Protocol:

Living Evidence Repository and Evidence and Gap Map on Human Papillomavirus Vaccine Delivery

Version 5.0

November 2026

For previous versions please see here.

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Protocol information

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Protocol change log

Version	Changes made to the protocol
5.0	Updated search strings.
4.0	Updated prompts.
4.0	Updated search strings to include new databases.
3.0	Updated prompts for data extraction based on revised and expanded underlying taxonomy. Further details are available in the Version 2.0 Taxonomy and Version 2.0 Taxonomy Change Report.
2.0	French language added as inclusion criteria.
2.0	WHO and UNICEF regions added under data extraction.
2.0	Search strategy updated.

Background and objectives

Despite the proven efficacy of the human papillomavirus (HPV) vaccines in preventing cervical and other cancers, global coverage remains low. Challenges in HPV vaccine delivery, accessibility, effectiveness, feasibility, equity and vaccine hesitancy persist across various regions, especially in low- and middle-income countries (LMICs) (1,2). This protocol for the repository of evidence on HPV vaccine delivery is developed collaboratively to reflect the priorities of the HPV Living Evidence Partnership community. The repository will be updated monthly. Based on current funding, we anticipate that the last update will be in early 2027.

Goal

To provide a comprehensive evidence repository and maps that identify available evidence and implementation gaps on HPV vaccine delivery in LMICs, with the goal of informing policy change and guiding strategic decision-making.

Objectives

Identify and describe evidence on HPV vaccine delivery (not screening or disease burden), and evidence that informs planning, implementation, and coordination.
Highlight gaps in research and practice to guide future studies and interventions.
Support policymakers, public health practitioners, and researchers with an organized repository of evidence.

Scope

Thematic focus

This protocol focuses exclusively on evidence related to the delivery of HPV vaccination in LMICs. Thematic areas include:

- Behavioural and social drivers of uptake
- Delivery design and optimisation
- Demand generation and communication strategies
- Equity and hard-to-reach populations
- Financing and programme sustainability
- Governance, policy and political commitment
- Health workforce capacity and engagement
- Measurement, data systems and enumeration
- Modelling and impact projection
- Service integration and co-delivery
- Vaccine efficacy, immunogenicity and schedule

Geographical focus

LMICs

Inclusion and exclusion criteria

Study types

Inclusion criteria	Exclusion criteria
All empirical study designs are eligible. This includes, but is not limited to: - Evidence synthesis - Narrative or scoping review - Systematic review and meta-analysis - Mixed methods - Modelling and economic evaluation - Economic evaluation - Budget impact analysis (BIA) - Cost analysis/costing study - Cost-benefit analysis (CBA) - Cost-effectiveness analysis (CEA) - Cost-utility analysis (CUA) - Modelling study - Qualitative empirical - Documentary analysis - Focus group discussion - In-depth and key informant interviews - Qualitative study - Quantitative empirical - Clinical trial - Observational study - Prevalence study - Programme evaluation or implementation research - Quasi-experimental study - Randomised controlled trial	Opinion pieces without empirical data (e.g., editorials, news letters/press releases, abstracts, ongoing studies)

Publication status

Inclusion criteria	Exclusion criteria
- Peer-reviewed journal articles - Preprints	- Press releases - Abstracts

- Government reports - NGO or donor reports - Technical briefs - Theses/dissertations - Unpublished data/evaluations	- Ongoing studies

Topics

Inclusion criteria	**Exclusion criteria**
- Behavioural and social drivers of uptake - Delivery design and optimisation - Demand generation and communication strategies - Equity and hard-to-reach populations - Financing and programme sustainability - Governance, policy and political commitment - Health workforce capacity and engagement - Measurement, data systems and enumeration - Modelling and impact projection - Service integration and co-delivery - Vaccine efficacy, immunogenicity and schedule	- Studies focusing only on disease burden or HPV prevalence/incidence data - Studies solely focused on screening or treatment of cervical cancer

Participants

Inclusion criteria	**Exclusion criteria**
- Girls - all ages - Boys - all ages - Parents - Healthcare workers - Interest holders	None

Geographical scope

Inclusion criteria	Exclusion criteria
- LMICs based on the World Bank's fiscal year 2025 (data for calendar year 2023). We also include Venezuela even though it is currently unclassified by the World Bank. We retained studies from Venezuela because of their relevance to the review and to avoid excluding potentially important evidence solely because of the country's current unclassified status. - Mix of low, middle, and high-income countries	High-income countries only

Language

Inclusion criteria	Exclusion criteria
- English - French	Languages other than English or French

Methods

Search strategy

We will search the following databases: Google.com, PubMed, Embase, CINAHL, Cochrane Library, Web of Science, Scopus, ProQuest, OpenAlex, Epistemonikos, Global Index Medicus, Taylor & Francis Online, Wiley Online Library, Google Scholar, and PSYCINFO and we will reach out to the community for additional references not identified by the database searches. Grey literature sources will be searched in French and English because we have library access to databases indexed in English.

For search strings please see Appendix 1.

Screening

We will do an initial screening by title/abstract; eligible references will then be screened based on the full text. Differences in screening will be reconciled and decisions made by a third reviewer where required. Percentage agreement and/or interrater reliability will be reported for the screened records.

Initial screening by title/abstract

References identified through the search will be imported into EPPI-Reviewer, a web-based software program for managing and analysing data in all types of systematic reviews (3). Duplicate records will be automatically identified through the built-in deduplication algorithm to ensure unique references proceed to the screening stage. References with missing abstracts will be identified, and abstracts will be found and added manually where available.

A subset of references will be double screened by two human reviewers to ensure consistency in the screening criteria and guidance and also to serve as a “ground truth” dataset to train the Large Language Models (LLMs).

The references that have been marked as an include by the human reviewers will be screened on title and abstract using the LLM prompt from v4.0 of the map to further determine how accurate the recall and precision of the prompt are Tezok et al (2026) . Using the human decisions and feedback from the LLM model, the prompt will be iteratively refined to optimize recall, so that the chance of missing relevant studies is minimized, and then the precision to reduce the workload for the human reviewers.

Following the works of Tezok (2026), Gates et al (2019), and Pham et al (2021), a 10% subset of the references screened using the LLM will then be checked by the team lead to ensure the accuracy of the LLM results. All included references by the human reviewers and the LLM will then be screened at the full-text level.

Full-text screening

We will retrieve full texts for references included at the title/abstract level from the Zotero plugin to the EPPI-Reviewer software; any full texts not found will be searched for and added manually. Full texts will be screened by one reviewer with a percentage check-in (~10%) by a second reviewer. Any disagreement will be solved by discussion or, if needed, by involving a third reviewer. Automation will not be used for full-text screening, and references included at the full-text screening will progress to data extraction.

Data extraction

We will extract data using LLMs from the included full-text documents according to the HPV Vaccine Delivery Taxonomy v2.3. Using the definition, scope notes, and, if needed, additional clarifying information, a prompt is constructed to ensure accurate information is retrieved from

the full-text document in order to classify or extract specific text relevant to this term. These prompts are developed individually and are specific to each term. For a full list of the taxonomy scheme and concepts, please see the Version 2.3 Taxonomy.

Analysis

The data is stored in the Living HPV Vaccine Delivery Evidence Repository.

The records can be filtered by the items in the HPV Vaccine Delivery Taxonomy developed for this project. The records can be visualised as an interactive map - users can create matrices mapping one variable with another for example: thematic focus vs World Health Organization region. Finally, groups of records can be summarised using AI. This feature is currently not available to the public as it undergoes testing with a small group of pre-registered users.
We will continue to incorporate new records into the repository. The planned cadence is currently monthly. Based on current funding, we anticipate that the last update will be in early 2027.

Engagement and reporting

The primary users of this repository and maps will be knowledge brokers, researchers, decision-makers and other advisors to decisions makers in LMICs involved in HPV vaccine delivery, including but not limited to: representatives from National Immunisation Technical Advisory Groups (NITAGs), EPI teams, Ministries of Health, Ministries of Education, Ministries of Finance, technical partners, academia, researchers, implementing partners, and civil society. The Future Evidence Foundation, the partnership secretariat, will facilitate and convene a community of users to engage with, support the dissemination of, and directly use evidence stored in this repository. This community and engagement process will focus on collectively refining a rigorous body of evidence to ensure that policy and practice questions receive timely, context-specific answers.

The community will be engaged through three structures:

- The Steering Group (SG) stewards the development of the living HPV vaccine delivery evidence base. It provides strategic direction and ensures that the living evidence serves the broader research and delivery community and meets end users' needs. See here for the involved individuals.
- The Tactical Group (TG) provides expert guidance and technical oversight to the eBASE Africa team, UCL, and Alive, which are the teams responsible for developing the repository and maps. Members of the TG will provide technical oversight to ensure the LSR is both methodologically sound and meets the needs of decision-makers. The TG will provide technical oversight to ensure the development of robust, high-quality living protocols.
- The Group of Advisors (AG) provides technical input and systems insight to inform the SG's strategic decisions.

References

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3. Thomas, J., Graziosi, S., Brunton, J., Ghouze, Z., O'Driscoll, P., & Bond, M. & Koryakina, A. (2023) EPPI-Reviewer: advanced software for systematic reviews, maps and evidence synthesis. EPPI Centre, UCL Social Research Institute, University College London
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Appendix 1: Search strings

Search strings in English

PubMed

(((("Papillomavirus Infections"[Mesh] OR "Uterine Cervical Neoplasms"[Mesh] OR (HPV[tiab] OR papilloma*[tiab] OR papiloma*[tiab] OR "human papillomavirus"[tiab] OR "human papilloma virus"[tiab] OR "cervical cancer"[tiab] OR "cervical intraepithelial neoplasia"[tiab] OR CIN[tiab])) AND (vaccin*[tiab] OR immuniz*[tiab] OR immunis*[tiab])) OR (Gardasil[tiab] OR "Gardasil 9"[tiab] OR Cervarix[tiab] OR Cecolin[tiab] OR Cervavac[tiab] OR Walrinvax[tiab] OR 2vHPV[tiab] OR 4vHPV[tiab] OR 9vHPV[tiab]) OR "Papillomavirus Vaccines"[Mesh]) AND ("Health Education"[Mesh] OR "Health Promotion"[Mesh] OR "Health Communication"[Mesh] OR "Mass Media"[Mesh] OR "Social Media"[Mesh] OR "Text Messaging"[Mesh] OR "Reminder Systems"[Mesh] OR "Motivational Interviewing"[Mesh] OR "Community Health Workers"[Mesh] OR "Community Participation"[Mesh] OR "Social Marketing"[Mesh] OR ("demand generation"[tiab] OR "demand creation"[tiab] OR "social mobilization"[tiab] OR "social mobilisation"[tiab] OR "community mobilization"[tiab] OR "community mobilisation"[tiab] OR "community engagement"[tiab] OR "health education"[tiab] OR "health promotion"[tiab] OR "health communication"[tiab] OR ("communication strategy"[tiab] OR "communication strategies"[tiab]) OR ("communication intervention"[tiab] OR "communication interventions"[tiab]) OR "behavior change"[tiab] OR "behaviour change"[tiab] OR ("behavioral intervention"[tiab] OR "behavioral interventions"[tiab]) OR ("behavioural intervention"[tiab] OR "behavioural interventions"[tiab]) OR SBC*[tiab] OR "mass media"[tiab] OR "social media"[tiab] OR mHealth[tiab] OR ("text message"[tiab] OR "text messages"[tiab] OR "text messaging"[tiab]) OR SMS[tiab] OR reminder*[tiab] OR nudge*[tiab] OR incentive*[tiab] OR ("cash transfer"[tiab] OR "cash transfers"[tiab]) OR advocacy[tiab] OR awareness[tiab] OR sensitiz*[tiab] OR sensitis*[tiab] OR misinformation[tiab] OR "risk communication"[tiab] OR ("community health worker"[tiab] OR "community health workers"[tiab]) OR ("community leader"[tiab] OR "community leaders"[tiab]) OR ("religious leader"[tiab] OR "religious leaders"[tiab]) OR ("educational intervention"[tiab] OR "educational interventions"[tiab]) OR ("decision aid"[tiab] OR "decision aids"[tiab]) OR "motivational interviewing"[tiab] OR ("provider recommendation"[tiab] OR "provider recommendations"[tiab]) OR "peer education"[tiab] OR ("community dialogue"[tiab] OR "community dialogues"[tiab]) OR "stakeholder engagement"[tiab])) OR ("Health Education"[Mesh] OR "Health Promotion"[Mesh] OR "Health Communication"[Mesh] OR "Mass Media"[Mesh] OR "Social Media"[Mesh] OR "Text Messaging"[Mesh] OR "Reminder Systems"[Mesh] OR "Motivational Interviewing"[Mesh] OR "Community Health Workers"[Mesh] OR "Community Participation"[Mesh] OR "Social Marketing"[Mesh] OR ("demand generation"[tiab] OR "demand creation"[tiab] OR "social mobilization"[tiab] OR "social mobilisation"[tiab] OR "community mobilization"[tiab] OR "community mobilisation"[tiab] OR "community engagement"[tiab] OR "health education"[tiab] OR "health promotion"[tiab] OR "health communication"[tiab] OR ("communication strategy"[tiab] OR "communication

strategies"[tiab]) OR ("communication intervention"[tiab] OR "communication interventions"[tiab]) OR "behavior change"[tiab] OR "behaviour change"[tiab] OR ("behavioral intervention"[tiab] OR "behavioral interventions"[tiab]) OR ("behavioural intervention"[tiab] OR "behavioural interventions"[tiab]) OR SBC*[tiab] OR "mass media"[tiab] OR "social media"[tiab] OR mHealth[tiab] OR ("text message"[tiab] OR "text messages"[tiab] OR "text messaging"[tiab]) OR SMS[tiab] OR reminder*[tiab] OR nudge*[tiab] OR incentive*[tiab] OR ("cash transfer"[tiab] OR "cash transfers"[tiab]) OR advocacy[tiab] OR awareness[tiab] OR sensitiz*[tiab] OR sensitis*[tiab] OR misinformation[tiab] OR "risk communication"[tiab] OR ("community health worker"[tiab] OR "community health workers"[tiab]) OR ("community leader"[tiab] OR "community leaders"[tiab]) OR ("religious leader"[tiab] OR "religious leaders"[tiab]) OR ("educational intervention"[tiab] OR "educational interventions"[tiab]) OR ("decision aid"[tiab] OR "decision aids"[tiab]) OR "motivational interviewing"[tiab] OR ("provider recommendation"[tiab] OR "provider recommendations"[tiab]) OR "peer education"[tiab] OR ("community dialogue"[tiab] OR "community dialogues"[tiab]) OR "stakeholder engagement"[tiab])) AND ("Vaccination Coverage"[Mesh] OR "Vaccination Hesitancy"[Mesh] OR (uptake[tiab] OR "vaccination coverage"[tiab] OR "vaccine coverage"[tiab] OR "immunization coverage"[tiab] OR "immunisation coverage"[tiab] OR hesitanc*[tiab] OR acceptab*[tiab] OR acceptance[tiab] OR refusal[tiab] OR "dose completion"[tiab] OR "series completion"[tiab] OR "population reach"[tiab]))

Embase

(((HPV OR papilloma* OR papiloma* OR "human papillomavirus" OR "human papilloma virus" OR "cervical cancer" OR "cervical intraepithelial neoplasia" OR CIN):ti,ab,kw AND (vaccin* OR immuniz* OR immunis*):ti,ab,kw) OR (Gardasil OR "Gardasil 9" OR Cervarix OR Cecolin OR Cervavac OR Walrinvax OR 2vHPV OR 4vHPV OR 9vHPV):ti,ab,kw OR 'human papilloma virus vaccine'/exp) AND ('immunization program'/exp OR 'vaccination program'/exp OR 'mass immunization'/exp OR 'health program implementation'/exp OR 'health care delivery'/exp OR (deliver* OR "health system*" OR roll* OR implement* OR polic* OR program* OR campaign* OR outreach OR coordinat* OR integrat* OR planning OR "school-based" OR "community-based" OR "facility-based" OR "mobile clinic*" OR NIP OR "routine immunization" OR "routine immunisation" OR "routine vaccination" OR "catch-up" OR "multi-age cohort"):ti,ab,kw) AND ('health education'/exp OR 'health promotion'/exp OR 'mass medium'/exp OR 'social media'/exp OR 'reminder system'/exp OR 'text messaging'/exp OR ("demand generation" OR "demand creation" OR "social mobilization" OR "social mobilisation" OR "community mobilization" OR "community mobilisation" OR "community engagement" OR "health education" OR "health promotion" OR "health communication" OR "communication strateg*" OR "communication intervention*" OR "behavior change" OR "behaviour change" OR "behavioral intervention*" OR "behavioural intervention*" OR SBC* OR "mass media" OR "social media" OR mHealth OR "text messag*" OR SMS OR reminder* OR nudge* OR incentive* OR "cash transfer*" OR advocacy OR awareness OR sensitiz* OR sensitis* OR misinformation OR "risk communication" OR "community health worker*" OR "community leader*" OR "religious leader*" OR "educational intervention*" OR "decision aid*" OR "motivational interviewing" OR "provider recommendation*" OR "peer education" OR "community dialogue*" OR "stakeholder

engagement"):ti,ab,kw) AND (uptake OR "vaccination coverage" OR "vaccine coverage" OR "immunization coverage" OR "immunisation coverage" OR hesitanc* OR acceptab* OR acceptance OR refusal OR "dose completion" OR "series completion" OR "population reach"):ti,ab,kw

CINAHL

(((MH "Papillomavirus Infections+" OR MH "Uterine Cervical Neoplasms+" OR XB(HPV OR papilloma* OR papiloma* OR "human papillomavirus" OR "human papilloma virus" OR "cervical cancer" OR "cervical intraepithelial neoplasia" OR CIN)) AND (MH "Immunization+" OR XB(vaccin* OR immuniz* OR immunis*))) OR XB(Gardasil OR "Gardasil 9" OR Cervarix OR Cecolin OR Cervavac OR Walrinvax OR 2vHPV OR 4vHPV OR 9vHPV) OR MH "Papillomavirus Vaccine") AND (MH "Immunization Programs" OR MH "School Health Services+" OR MH "Health Care Delivery+" OR MH "Health Services Accessibility+" OR MH "Adolescent Health Services" OR XB(deliver* OR "health system*" OR roll* OR implement* OR polic* OR program* OR campaign* OR outreach OR coordinat* OR integrat* OR planning OR "school based" OR "community based" OR "facility based" OR "mobile clinic*" OR NIP OR "routine immunization" OR "routine immunisation" OR "routine vaccination" OR "catch up" OR "multi age cohort")) OR (MH "Health Education+" OR MH "Health Promotion+" OR MH "Mass Media+" OR MH "Social Media" OR XB("demand generation" OR "demand creation" OR "social mobilization" OR "social mobilisation" OR "community mobilization" OR "community mobilisation" OR "community engagement" OR "health education" OR "health promotion" OR "health communication" OR "communication strateg*" OR "communication intervention*" OR "behavior change" OR "behaviour change" OR "behavioral intervention*" OR "behavioural intervention*" OR SBC* OR "mass media" OR "social media" OR mHealth OR "text messag*" OR SMS OR reminder* OR nudge* OR incentive* OR "cash transfer*" OR advocacy OR awareness OR sensitiz* OR sensitis* OR misinformation OR "risk communication" OR "community health worker*" OR "community leader*" OR "religious leader*" OR "educational intervention*" OR "decision aid*" OR "motivational interviewing" OR "provider recommendation*" OR "peer education" OR "community dialogue*" OR "stakeholder engagement")) AND XB(uptake OR "vaccination coverage" OR "vaccine coverage" OR "immunization coverage" OR "immunisation coverage" OR hesitanc* OR acceptab* OR acceptance OR refusal OR "dose completion" OR "series completion" OR "population reach")

Cochrane Library

(HPV OR papilloma* OR papiloma* OR "human papillomavirus" OR "human papilloma virus" OR "cervical cancer" OR "cervical intraepithelial neoplasia" OR CIN) in Title Abstract Keyword AND uptake OR "vaccination coverage" OR "vaccine coverage" OR "immunization coverage" OR "immunisation coverage" OR hesitanc* OR acceptab* OR acceptance OR refusal OR "dose completion" OR "series completion" OR "population reach" in Title Abstract Keyword AND (deliver* OR "health system*" OR roll* OR implement* OR polic* OR program* OR campaign* OR outreach OR coordinat* OR integrat* OR planning OR "school based" OR "community

based" OR "facility based" OR "mobile clinic*" OR NIP OR "routine immunization" OR "routine immunisation" OR "routine vaccination" OR "catch up" OR "multi age cohort" OR "demand generation" OR "demand creation" OR "social mobilization" OR "social mobilisation" OR "community mobilization" OR "community mobilisation" OR "community engagement" OR "health education" OR "health promotion" OR "health communication" OR "communication strateg*" OR "communication intervention*" OR "behavior change" OR "behaviour change" OR "behavioral intervention*" OR "behavioural intervention*" OR SBC* OR "mass media" OR "social media" OR mHealth OR "text messag*" OR SMS OR reminder* OR nudge* OR incentive* OR "cash transfer*" OR advocacy OR awareness OR sensitiz* OR sensitis* OR misinformation OR "risk communication" OR "community health worker*" OR "community leader*" OR "religious leader*" OR "educational intervention*" OR "decision aid*" OR "motivational interviewing" OR "provider recommendation*" OR "peer education" OR "community dialogue*" OR "stakeholder engagement") in Title Abstract Keyword - (Word variations have been searched)

Web of Science

(HPV OR papilloma* OR papiloma* OR "human papillomavirus" OR "human papilloma virus" OR "cervical cancer" OR "cervical intraepithelial neoplasia" OR CIN OR vaccin* OR immuniz* OR immunis* OR Gardasil OR "Gardasil 9" OR Cervarix OR Cecolin OR Cervavac OR Walrinvax OR 2vHPV OR 4vHPV OR 9vHPV) AND (deliver* OR "health system*" OR roll* OR implement* OR polic* OR program* OR campaign* OR outreach OR coordinat* OR integrat* OR planning OR "school based" OR "community based" OR "facility based" OR "mobile clinic*" OR NIP OR "routine immunization" OR "routine immunisation" OR "routine vaccination" OR "catch up" OR "multi age cohort" OR "demand generation" OR "demand creation" OR "social mobilization" OR "social mobilisation" OR "community mobilization" OR "community mobilisation" OR "community engagement" OR "health education" OR "health promotion" OR "health communication" OR "communication strateg*" OR "communication intervention*" OR "behavior change" OR "behaviour change" OR "behavioral intervention*" OR "behavioural intervention*" OR SBC* OR "mass media" OR "social media" OR mHealth OR "text messag*" OR SMS OR reminder* OR nudge* OR incentive* OR "cash transfer*" OR advocacy OR awareness OR sensitiz* OR sensitis* OR misinformation OR "risk communication" OR "community health worker*" OR "community leader*" OR "religious leader*" OR "educational intervention*" OR "decision aid*" OR "motivational interviewing" OR "provider recommendation*" OR "peer education" OR "community dialogue*" OR "stakeholder engagement") AND (uptake OR "vaccination coverage" OR "vaccine coverage" OR "immunization coverage" OR "immunisation coverage" OR hesitanc* OR acceptab* OR acceptance OR refusal OR "dose completion" OR "series completion" OR "population reach")

Scopus

((TITLE-ABS-KEY(HPV OR papilloma* OR papiloma* OR "human papillomavirus" OR "human papilloma virus" OR "cervical cancer" OR "cervical intraepithelial neoplasia" OR CIN) AND TITLE-ABS-KEY(vaccin* OR immuniz* OR immunis*)) OR TITLE-ABS-KEY(Gardasil OR

"Gardasil 9" OR Cervarix OR Cecolin OR Cervavac OR Walrinvax OR 2vHPV OR 4vHPV OR 9vHPV)) AND TITLE-ABS-KEY(deliver* OR "health system*" OR roll* OR implement* OR polic* OR program* OR campaign* OR outreach OR coordinat* OR integrat* OR planning OR "school-based" OR "community-based" OR "facility-based" OR "mobile clinic*" OR NIP OR "routine immunization" OR "routine immunisation" OR "routine vaccination" OR "catch-up" OR "multi-age cohort" OR "demand generation" OR "demand creation" OR "social mobilization" OR "social mobilisation" OR "community mobilization" OR "community mobilisation" OR "community engagement" OR "health education" OR "health promotion" OR "health communication" OR "communication strateg*" OR "communication intervention*" OR "behavior change" OR "behaviour change" OR "behavioral intervention*" OR "behavioural intervention*" OR SBC* OR "mass media" OR "social media" OR mHealth OR "text messag*" OR SMS OR reminder* OR nudge* OR incentive* OR "cash transfer*" OR advocacy OR awareness OR sensitiz* OR sensitis* OR misinformation OR "risk communication" OR "community health worker*" OR "community leader*" OR "religious leader*" OR "educational intervention*" OR "decision aid*" OR "motivational interviewing" OR "provider recommendation*" OR "peer education" OR "community dialogue*" OR "stakeholder engagement") AND TITLE-ABS-KEY(uptake OR "vaccination coverage" OR "vaccine coverage" OR "immunization coverage" OR "immunisation coverage" OR hesitanc* OR acceptab* OR acceptance OR refusal OR "dose completion" OR "series completion" OR "population reach")

ProQuest

(HPV OR "human papillomavirus" OR "human papilloma virus" OR "cervical cancer") AND (vaccin* OR immuniz* OR immunis* OR Gardasil OR Cervarix OR Cecolin OR Cervavac OR Walrinvax) AND (deliver* OR implement* OR rollout OR "roll-out" OR program* OR campaign* OR outreach OR "school-based" OR "community-based" OR "facility-based" OR integrat* OR coordinat* OR "routine immunization" OR "routine immunisation" OR "demand generation" OR "demand creation" OR "social mobilization" OR "community engagement" OR "health education" OR "health communication" OR "communication strategy" OR "communication strategies" OR "behavior change" OR "behaviour change" OR "mass media" OR "social media" OR reminder* OR incentive* OR nudge* OR "text message" OR "text messages" OR advocacy OR misinformation OR "community health worker" OR "community health workers") AND (uptake OR coverage OR hesitanc* OR acceptab* OR acceptance OR completion)

OpenAlex

(HPV OR "human papillomavirus" OR "human papilloma virus" OR "cervical cancer" OR vaccin* OR immuniz* OR immunis* OR Gardasil OR Cervarix OR Cecolin OR Cervavac OR Walrinvax) AND (deliver* OR implement* OR rollout OR "roll-out" OR program* OR campaign* OR outreach OR "school-based" OR "community-based" OR "facility-based" OR integrat* OR coordinat* OR "routine immunization" OR "routine immunisation") OR ("demand generation" OR "demand creation" OR "social mobilization" OR "community engagement" OR "health education" OR "health communication" OR "communication strateg*" OR "behavior change" OR

"behaviour change" OR "mass media" OR "social media" OR reminder* OR incentive* OR nudge* OR "text messag*" OR advocacy OR misinformation OR "community health worker*") AND (uptake OR coverage OR hesitanc* OR acceptab* OR acceptance OR completion)

Epistemonikos

(Gardasil OR Cervarix OR Cecolin OR Cervavac OR Walrinvax)

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Google Scholar

"HPV vaccine" OR "HPV vaccination" OR "human papillomavirus vaccine" delivery OR "delivery strategies" OR rollout OR campaign 2026 filetype:pdf

Psycinfo

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