Supplementary Appendix

Table S1 PRISMA Checklist

Section / topic	#	Checklist item	Location where item is reported
TITLE			
Title	1	Identify the report as a systematic review, meta-analysis, or both.	Title
ABSTRACT			
Structured summary	2	Provide a structured summary including, as applicable: background; objectives; data sources; study eligibility criteria, participants, and interventions; study appraisal and synthesis methods; results; limitations; conclusions and implications of key findings; systematic review registration number.	Abstract
INTRODUCTION			
Rationale	3	Describe the rationale for the review in the context of what is already known.	Intro, par 4
Objectives	4	Provide an explicit statement of questions being addressed with reference to participants, interventions, comparisons, outcomes, and study design (PICOS).	Intro, par 5
METHODS			
Protocol and registration	5	Indicate if a review protocol exists, if and where it can be accessed (e.g., Web address), and, if available, provide registration information including registration number.	Methods, par 1
Eligibility criteria	6	Specify study characteristics (e.g., PICOS, length of follow-up) and report characteristics (e.g., years considered, language, publication status) used as criteria for eligibility, giving rationale.	Methods, par 1-2
Information sources	7	Describe all information sources (e.g., databases with dates of coverage, contact with study authors to identify additional studies) in the search and date last searched.	Methods, par 1
Search	8	Present full electronic search strategy for at least one database, including any limits used, such that it could be repeated.	Table S2-3
Study selection	9	State the process for selecting studies (i.e., screening, eligibility, included in systematic review, and, if applicable, included in the meta-analysis).	Methods, par 2
Data collection process	10	Describe method of data extraction from reports (e.g., piloted forms, independently, in duplicate) and any processes for obtaining and confirming data from investigators.	Methods, par 3
Data items	11	List and define all variables for which data were sought (e.g., PICOS, funding sources) and any assumptions and simplifications made.	Methods, par 4
Risk of bias in individual studies	12	Describe methods used for assessing risk of bias of individual studies (including specification of whether this was done at the study or outcome level), and how this information is to be used in any data synthesis.	NA
Summary measures	13	State the principal summary measures (e.g., risk ratio, difference in means).	Methods, par 3
Synthesis of results	14	Describe the methods of handling data and combining results of studies, if done, including measures of consistency (e.g., I^2) for each meta-analysis.	Methods, par 4
Risk of bias across studies	15	Specify any assessment of risk of bias that may affect the cumulative evidence (e.g., publication bias, selective reporting within studies).	NA
Additional analyses	16	Describe methods of additional analyses (e.g., sensitivity or subgroup analyses, meta-regression), if done, indicating which were pre-specified.	Methods, par 4
RESULTS			
Study selection	17	Give numbers of studies screened, assessed for eligibility, and included in the review, with reasons for exclusions at each stage, ideally with a flow diagram.	Figure 1
Study	18	For each study, present characteristics for which data were extracted (e.g., study size, PICOS, follow-up period) and provide the citations.	Results, par 1

characteristics			
Risk of bias within studies	19	Present data on risk of bias of each study and, if available, any outcome level assessment (see item 20).	NA
Results of individual studies	20	For all outcomes considered (benefits or harms), present, for each study: (a) simple summary data for each intervention group (b) effect estimates and confidence intervals, ideally with a forest plot.	Table 3
Synthesis of results	21	Present results of each meta-analysis done, including confidence intervals and measures of consistency.	NA
Risk of bias across studies	22	Present results of any assessment of risk of bias across studies.	NA
Additional analysis	23	Give results of additional analyses, if done (e.g., sensitivity or subgroup analyses, meta-regression	Results, par 5
DISCUSSION			
Summary of evidence	24	Summarize the main findings including the strength of evidence for each main outcome; consider their relevance to key groups (e.g., healthcare providers, users, and policy makers).	Discussion, par 1-2
Limitations	25	Discuss limitations at study and outcome level (e.g., risk of bias), and at review-level (e.g., incomplete retrieval of identified research, reporting bias).	Discussion, par 5
Conclusions	26	Provide a general interpretation of the results in the context of other evidence, and implications for future research.	Discussion, par 3-4
FUNDING			
Funding	27	Describe sources of funding for the systematic review and other support (e.g., supply of data); role of funders for the systematic review.	Acknowledgement

Intro: introduction; par: paragraph; NA: not applicable

Table S2 Search strategy and key terms in PubMed and EMBASE databases

	AND	**AND**	**AND**	**AND**
OR	Human papillomavirus	Vaccine	Cost-effectiveness	China
OR	HPV	Vaccination	Cost-benefit	
OR	Cervical cancer	Immune*	Cost-utility	
OR			Cost-effective	
OR			Model*	
OR			Economic evaluation	
OR			Pharmacoeconomic*	

The search was conducted by title/abstract.

Table S3 Search strategy and key terms in China National Knowledge Infrastructure and Wanfang databases

	AND	**AND**	**AND**	**AND**
OR	人乳头瘤病毒	疫苗	成本效用	中国
OR	HPV	免疫	成本收益	
OR	宫颈癌		成本效益	
OR			成本效果	
OR			模型分析	
OR			经济学评价	
OR			药物经济学评价	

The search was conducted by title/abstract

Table S4 Quality assessment of model reporting using CHEC-list

Checklist item	Canfell	Choi	Jiang	Levin	Liu	Luo P	Luo Y	Ma	Mo	Qie	Song	Sun	Zhang	Zou
1. Is the study population clearly described?	1	1	1	1	1	1	1	1	1	1	0	1	1	1
2. Are competing alternatives clearly described?	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3. Is a well-defined research question posed in answerable form?	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4. Is the economic study design appropriate to the stated objective?	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5. Is the chosen time horizon appropriate in order to include relevant costs and consequences?	1	1	1	1	1	0	1	1	1	0	1	1	1	1
6. Is the actual perspective chosen appropriate?	1	0	1	0	1	0	1	0	1	0	1	1	1	1
7. Are all important and relevant costs for each alternative identified?	1	1	1	1	1	1	1	1	1	1	1	1	1	1
8. Are all costs measured appropriately in physical units?	1	1	1	1	1	1	1	1	1	0	1	1	1	1
9. Are costs valued appropriately?	1	0	1	1	0	0	0	1	1	0	0	0	1	1
10. Are all important and relevant outcomes for each alternative identified?	1	1	1	1	1	1	1	1	1	1	1	1	1	1
11. Are all outcomes measured appropriately?	1	1	1	1	1	1	1	1	1	1	1	1	1	1
12. Are outcomes valued appropriately?	N/A	1	0	N/A	1	0	1	1	1	0	N/A	1	1	1
13. Is an incremental analysis of costs and outcomes of alternatives performed?	1	1	1	NA	1	1	1	1	1	1	1	1	1	1
14. Are all future costs and outcomes discounted appropriately?	1	1	1	0	1	1	1	1	1	1	1	1	1	1
15. Are all important variables, whose values are uncertain, appropriately subjected to sensitivity analysis?	1	1	1	1	0	1	1	1	1	0	1	1	1	1
16. Do the conclusions follow from the data reported?	1	1	1	1	1	1	1	1	1	1	1	1	1	1
17. Does the study discuss the generalizability of the results to other settings and patient/client groups?	1	1	0	1	1	0	1	0	1	0	0	0	1	1
18. Does the article indicate that there is no potential conflict of interest of study researcher(s) and funder(s)?	1	1	1	1	1	0	1	1	1	0	1	0	1	1
19. Are ethical and distributional issues discussed appropriately?	1	0	0	1	1	0	0	1	1	0	0	0	1	0
Total % of Yes	100%	84%	84%	88%	89%	63%	89%	89%	100%	53%	78%	79%	100%	95%

‘‘1”: meets the assessment criteria; “0”: does not meets the assessment criteria; N/A: not applicable.