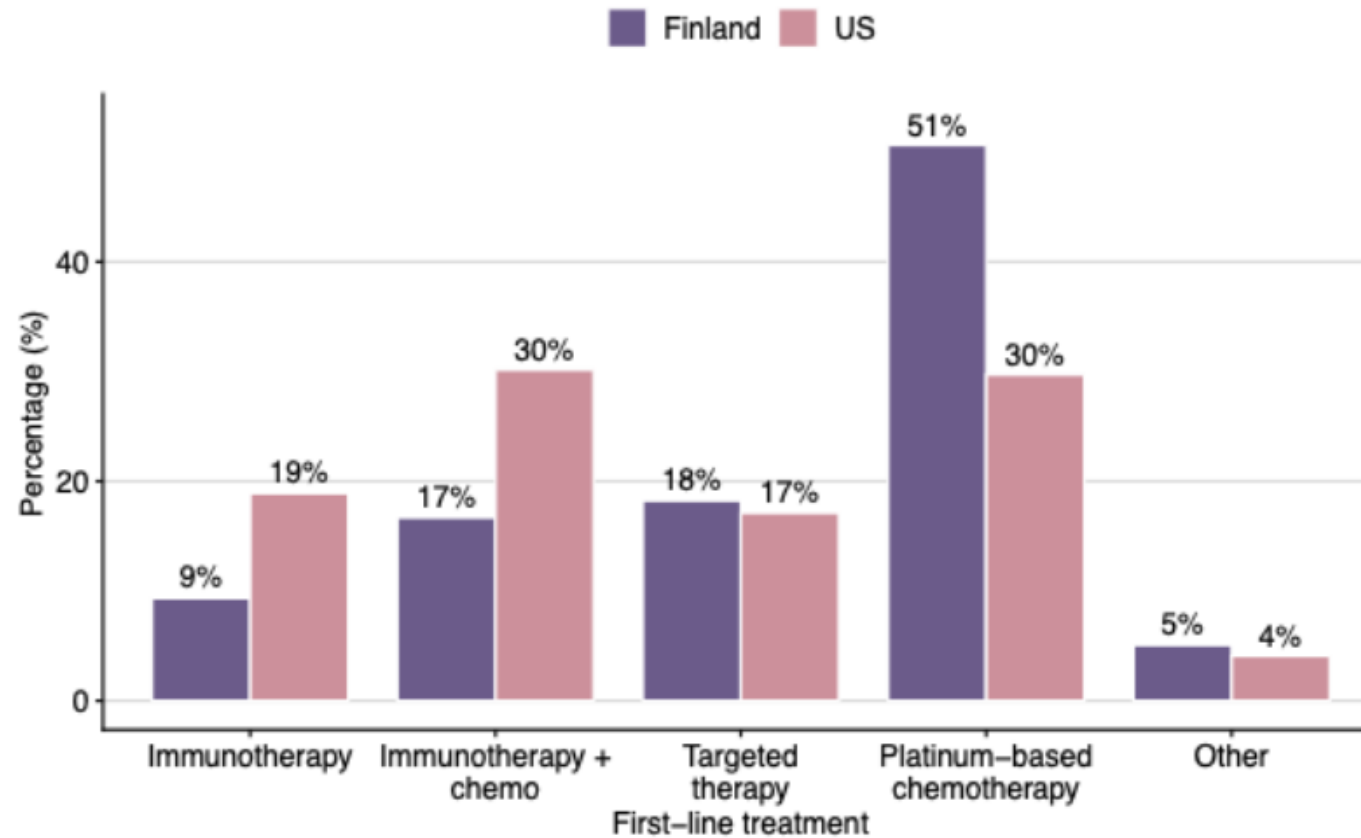
Patient characteristics

Demographics well aligned, but some differences in clinical characteristics.



Cohort size	n = 1,102	n = 47,398
Median age	68 years	69 years
Female	50%	50%
History of smoking	82%	83%
Squamous cell histology	20%	21%
De novo metastatic	85%	77%
PD-L1 positive	35%	43%
PD-L1 unknown	42%	36%

Distribution of first-line treatments



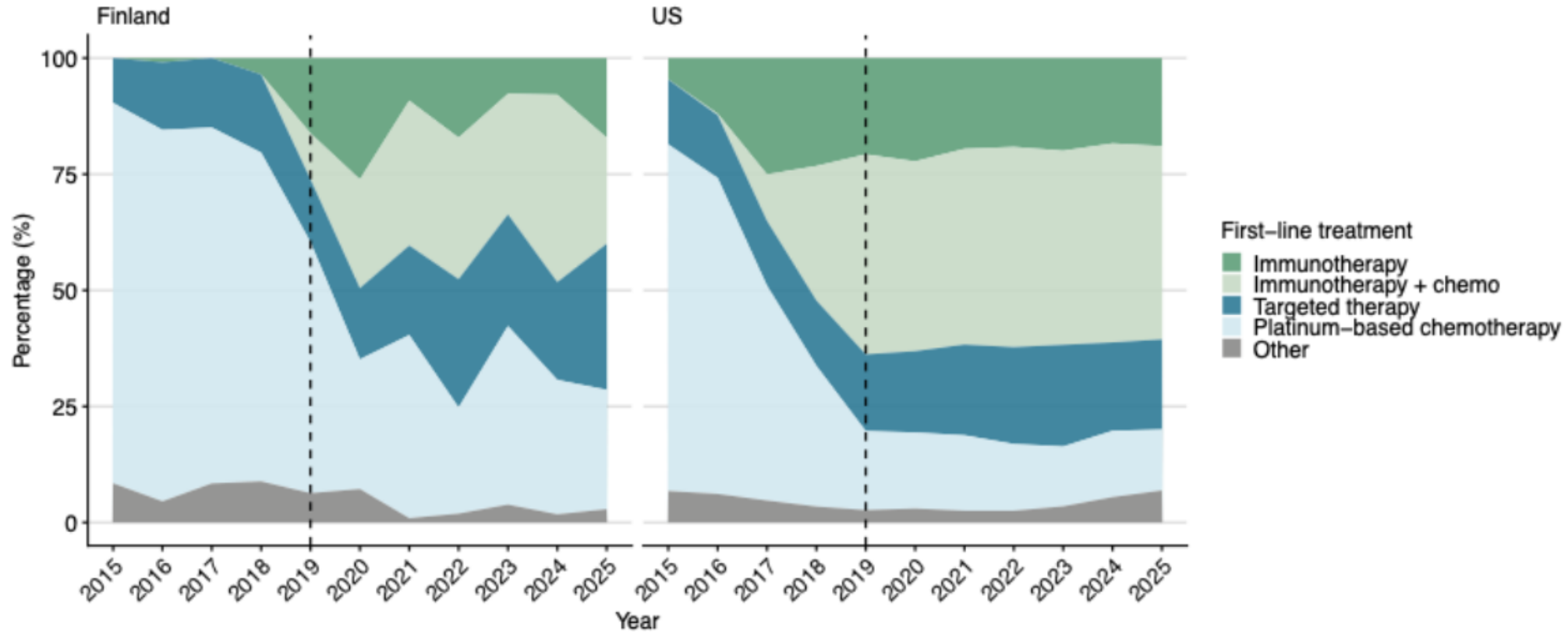
Higher use of immunotherapy in the United States

Comparable use of targeted therapies across countries

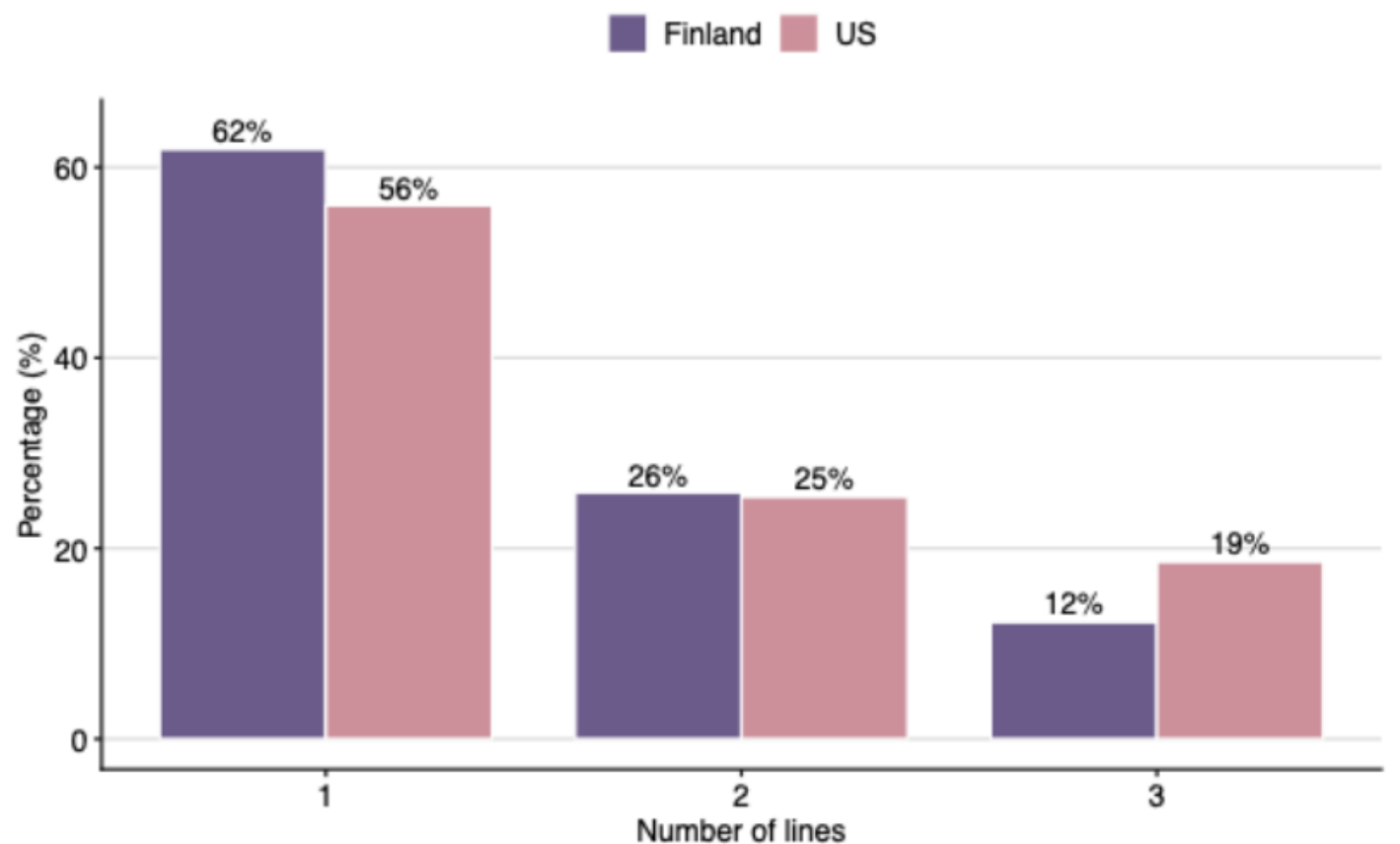
Higher use of conventional chemotherapy in Finland

Treatment adoption over time

First-line immunotherapy was adopted later and used less extensively in Finland than in the US.



Number of treatment lines



In Finland, less patients reach the further treatment lines

Preliminary implications on transportability



The US and Finnish cohorts were well aligned on several demographic and clinical characteristics.



Although some differences in disease characteristics and biomarker documentation remained.



First-line treatment patterns differed, with earlier and greater use of immunotherapy in the US and greater use of conventional chemotherapy in Finland.



These differences do not preclude transportability, but they indicate that unadjusted US evidence should not be assumed to represent Finnish outcomes.



The current results support proceeding with a weighted analysis to better align the US cohort with the Finnish population.

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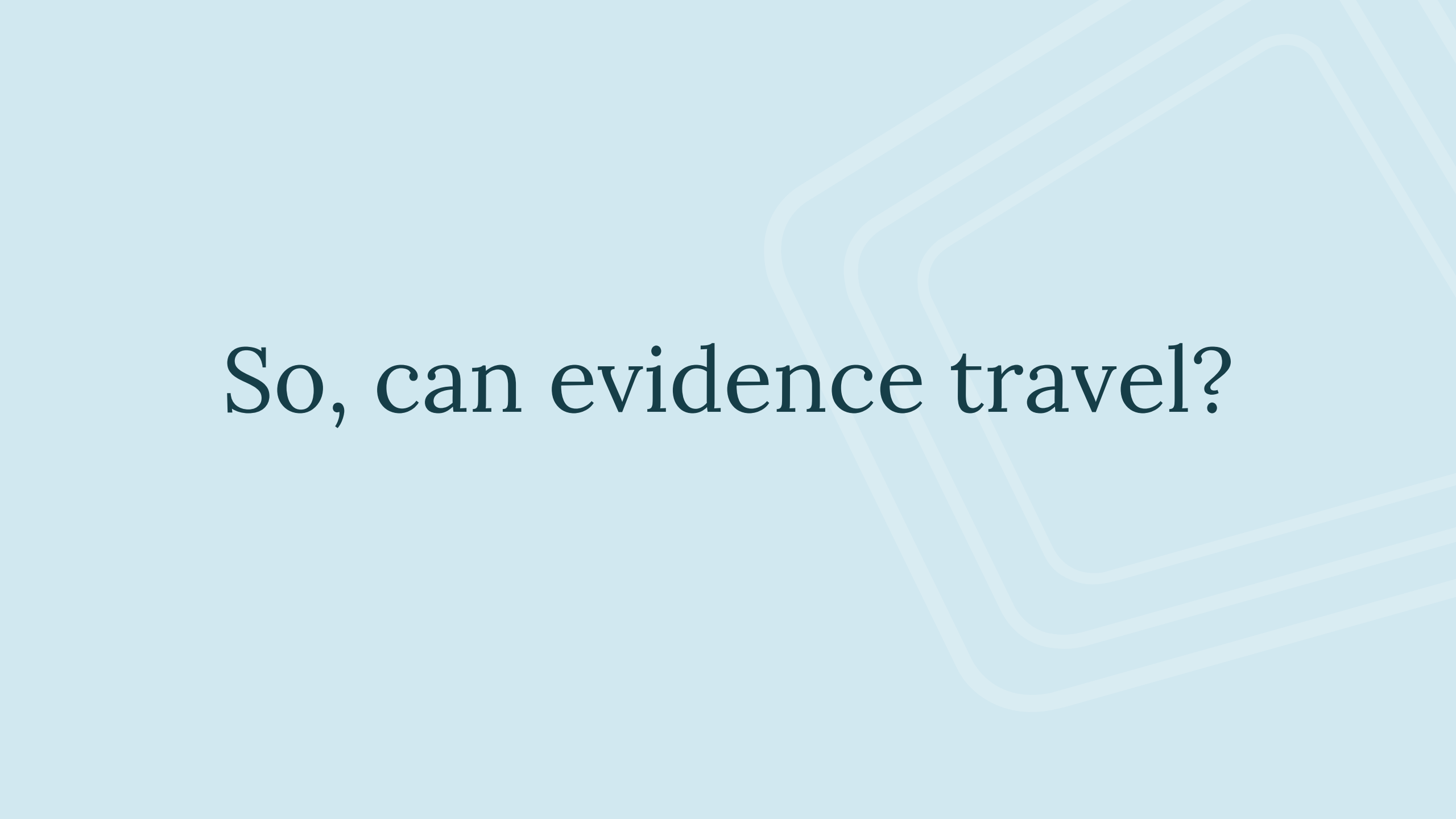
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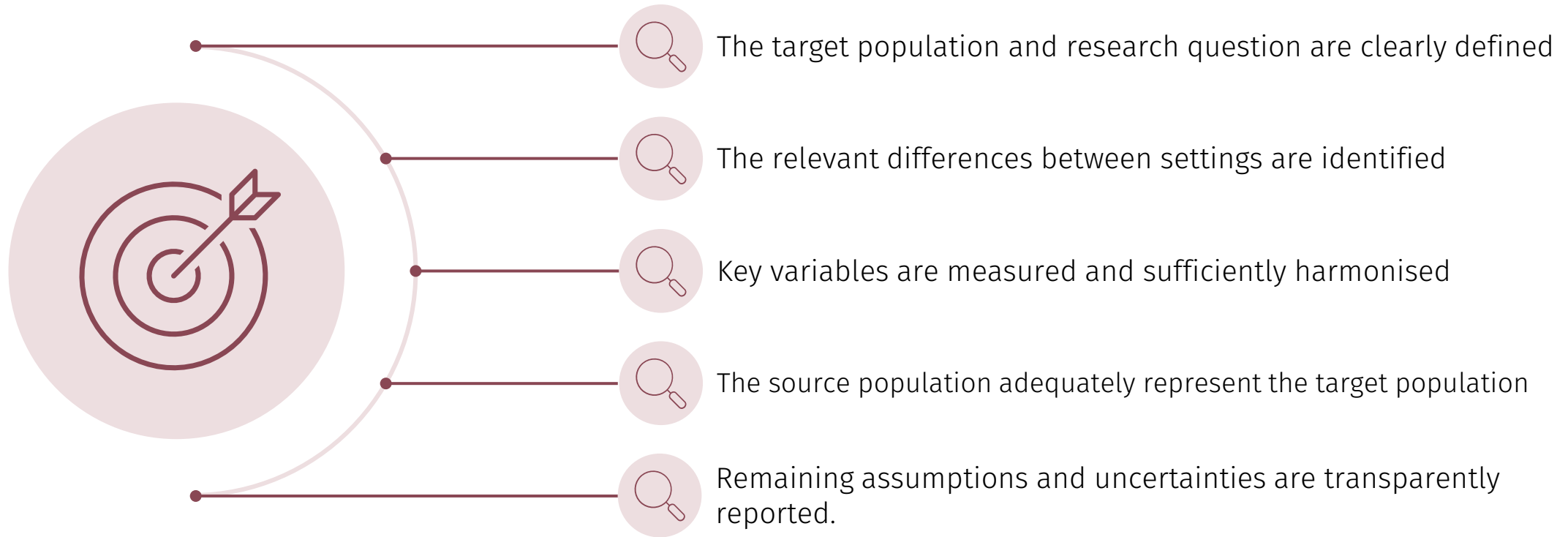


The transportability of overall survival will depend on sufficient population overlap, appropriate adjustment and whether key prognostic factors have similar effects in both settings.

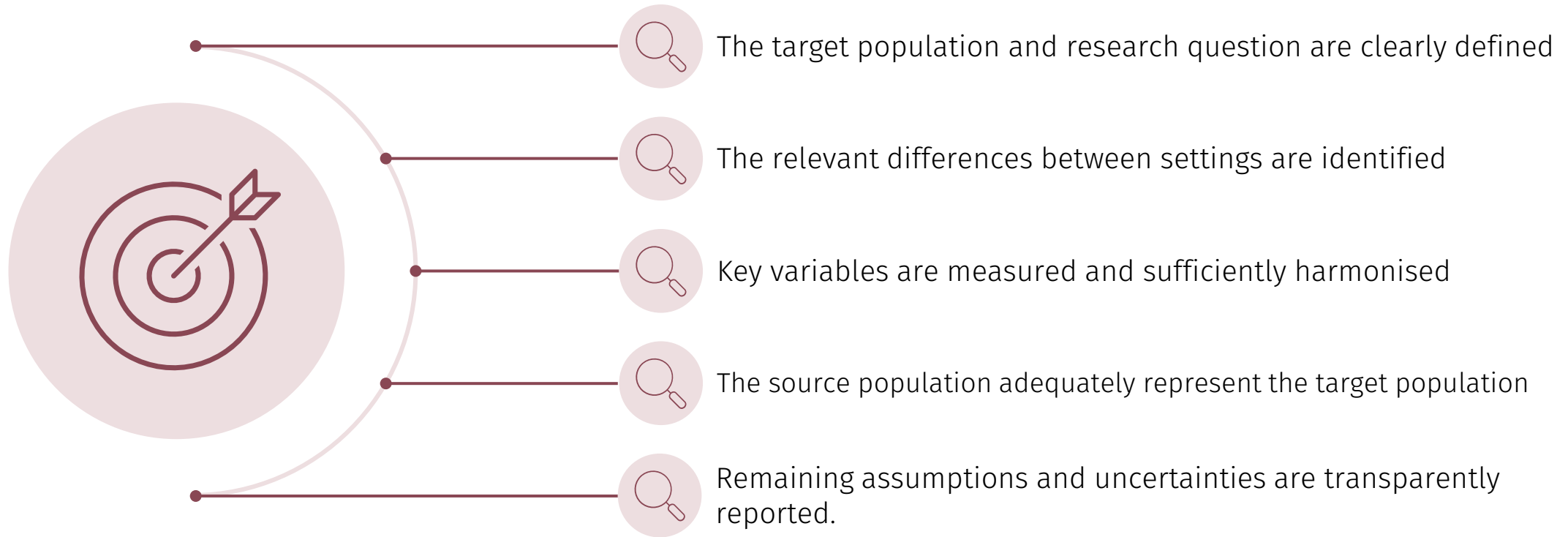


So, can evidence travel?

Potentially yes, when five conditions are met



Potentially yes, when five conditions are met



The question is not simply “Can evidence travel?”, but “Under what assumptions, and with what remaining uncertainty?”

