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Appendix 1. Search Strategy in Pubmed database

"Panama"[Mesh] OR "Honduras"[Mesh] OR "Peru"[Mesh] OR "Guyana"[Mesh] OR "Suriname"[Mesh] OR "Cuba"[Mesh] OR "Belize"[Mesh] OR "Latin America"[Mesh] OR "South America"[Mesh] OR "Central America"[Mesh] AND "Mass Screening"[Mesh] OR "Early Detection of Cancer"[Mesh] OR "Diagnostic Screening Programs"[Mesh] OR "Early Diagnosis"[Mesh] OR *screening* OR "cytology"[Subheading] OR *cytology OR "Papanicolaou Test"[Mesh] OR "pap test" AND Coverage OR *coverage OR Participation* OR "Screening coverage "OR "Invitation coverage" OR "Up-to-date screening" OR adherence OR "uptake" OR "Effective screening" OR "Examination rate" AND "Uterine Cervical Neoplasms" "Papanicolaou Test"[Mesh] OR "Uterine Cervical Dysplasia"[Mesh] OR "Cervical Intraepithelial Neoplasia"[Mesh] OR "cervical cancer" OR "cervical precancer" OR "cervical precancerous lesions" OR "CIN2

Appendix 2. Estimated cervical cancer screening coverage until 2019 for women aged 35-45 years

Country	Target population in thousands	Previous year % (95% CI)	Previous 3 years % (95% CI)	Previous 5 years % (95% CI)	Ever in lifetime % (95% CI)
North America					
Bermuda	4·2	68 (67-70)	92 (91-94)	95 (93-97)	98 (96-100)
Canada	2770·1	43 (41-44)	82 (79-84)	87 (85-89)	91 (90-93)
United States of America	22731·5	46 (45-48)	76 (74-78)	82 (80-84)	88 (86-89)
Belize	27·7	25 (17-38)	43 (34-53)	50 (41-60)	68 (63-72)
Costa Rica	391·7	55 (52-58)	78 (74-81)	78 (74-82)	78 (75-82)
El Salvador	483·8	46 (44-48)	79 (76-81)	87 (85-89)	96 (93-98)
Guatemala	1168·9	31 (21-43)	51 (42-60)	60 (52-67)	72 (67-76)
Honduras	671·6	35 (31-38)	59 (54-64)	67 (62-72)	75 (70-79)
Mexico	10038·4	40 (39-41)	69 (61-76)	78 (68-85)	88 (77-96)
Nicaragua	508·4	40 (37-43)	70 (65-74)	79 (74-84)	89 (83-94)
Panama	317·5	44 (33-54)	68 (56-78)	77 (65-85)	87 (76-94)
Argentina	3399·6	52 (47-56)	78 (75-82)	82 (78-86)	89 (84-95)
Bolivia	760·7	21 (15-27)	47 (42-51)	53 (46-60)	63 (51-75)
Brazil	17883·3	12 (12-12)	35 (34-36)	41 (37-45)	58 (47-71)
Chile	1462·4	46 (46-46)	76 (75-77)	80 (78-83)	91 (86-96)
Colombia	3944·2	56 (54-57)	69 (63-76)	75 (67-82)	81 (71-91)
Ecuador	1248·9	28 (18-40)	48 (40-57)	55 (46-63)	70 (68-72)
Guyana	52·5	6 (2-12)	14 (12-17)	18 (16-20)	22 (21-24)
Paraguay	465·0	42 (38-46)	85 (77-92)	87 (79-95)	89 (81-97)
Peru	2488·2	15 (15-16)	61 (59-64)	76 (71-80)	90 (82-96)
Suriname	41·3	15 (7-26)	27 (16-39)	32 (20-45)	40 (26-56)
Uruguay	253·2	27 (27-27)	61 (60-61)	71 (70-72)	92 (91-93)
Venezuela	2157·0	25 (14-37)	40 (26-54)	46 (31-60)	55 (39-73)
Antigua & Barbuda	8·2	32 (21-45)	60 (49-71)	72 (60-82)	83 (71-92)
Bahamas	32·0	35 (24-47)	55 (47-63)	66 (60-71)	76 (75-77)
Barbados	21·6	60 (58-61)	84 (83-85)	90 (88-91)	96 (94-98)
Cuba	743·9	50 (44-58)	83 (77-90)	88 (81-96)	92 (84-101)
Dominica	5·1	33 (31-36)	63 (57-69)	74 (66-81)	85 (76-94)
Dominican Republic	756·5	52 (49-54)	79 (76-81)	85 (83-88)	92 (89-94)
Grenada	8·0	29 (28-31)	57 (53-61)	72 (67-78)	87 (80-94)
Haiti	772·3	2 (2-2)	5 (4-5)	8 (7-9)	11 (10-12)
Jamaica	219·1	29 (22-36)	62 (55-69)	75 (69-81)	88 (83-93)
Puerto Rico	223·3	52 (45-59)	84 (80-87)	88 (84-92)	92 (87-96)
Saint Kitts & Nevis	4·3	55 (52-57%)	77 (74-80)	84 (81-87)	90 (87-93)
Saint Lucia	15·1	34 (31-38)	65 (61-70)	79 (75-82)	92 (90-95)
Saint Vincent & the Grenadines	8·3	27 (25-28)	60 (57-62)	74 (72-77)	89 (86-92)
Trinidad & Tobago	120·4	24 (22-26)	48 (44-51)	59 (55-64)	71 (65-76)

Appendix 3. Bivariate analysis on the effect of context variables on screening coverage and cervical cancer mortality

Independent variable	Dependent variable: screening coverage (%)*			Dependent variable: cervical cancer mortality (ASR per 100,000)**		
	OR	CI 95%	p-value	RR	CI 95%	p-value
Income level			<0·001			<0·001
High	Ref	Ref				
Upper-middle	0·59	0·38-0·94		1·68	1·26-2·27	
Lower-middle	0·71	0·35-1·45		1·94	1·32-2·83	
Low	0·04	0·01-0·26		1·40	0·65-2·67	
Predominant Health System Type			0·03			0·99
SS/OP	Ref	Ref				
NHS/NHI	0·57	0·35-0·92		1·00	0·80-1·26	
Inequality-adjusted - HDI			0·15			<0·001
Very high	Ref	Ref				
High	0·81	0·20-3·31		3·33	1·26-11·46	
Medium	0·54	0·17-1·74		5·30	2·24-17·22	
Low	0·31	0·09-1·06		6·07	2·53-19·88	
Predominant Health System Financing			0·48			<0·001
Public revenues	Ref	Ref				
Mixed	0·97	0·54-1·73		1·14	0·88-1·50	
Private	1·92	0·56-6·57		0·27	0·09-0·60	
Predominant Health Services Provision			0·35			0·35
Public	Ref	Ref				
Public/private	0·48	0·09-2·45		1·4	0·72-3·28	
Health System Steering Role			0·82			0·07
National	Ref	Ref				
Territorial	1·07	0·58-1·98		0·75	0·54-1·02	
Public Health Expenditure Cat. (% THE)			0·22			0·002
< 70 %	Ref	Ref				
≥ 70 %	1·52	0·78-2·96		0·71	0·51-0·97	
Cervical Cancer Screening			0·21			0·23
One approach	Ref	Ref				
Different approaches - same population	1·28	0·76-2·18		1·07	0·83-1·98	
Different approaches - different populations	0·90	0·43-1·91		1·43	1·02-1·98	
No program	3.03	0.91-10.04		1·01	0·47-1·88	
Screen treat approach			0·31			<0·001
Yes	Ref	Ref				
No/no program	1·31	0·78-2·20		0·62	0·49-0·78	
Public Health Expenditure (% THE) 2018	1·02	1·00-1·04	0·03	1·00	0·99-1·00	0·45
% Rural population (2019)	0·35	0·11-1·06	0·07	2·93	1·69-5·02	<0·001
UHC service capacity index	1·02	1·01-1·04	0·003	0·99	0·98-0·99	<0·001
Coverage 25-65, 3y				0·47	0·28-0·79	0·004

*Beta-regression model. **Poisson-regression model. Coverage for women aged 25 - 65 years, three-years interval. OR: Odds Ratio. RR: Rate Ratio. CI: Confidence Interval. SS: health systems based on social security for workers and public health provision for the remaining population. OP: predominantly out of pocket health services provision including private insurance. NHS: health systems with unique payer. NHI: national health insurance (individual) based on public funding but public and private providers. Inequality-Adjusted HDI: Inequality-Adjusted Human Development Index. THE: total health expenditure . UHC: Universal Health Coverage. Approaches to screening refers to the use of only one or different screening algorithms including different screening tests. For cervical cancer mortality missing categories are not included in the regression models.

Appendix 4. Data sources and eligibility criteria

We systematically reviewed until October 30th, 2020 the scientific literature, government websites and official documentation to identify national official recommendations and coverage data for cervical cancer screening. For each country, the search algorithm included an initial search in academic and official channels for information on cancer control plans, screening policies and coverage statistics (e.g., health departments and national epidemiological institutions). The search was followed by a systematic search in Pubmed and a global review with internet search engines to look for additional Web-based materials. See search terms and languages in Appendix 1. Reference lists of included documents were also reviewed to identify additional sources. Data from recognized international sources such as the USAID Demographic and Health Surveys Program or the WHO World Health Surveys were also included [https://dhsprogram.com/, https://www.who.int/]. All retrieved information was also cross-checked and supplemented with official responses to the WHO NCD Country Capacity Survey (CCS) 2019 and unpublished WHO STEPS survey data [https://www.who.int/].

Eligibility criteria included a detailed description of the national official cervical cancer screening recommendations (either as a law, or a governmental regulation, decision, directive, or recommendation). Countries with no identifiable official recommendations were considered to have no screening programmes. We retrieved information on the year of introduction, the existence of individual invitation to participate in screening, financing of screening tests, primary screening and triage tests used, target ages to begin and end screening and screening intervals, use of self-sampling, and use of "screen-and-treat" approaches.

Screening coverage data could be derived from administrative or survey data, with no restrictions on the year of collection, but had to meet a set of inclusion criteria based on quality and representativeness for inclusion. Only national population-based screening data representative of the country situation in 2019 entered the final database. The criteria for data representativeness were based in the absence of major changes in the screening recommendations characteristics, in the healthcare system, or in the income level since data collection. Country-specific coverages were collected as disaggregated as possible by age and for any available screening interval. When multiple sources were available, administrative data was prioritised in countries with organised programmes and accurate registries, and survey data was prioritised in countries with opportunistic screening or with no centralised registries. The most recent data and the most disaggregated data by age groups was selected when more than one representative estimation was available for a given country.