

Health for People and Planet: Building Bridges to a Sustainable Future

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INTRODUCTION

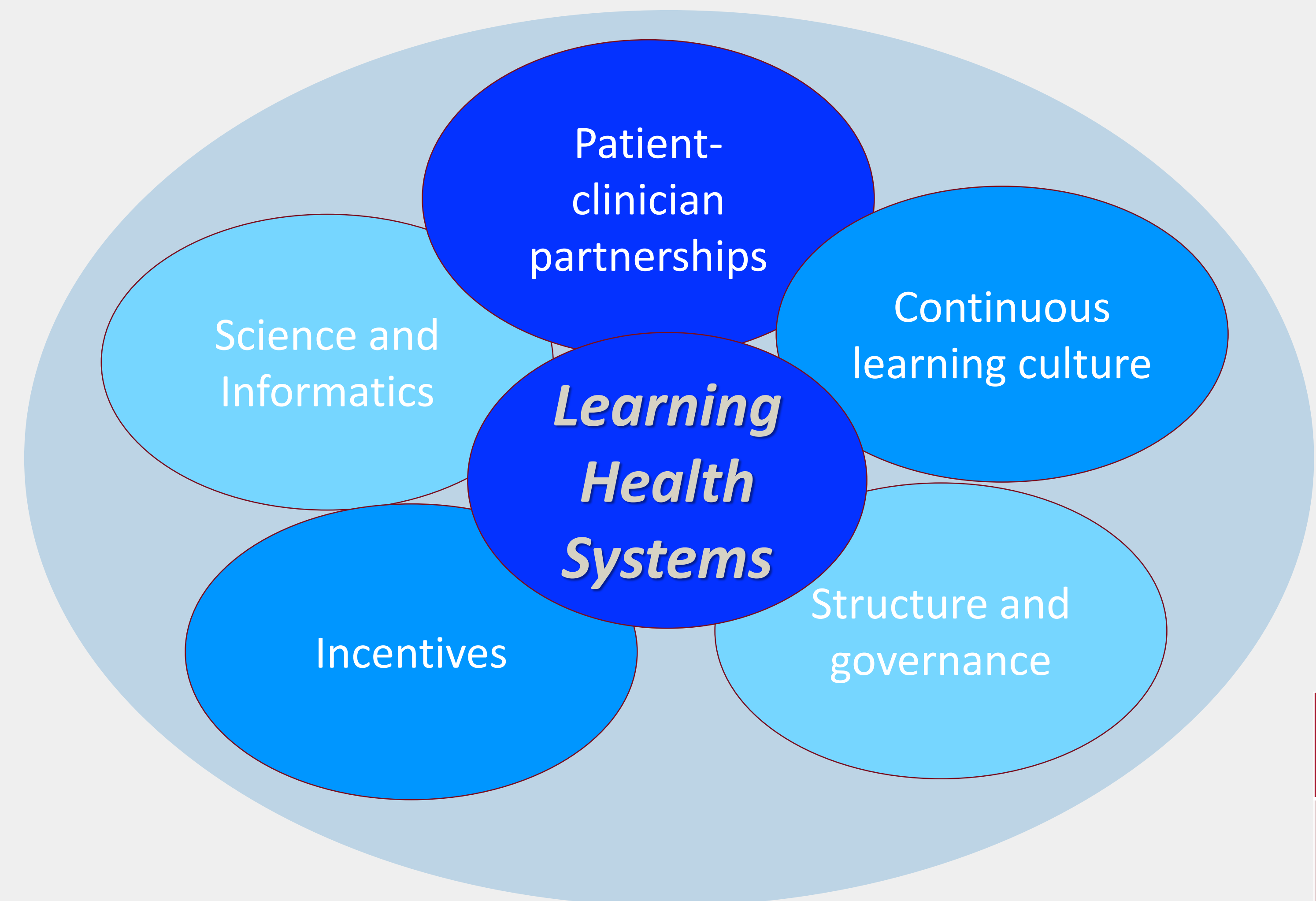
- Healthcare systems worldwide are grappling with rising costs, workforce burnout, pandemics, and the worsening effects of climate change.
- Primary care and emergency departments – the front lines of care – are especially challenged by increasing numbers and complexity of patients, limited resources, and ongoing workforce shortages.

Learning health systems (LHSs) offer a solution to improve and strengthen the front lines of care by leveraging big data and knowledge¹⁻³

- There are few rigorous assessments exploring our progress in applying LHS approaches on the front lines of care.

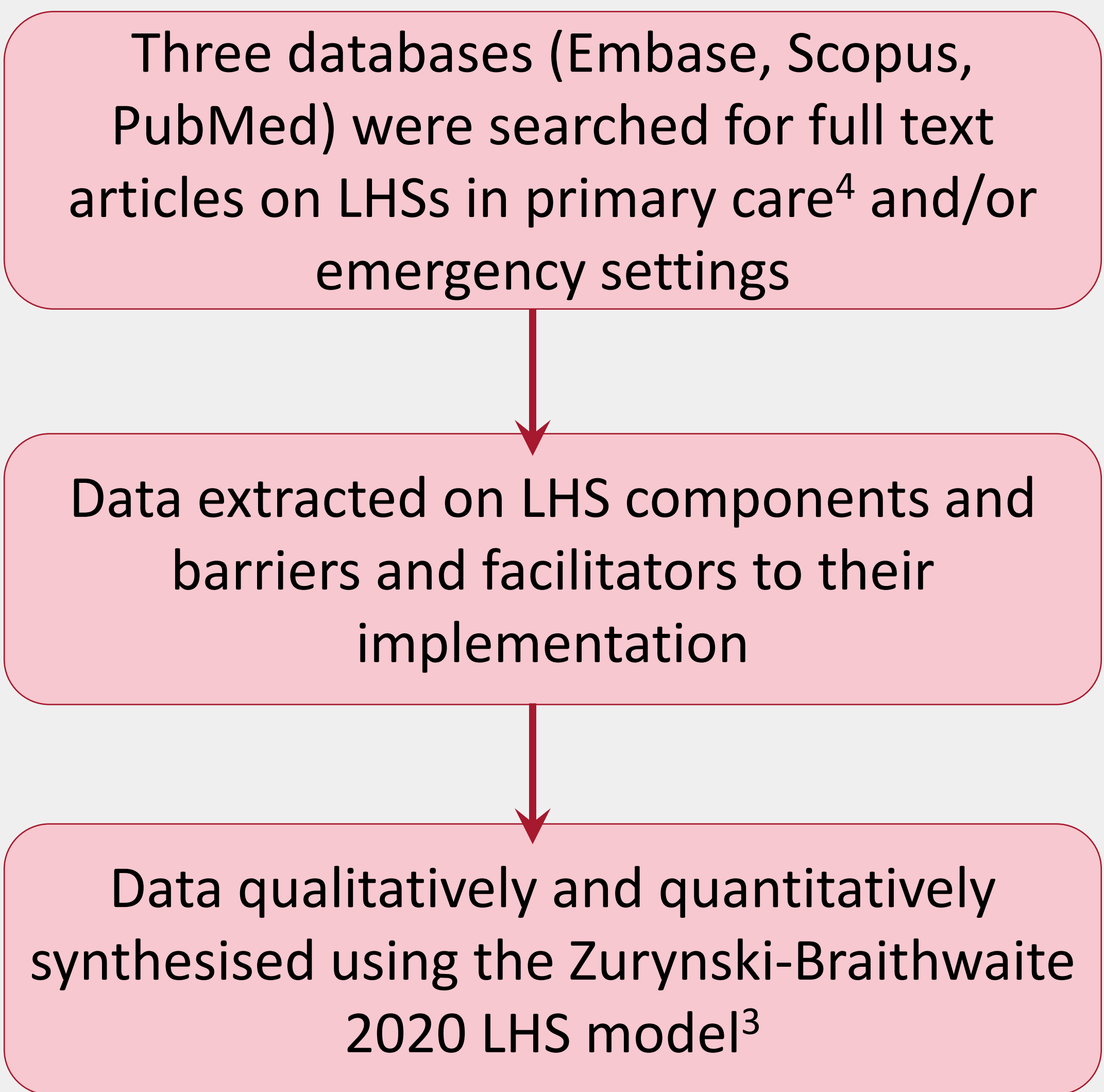
AIMS

- To examine LHS approaches and components utilised in primary care and emergency settings.
- To examine the factors influencing LHS adoption.



Zurynski-Braithwaite 2020 LHS model³

METHODS



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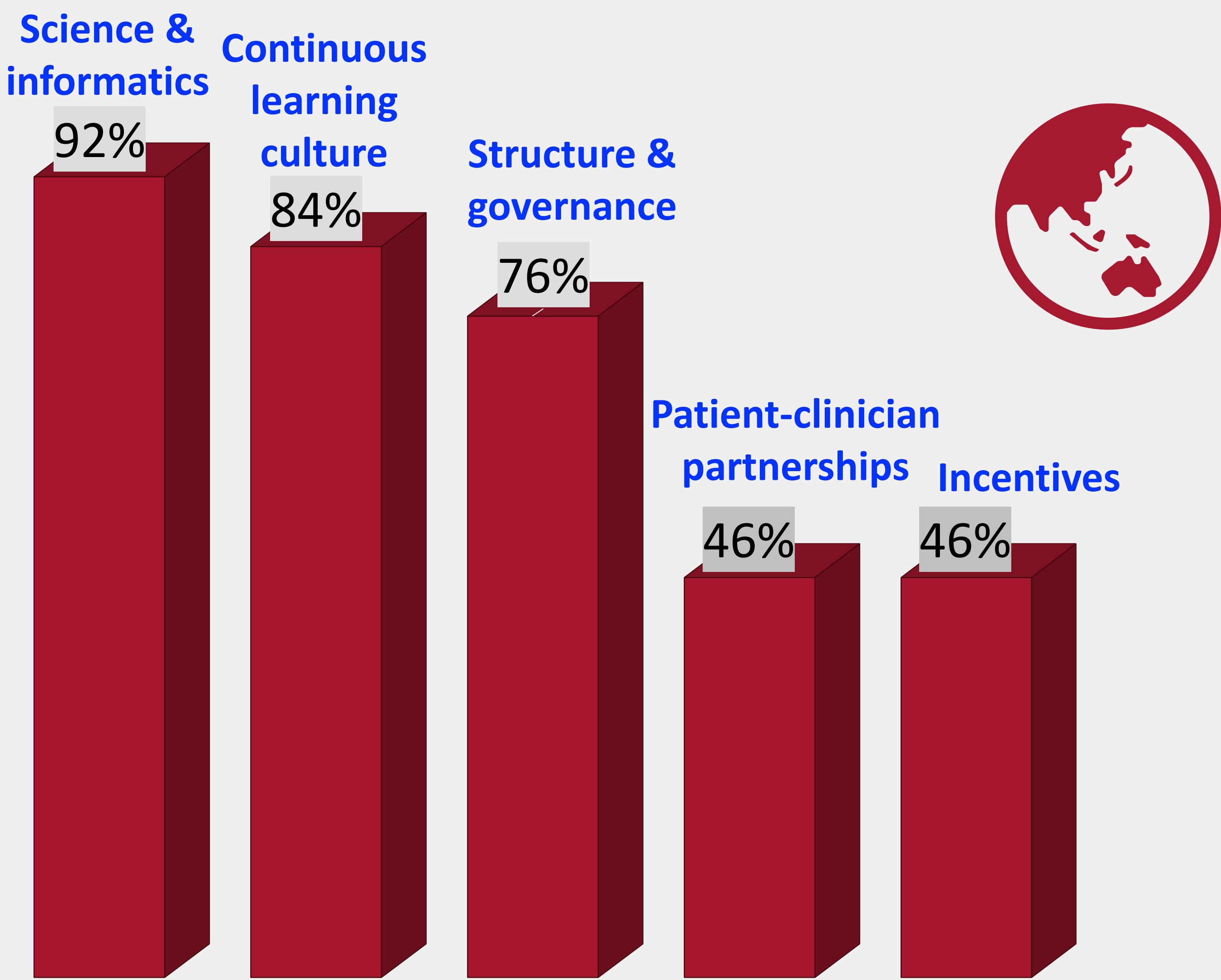
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RESULTS

Study characteristics (n=37)	N(%)
Setting	
Primary care	32 (86%)
Emergency department	7 (19%)
Study location	
North America	25 (68%)
Other	12 (32%)
Income status	
High income	33 (89%)
Upper-middle income	3 (8%)
Low-middle income	1 (3%)
Study type	
Empirical	20 (54%)
Non-empirical	17 (46%)

- 37 articles were eligible for inclusion.
- Most articles examined three (n=10, 27%) or four (n=14, 38%) components of an LHS.
- Five articles (14%) reported on a model containing all five LHS components.

FIGURE 1: Frequency of LHS components



Barriers	Facilitators
Highly complex data infrastructure	Stakeholder & leadership buy-in
Communication challenges	Positive stakeholder relationships
Limited time and resources	Contextual adaptation
Difficulties scheduling clinician participation	Continual involvement in intervention development
Professional resistance to change	Forward-planning for interventions
Governance & policy	Leadership & mentorship

CONCLUSIONS

- LHS approaches are being increasingly adopted in primary care and emergency settings worldwide.
- Science and informatics have been a primary focus, with less attention paid to incentives and fostering stronger patient-clinician partnerships.
- Sustainable LHS approaches need policy and funding models that enable continuous multidisciplinary learning and patient engagement.

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