

# INPLASY

## The effect of public health insurance on access to and use of healthcare services: a systematic review of the literature

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### ADMINISTRATIVE INFORMATION

**Support** - This systematic review was conducted without external funding.

**Review Stage at time of this submission** - Completed but not published.

**Conflicts of interest** - None declared.

**INPLASY registration number:** INPLASY2025100107

**Amendments** - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 26 October 2025 and was last updated on 26 October 2025.

### INTRODUCTION

**Review question / Objective** What is the effect of public health insurance on access to and utilisation of health services across different populations and health systems?

Specific objectives:

1. To evaluate the impact of public health insurance implementation or expansion on access to health services (measured by service availability, affordability, geographic accessibility)
2. To assess the effect on utilization of health services (outpatient visits, hospitalization rates, preventive care utilization)
3. To identify barriers and facilitators to successful public health insurance programs
4. To examine differential effects across income levels, age groups, and geographic contexts (urban vs rural).

**Condition being studied** Public health insurance systems and health service access

This review examines public health insurance schemes and their effectiveness in improving access to and utilization of health services. Public health insurance refers to any government-funded or mandatory insurance program designed to provide population coverage for health services, including universal health coverage (UHC) schemes, national health insurance systems, and government-sponsored insurance programs.

### METHODS

**Search strategy** TITLE-ABS-KEY ((effect OR assessment OR impact OR evaluation) AND (health OR healthcare OR "care utilization" OR "medical care" OR "health services use") AND (program OR "public policy" OR "health coverage" OR "medical scheme") AND (insurance OR coverage) AND (LIMIT-TO (SUBJAREA,"ECON")) AND (LIMIT-TO (DOCTYPE, "ar")) AND (LIMIT-TO (LANGUAGE, "English"))).

**Participant or population** The review will include studies conducted in any country examining populations of:

1. Any age groups (children, adolescents, working-age adults, elderly, or mixed populations)
2. Any geographic context (urban, rural, mixed, low-income countries, middle-income countries, or high-income countries)
3. Any socioeconomic status or demographic characteristics
4. Both general population samples and specific subgroups (e.g., pregnant women, individuals with chronic diseases, marginalized populations).

**Intervention** The intervention of interest is public health insurance, defined as any government-funded, government-administered, or mandated insurance scheme designed to provide population health coverage.

Types of Included Interventions:

1. Universal Health Coverage (UHC) schemes providing comprehensive or basic coverage
2. National Health Insurance programs (mandatory or voluntary enrollment)
3. Government-sponsored social health insurance
4. Publicly-financed health insurance schemes
5. Health insurance implemented at national, regional, or subnational levels
6. Insurance expansion programs (geographic or population expansion)
7. Insurance scheme reforms or design modifications.

**Comparator** Primary comparators: No insurance (uninsured populations or pre-insurance baseline).

**Study designs to be included** Quasi-experimental studies (difference-in-differences, interrupted time series, propensity score matching, regression discontinuity designs); observational cohort and longitudinal studies comparing health service access and utilisation before and after insurance implementation; cross-sectional comparative studies; natural experiments from policy changes; and administrative and claims data analyses.

**Eligibility criteria** Study characteristics: Studies must include primary data on health service access or utilization outcomes; published 2014 onwards (to capture modern insurance systems); peer-reviewed reports in English language.

**Information sources** Electronic databases: Scopus, Web of Science.

**Main outcome(s)** Primary outcomes:

1. Access to health services: measured as affordability (out-of-pocket payments,

cost barriers), availability (distance to facilities, wait times), and geographic accessibility.

2. Utilization of health services: outpatient care visits, inpatient hospitalization rates, preventive service utilization.
4. Financial protection: catastrophic health expenditure, impoverishment due to health costs.
5. Equity in access and utilization: differential effects by income, age, geographic location.
6. Health outcomes: mortality, morbidity, quality of life, health status improvements.
7. Coverage: population coverage rates, service coverage.

**Quality assessment / Risk of bias analysis** We used the Critical Appraisal Skills Program (CASP) to assess the quality of the identified articles (Mijovic et al., 2016). This tool allows us to assess the characteristics of the studies included in the review (KASP UK, 2017).

**Strategy of data synthesis** TITLE-ABS-KEY ((effect OR assessment OR impact OR evaluation) AND (health OR healthcare OR "care utilization" OR "medical care" OR "health services use") AND (program OR "public policy" OR "health coverage" OR "medical scheme") AND (insurance OR coverage) AND (LIMIT-TO (SUBJAREA,"ECON")) AND (LIMIT-TO (DOCTYPE, "ar")) AND (LIMIT-TO (LANGUAGE, "English"))).

**Subgroup analysis**

Planned subgroup analyses:

1. By population: Age groups (children, adults, elderly), gender, socioeconomic status, urban vs. rural residence.
2. By geographic region: Low-income countries, middle-income countries, high-income countries; WHO regions.
3. By insurance type: Universal coverage schemes, targeted schemes, mandatory vs. voluntary enrollment.
4. By outcome type: Access indicators vs. utilization indicators; different service types (primary, secondary, tertiary).
5. By study design: Quasi-experimental vs. observational studies.
6. By baseline insurance status: Previously uninsured vs. existing insurance expansion.

**Sensitivity analysis** Sensitivity analyses will explore robustness of findings through:

1. Stratified analyses by study quality: Findings compared between high-quality and

lower-quality studies.

2. Study design sensitivity: Separate presentation of findings from quasi-experimental vs. observational studies.

3. Geographic stratification: Regional variation in effects examined.

4. Time since implementation: Effects assessed by duration of follow-up.

5. Insurance design sensitivity: Effects stratified by insurance program characteristics.

These analyses will highlight consistency and variation in effects across different settings and populations.

**Country(ies) involved** Morocco.

**Keywords** insurance ; evaluation; public policy ; health.

#### **Contributions of each author**

Author 1 - HABIB EL FATHAOUI.

Author 2 - HASSAN ONBOUH.

Author 3 - MERYEM BENHADDOUCH.