

Design-Driven Approaches for Enhanced Antibioqram Utilization: A review of User-Centered Design Methodologies with Clinical Expertise

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- 2 Provide a **map of validated UCD methods applied in the initial stages of a design project** to assist other researchers in their implementation in this environment.
- 3 Analyze the application of UCD methods in a **key diagnostic tool: the antibiogram.**

2. Introduction

The traditional evidence-based health services research (HSR) methods are used for executing health projects, ensure **rigorous, effective interventions with technical compliance, dissemination and scalability.**



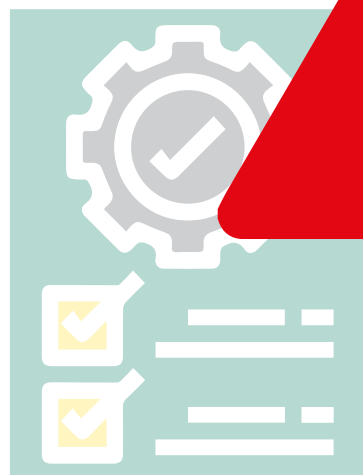
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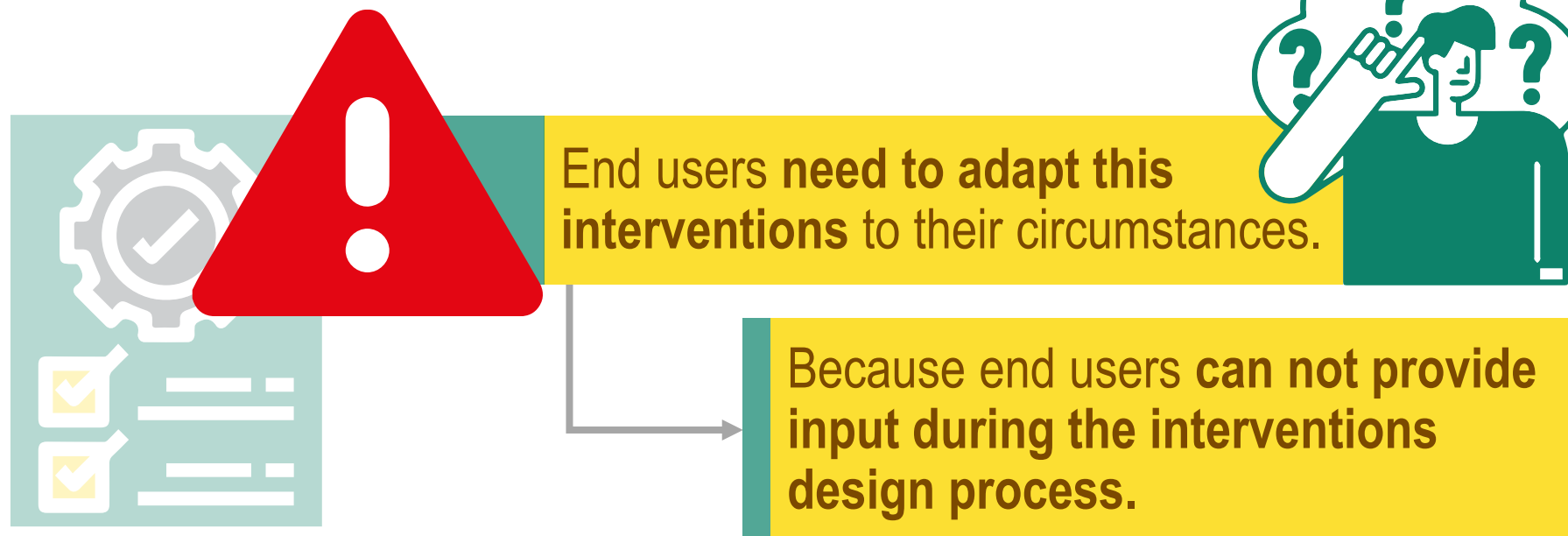


End users need to adapt these interventions to their circumstances.



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Design and
development



Introduction and
integration into end-
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User-centered design methodologies (Design Thinking, Double Diamond approach) are focused on **target audience needs** in addition to the material and technological features.

Involves **repeated prototyping and iterative refinement** using **co-design** processes which involves **interdisciplinary groups**.



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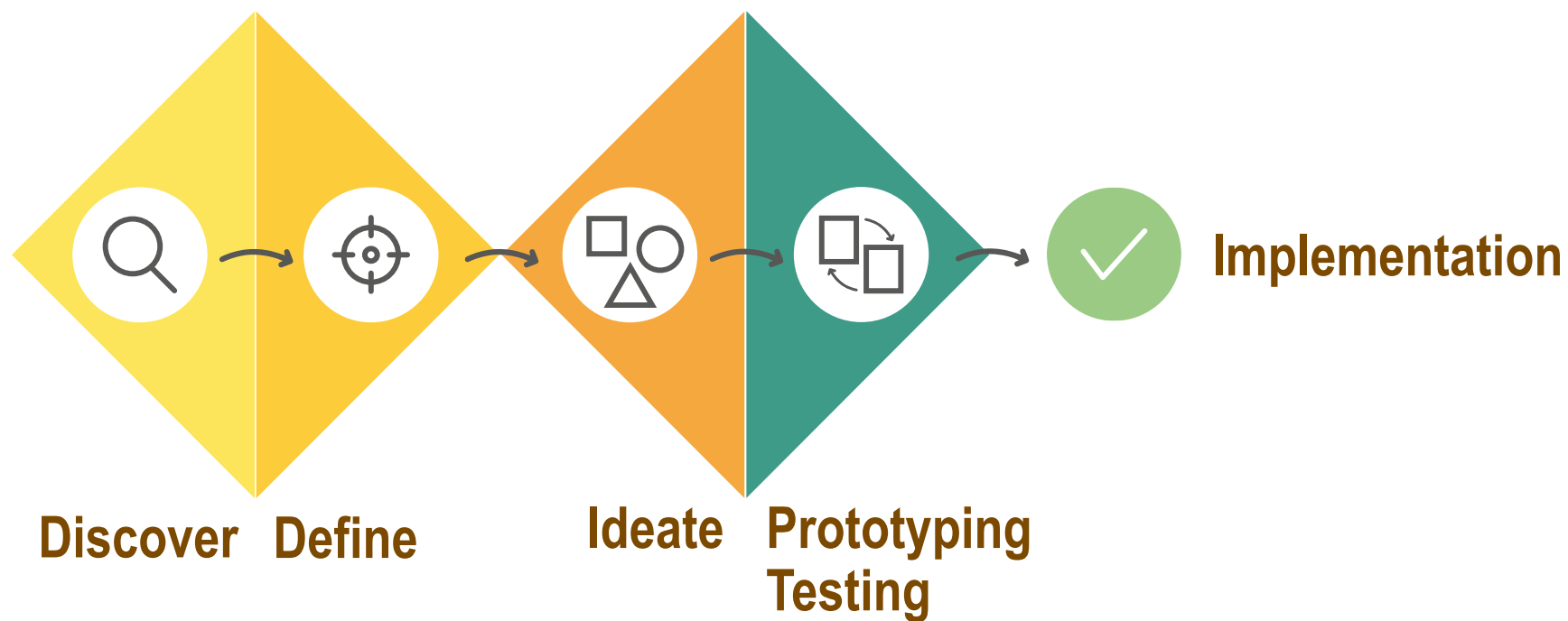
INGEGRAF ASSOCIAZIONE NAZIONALE DISEGNO E METODI



Smart
Nouveau nom d'AIP-PRIMECA
Systems.Manufacturing.Academics.Resources.Technologies

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Design Thinking phases:



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Co-design in healthcare...



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Understands user context, needs, experiences and demands (patients and clinical staff).



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Increases health personnel **satisfaction and acceptance** of developed strategies.



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We believe that a correct analysis and design of the antibiogram could **increase the quality and accuracy** of antibiotic prescribing.

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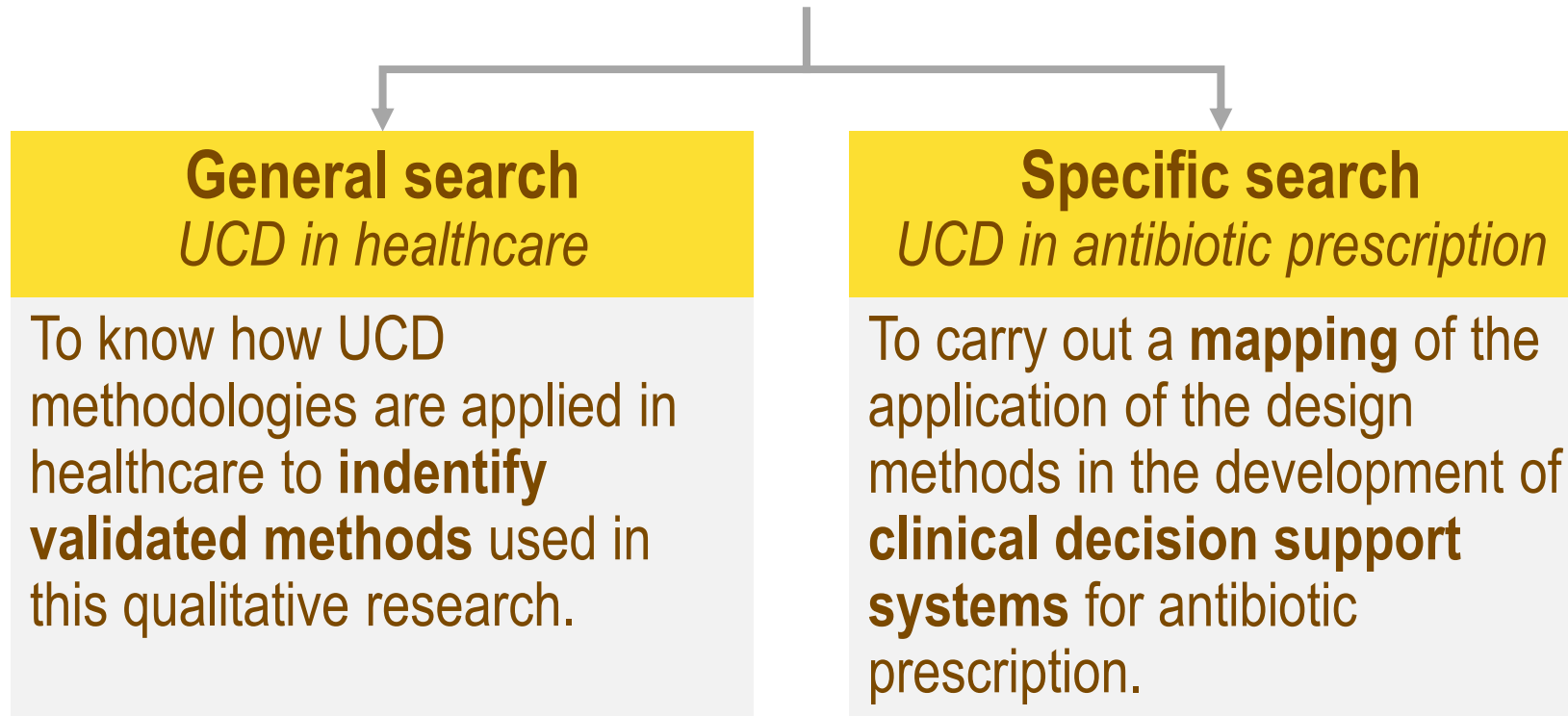
General search *UCD in healthcare*

To know how UCD methodologies are applied in healthcare to **identify validated methods** used in this qualitative research.



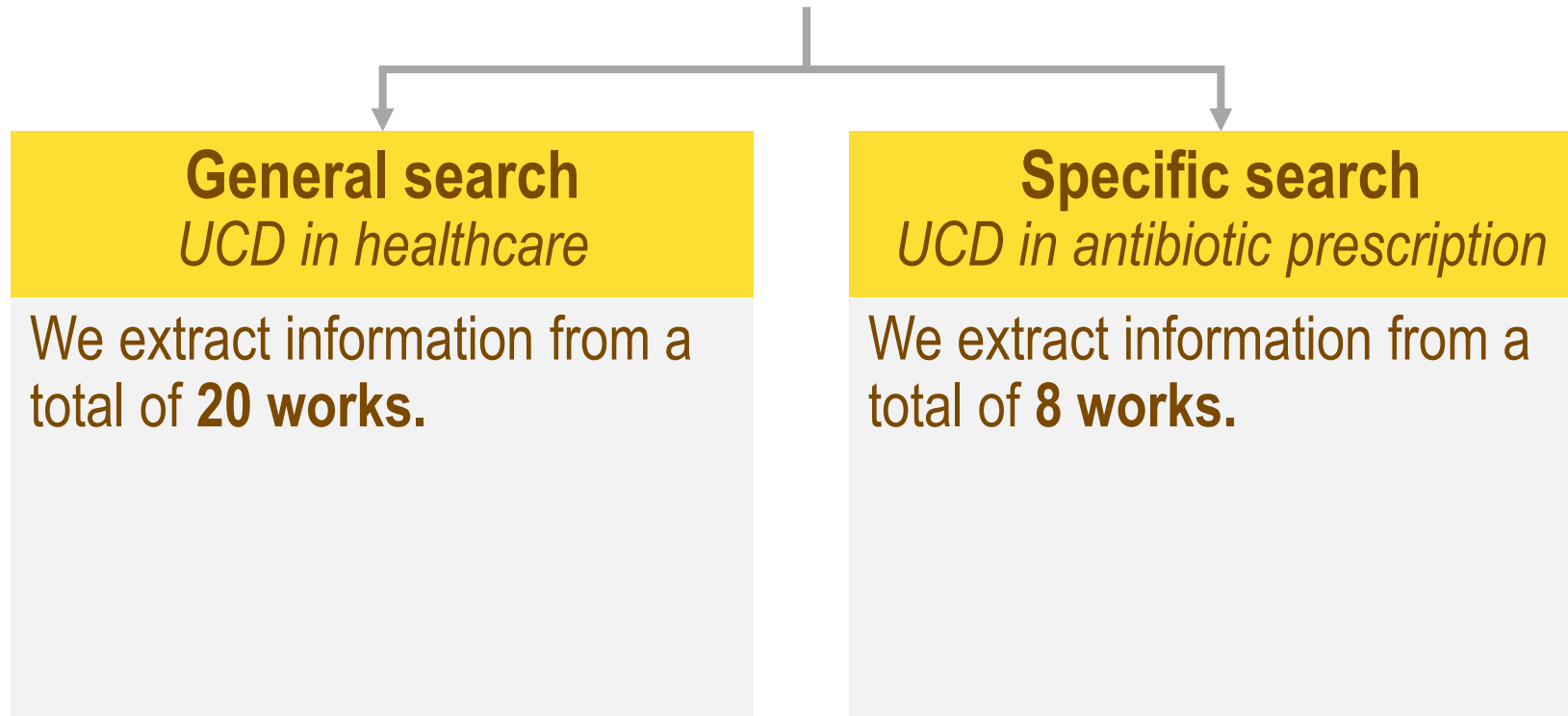
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All these different methods **are often used together** in a single project to establish Touchpoints.



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Design methods are usually associated with the **prototyping and evaluation phases** of already designed solutions with a focus on iterative improvement.

None of the interventions studies the **design of the antibiogram as a strategy**.

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Patients.

Family members or caregivers.



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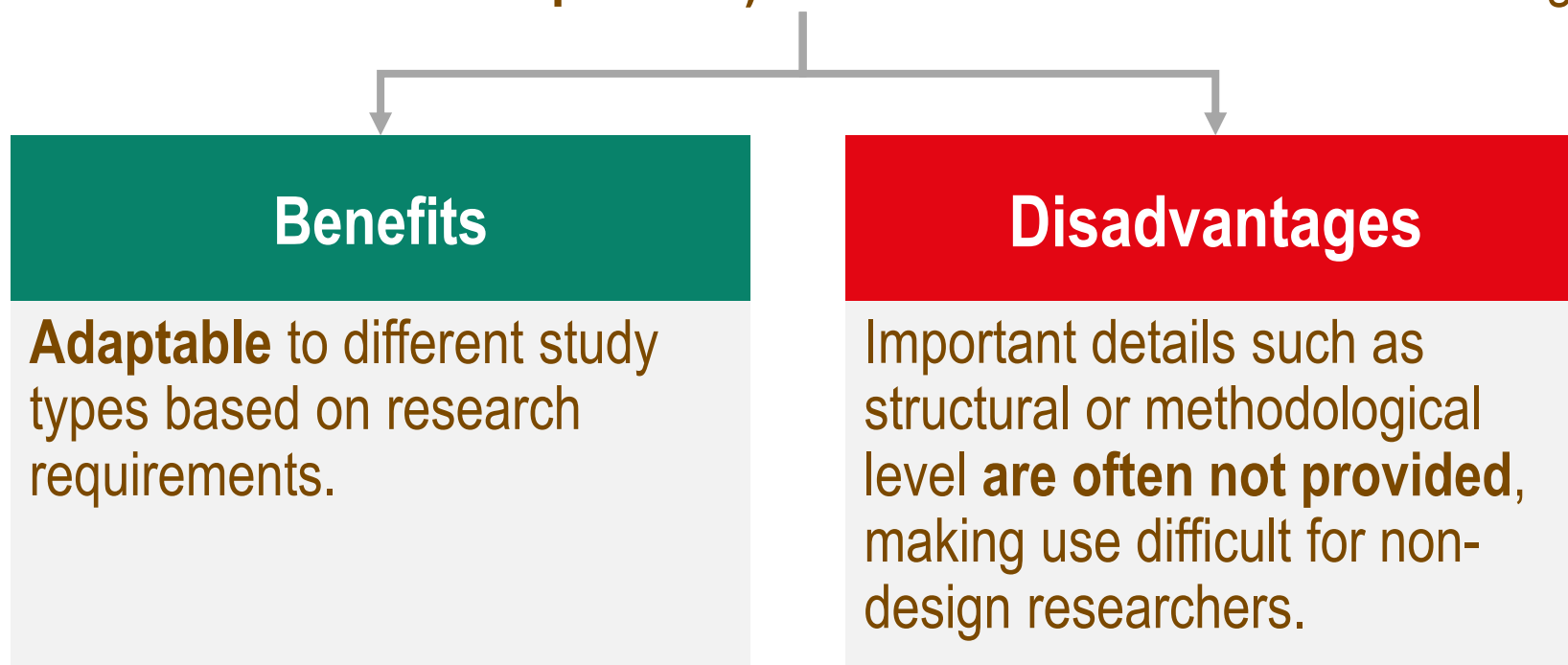


Benefits

Adaptable to different study types based on research requirements.

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Search keywords and other filters applied to the review **could have excluded related research.**

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Include other keywords for a more extensive review.

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Design a guide based on user-centered methods for the initial phase to specify, detail, and standardize procedures for application in health.



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Ensure the application of UCD during the entire antibiogram optimization project by using methods such as field observations, expert interviews and focus groups.

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6. Conclusion

UCD co-design methods in healthcare are **qualitative, descriptive and flexible** and are primarily focus groups, interviews and field observations.

There is a **noticeable lack of detailed descriptions of design tools** for initial user needs analysis.

Typically, two to three of the described methods **are used in combination** within the same study.

Thanks for your attention



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