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Objectives

From 2015 to 2021, household out-of-pocket spending as a share of current health expenditure in Asia-Pacific countries decreased by 3-5%. However, it remained high in low- and middle-income countries (43%), upper-middle-income countries (24%), and less so in high-income countries (16%). Concurrently, voluntary payment schemes remained relatively stable, contributing an average of 10% to current health expenditure with minimal fluctuations between 0.5-1% across countries of various income levels.

Given the challenges of limited public budgets, population ageing and demand for new technologies, there is an urgent need to promote voluntary contributions with risk pooling such as voluntary health insurance plans. We aimed to systematically identify key attributes for consumers when choosing voluntary health insurance plans and their relative importance of these attributes.

Methods

A systematic review was conducted to determine the attributes that consumers prioritize when considering voluntary health insurance schemes. Publications from January 2005 to December 2025 were searched across four sources (PubMed, Scopus, CINAHL, PsycINFO, and EMBASE). The selected qualitative studies were assessed using the CASP checklist. The study methodology was pre-registered with PROSPERO (CRD420250640680).

Results

- A total of 1,778 studies were reviewed, and 8 relevant studies meeting the inclusion criteria were identified.
- The studies employed various research methods, including:
 - Literature reviews
 - Quantitative methods (e.g., choice experiments, conjoint analysis, cross-sectional studies)
 - Qualitative methods (e.g., focus group interviews)
 - Mixed methods
- The studies were conducted across multiple locations:
 - China
 - India
 - United States
 - Uganda
 - Chile
 - Japan
 - Laos
 - Australia
- Participant numbers ranged from 29 to 56,990, with most participants being adults and permanent residents of the respective countries or regions.
- Commonly identified attributes across the studies included:
 - Premiums
 - Co-payment related factors (e.g. Out-of-pocket costs, reimbursement ratio, cost-sharing, deductible)
 - Benefit packages (e.g. hospitalization, pharmaceuticals, consultations, and providers)

Conclusions

By focusing on the identified set of attributes, insurance providers and policymakers can develop more consumer-centered plans, potentially increasing adoption rates and improving overall consumer satisfaction with voluntary health insurance options.

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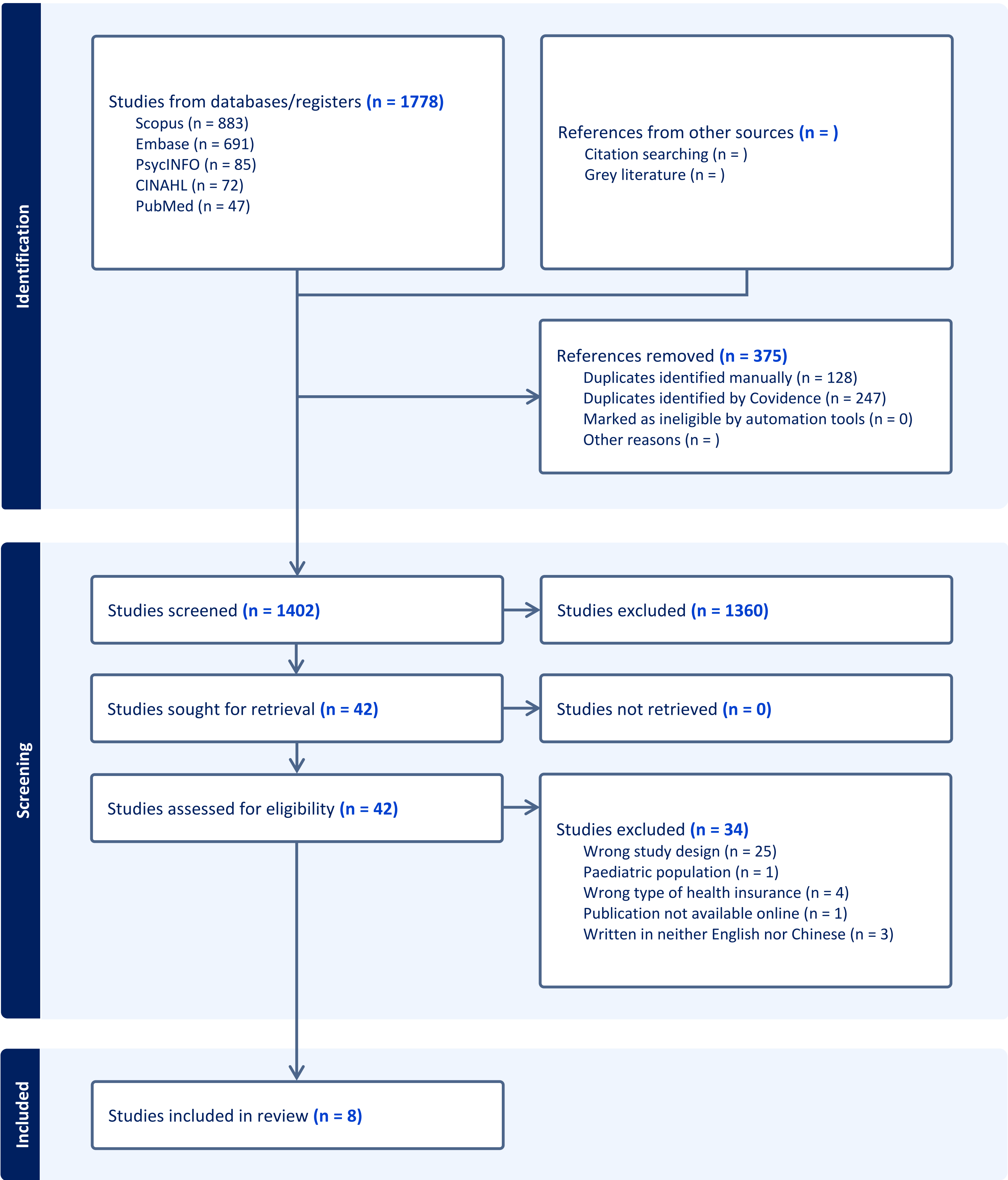


Figure 1. PRISMA flow diagram of study selection process

Study ID	Yamada 2014	Sydavong 2019	Natalier 2008	Kalyango 2021	Rice 2014	Pardo 2014	Dutta 2021	Chen 2022
Attribute 1	Coverage for hospitalisation	Premium	Choice of service provider	Premium	Premium	Premium	Premium	Premium
Attribute 2	Payment at maturity	Coverage for hospitalisation	Waiting times	Providers covered	Provider networks	Waiting times	Coverage for remote super-specialist consultation	Coverage for hospitalisation
Attribute 3	Death benefit	Coverage for pharmaceuticals	Coverage for non-medical aspects, e.g. the luxuries, hotel service	Enrolment of family members	Access to providers	Out-of-pocket costs	Coverage for teleconsultation	Coverage for specialty drugs
Attribute 4	Supplemental coverage upon national health insurance	Coverage for medical consultations	Quality of care	Coverage for chronic illnesses, e.g., asthma, hypertension, and diabetes	Coverage for prescription drugs	Access to better technology	Coverage for the entire family	Compensation for pre-existing conditions
Attribute 5		Prepaid discounts		Coverage for major surgeries, e.g., caesarean sections	Coverage for generic drugs		Brand reputation	Reimbursement ratio
Attribute 6		Coverage for traffic accident			Out-of-pocket costs		Digitization — online payment for processing claims and premiums	Deductibles
Attribute 7		Coverage for transportation			Reimbursement ratio		Claimable funds and benefits	Government involvement
Attribute 8					Cost-sharing for service		Income protection features	
Attribute 9					Plan/company branding		Coverage for medicine delivery	
Attribute 10					Star quality rating		Coverage for emergency services	
Attribute 11					Purchased policies with benefits, e.g. coverage gap coverage		Coverage for follow-up tests	
Attribute 12					Generous benefits			

Table 1. Summary of attributes identified across included studies

