THE LANCET Global Health

Supplementary appendix

This appendix formed part of the original submission and has been peer reviewed. We post it as supplied by the authors.

Appendix 1. Full list of calculations used in the model.

Life expectancy

Life expectancy at each year of life was calculated from mortality risks using the following life tables formulae:

Probability of dying between age i and $(i +1)$ (mortality risk) is given by $qx(i)$

Probability of surviving from age i to $(i +1)$, $px(i) = 1 - qx(i)$

Proportion of cohort surviving to age i, $lx(i)$ is given by $lx(1) = 1$; $lx(i +1) = lx(i) \times px(i)$ for $i > 1$

Person-years alive between age i and $(i +1)$, $Lx(i)$ is given by $Lx(i +1) = (lx(i +1) + lx(i +2))/2$ for $i < 101$, $Lx(101) = lx(101)/2$

Person-years alive after age i, $Tx(i)$ is given by $Tx(1) = Lx(1) + Lx(2) + ... + Lx(101)$; $Tx(i +1) = Tx(i) - Lx(i)$

Life expectancy at age i, $Ex(i)=Tx(i)/Lx(i)$

Vaccine impact

For each year of age i ($0 \leq i \leq 101$),

$p(i)$ = proportion of cervical cancers acquired at age i due to HPV 16/18

$x(i)$ = overall cervical cancer incidence at age i prior to vaccination

v_1 = vaccine efficacy against HPV 16/18

v_2 = vaccine efficacy against HPV types other than 16/18

c = 3-dose HPV vaccine coverage prior to sexual debut

$m(i)$ = 5-year mortality rate for cervical cancer acquired at age i

Number of cancers prevented at age i, $C(i) = x(i) \times [v_1 p(i) + v_2 (1 - p(i))] \times c$

Number of deaths prevented at age i, $M(i) = x(i) \times [v_1 p(i) + v_2 (1 - p(i))] \times c \times m(i)$

Economic outcomes

a=number of DALYs due to a non-fatal cervical cancer episode

b=cost of treating one case of cervical cancer

i_0=age of routine vaccination

d=discount rate

Number of life years saved by vaccination $= M(i) \times Ex(i)$

Number of DALYs prevented by vaccination $= M(i) \times Ex(i) + C(i) \times d$

Cost saved by vaccination $= C(i) \times b$

Discounted life expectancy at age i, $dEx(i) = \sum_{j=i0}^{i}(1+d)^{-(\underline{j}-i0)} + (Ex(i) - \underline{j})^{-(\bar{j}-i0)}$

Discounted life years saved by vaccination $= M(i) \times dEx(i) \times (1+d)^{-(i - i_0)}$

Discounted DALYs prevented by vaccination $= (M(i) \times dEx(i) + C(i) \times d) \times (1+d)^{-(i - i_0)}$

Appendix 2. Parameters used in the validation exercise and the full analysis, with justification and assessment of quality.

Validation data set. All cost-effectiveness analyses of vaccinating girls in early adolescence reported in a 2013 review by Fesenfeld and co-workers [1] were initially considered for the validation exercise. Analyses of other vaccination options (including catch-up programmes, vaccination of older women and male vaccination) were not considered. One study [2] which considered 72 GAVI-eligible countries in a single analysis was treated separately because the number of comparison data points in that study exceeded the other studies combined. Three other studies (one covering 22 countries in Asia [3], one covering 28 countries in Latin America [4] and one comparing rotavirus and HPV vaccination in 72 GAVI-eligible countries [5]) used essentially the same model as the original GAVI-72 study [2], with many overlapping countries, so these were not considered as they would be expected to perform similarly against PRIME. An analysis covering most WHO member-states [6] did not report country-level results and so was not considered. All 17 remaining studies (covering 26 countries) were included in the validation exercise.

If a paper contained several scenarios with different assumptions, then the scenario regarded as base case was chosen. If no scenario was regarded as the base case then the scenario with the following attributes was chosen: health care provider or purchaser perspective, lifelong vaccine duration, no screening, lowest vaccine cost reported (or vaccine cost of I$25 per fully vaccinated girl for Goldie et al. [2]), bivalent vaccine, 100% efficacy against vaccine-type disease, no cross-protection.

In general, PRIME was parameterised using the parameters in the individual study it as being compared against. A few parameters were not taken from individual studies because they were poorly reported in many studies, and because the diversity in the way this was calculated limited comparability between studies (eg. cancer stages). These were: % of cancer due to HPV 16/18, birth cohort size, all-cause mortality and DALYs incurred per cancer episode.

Costs were converted into 2011 USD using the methodology described in Fesenfeld et al. (2013)[1].

The table below shows the source of parameters used in the validation exercise and global projection:

Parameter	Validation	Global projection
DALYs due to cervical cancer	A disability weight of 0·08 for cervical cancer diagnosis, therapy and control over one year was assumed, based on the 2001 Global Burden of Disease study [7]. For non-fatal cases, an additional weight of 0·04 – 0·17 (depending on the WHO mortality stratum of the country) for four years was assumed to account for long-term sequelae (infertility and incontinence). For fatal cases, an additional weight of 0·78 for one year was assumed to account for 6 months of preterminal metastasis stage cancer and 6 months of terminal stage cancer.	
Vaccination coverage	Coverage by dose reported in the original study. Exceptions:	100% for all three doses for illustrative purposes. This is

	• One study [8] assumed that coverage of dose one, two and three was 70%, 55% and 40% respectively, with corresponding efficacy of 30%, 90% and 100%. We converted this into an equivalent three dose coverage of (40% + 55% + 70%)/3 = 55% and equivalent efficacy of ((70% - 55%) x 30% + (55% - 40%) x 90% + 40% x 100%)/70% = 82.7%. • One paper [9] assumed that vaccination coverage would increase from 0% to 70% over the first 5 years and remain at 70% thereafter; we assumed coverage of 70%.	higher than reported in many settings where HPV vaccination has been introduced, but has no effect on cost-effectiveness or impact per 100,000 vaccinated in a static model.
Vaccine efficacy	Vaccine efficacy against HPV 16/18 reported in the original study. Vaccine efficacy against any other type assumed to be 0%. Exceptions: • Two studies [10,11] used vaccine efficacy figures against cancer due to any HPV type, rather than against disease due to HPV 16 and 18 only. However, since the reported efficacy against cancer regardless of HPV type was close to [11] or greater than [10,11] the % of cancers due to HPV 16/18 (based on IARC data), we assumed that vaccine efficacy against HPV 16/18 was 100%. • Two studies [12,13] assumed vaccine efficacy of 95%; we assumed that this applied to vaccine-type disease only. • One study [14] did not report vaccine efficacy so we assumed it was 100%.	100% against cervical cancer caused by HPV types 16 and 18; 0% against any other type.
Current and future size of vaccination cohort	As used in the original study (although this does not affect the cost-effectiveness ratio).	Data from the United Nations Population Division [15]. The size of the 10-14 year old age group for females (medium fertility variant) was divided by five to obtain an estimate for the number of 12 year old girls. Data from 2012 was used as the base case.
Age at vaccination	Vaccination was assumed to occur before sexual debut in all countries. The age of routine	Assumed to be at age 12 and before sexual debut.

	vaccination reported in the original study was used. For studies [8,16-19] that reported assuming that vaccination occurred "before the age of 12", we assumed that vaccination took place at 11 years of age.	
Vaccination cost	Cost per fully immunised girl used in the original study if given, otherwise three times vaccine dose cost plus any administration costs (if stated). For the comparison with the GAVI-72 study [2], the scenario with cost of I$25 per vaccinated girl was used. Costs of boosters were not incorporated.	Total of vaccine procurement costs and delivery costs. (i) Vaccine procurement costs: For GAVI eligible countries set to an indicative price of $4·50/dose offered to GAVI [20]; for PAHO and middle income countries set to 2013 bivalent vaccine price from PAHO Revolving Fund Vaccine Prices [21]; and high income countries set to US retail vaccine price [22]. (ii) Vaccine delivery costs: Costing studies in Tanzania, Bhutan and Uganda suggest that the cost of scaling up HPV vaccine delivery to a nationwide programme may range from $4·56 to $5·27 per fully immunised girl[23]. In high income countries, costs may be substantially higher; for example $9 per dose in a US study [24] and £4·37 per dose in a UK study [25]. Hence we assumed delivery costs per fully immunised girl of $5, $15 and $25 for low, middle and high income countries respectively.
Cancer treatment costs	Cost per episode, over lifetime, as recorded in the paper. If a range of costs (eg. by stage at detection or by time of treatment) was presented, the average of the highest and lowest cost was taken. In one case [26], lifetime cancer costs were not presented, so costs as for the global analysis used	The stage distribution of cancer was estimated from the distribution of 15,081 patients by stage in FIGO's 26th Annual Report on the Results of Treatment in Gynecological Cancer[27]. Reporting centres were

	instead. For the GAVI-72 study [2], treatment costs for Guinea appear to be misprinted; reported costs are I\$5682-I\$7047, which are higher than any other country examined and more than twice the next highest country (Zimbabwe; I\$2717-I\$3370). Hence costs for Guinea-Bissau (I\$570-I\$897) were used instead.	aggregated by WHO-CHOICE region to get separate figures for each region. Cost of cancer treatment for cancers detected at each stage in each of 14 WHO-CHOICE regions was obtained from a WHO-CHOICE study [6] and personal communication from Gary Ginsberg. These included facility, staff, medical device and pharmaceutical costs. In a sensitivity analysis, regional costs were further adjusted for country-level GDP per capita (see below). Societal (productivity) costs were not considered.
GDP per capita	GDP per capita in 2011 US\$ from the World Bank [28].	
Cervical cancer incidence	- If age-dependent cervical cancer incidence (either as a direct model input, model calibration target or failing that, as model output) was not presented in numerical form, GLOBOCAN 2008 data[29] was used. - If bounds were used for calibration targets [16,19], then the midpoint was taken. - If lifetime or overall cancer incidence was available [9,11,30,31], then GLOBOCAN 2008 data was summed over all age groups multiplied up or down to match. - If no figures were given but a graph was shown [10,26,32,33], this was digitised using Engauge Digitizer version 4.1[http://digitizer.sourceforge.net/]. - One paper [14] had cervical cancer incidence at about 10 times the average of the other groups. It was assumed this was a misprint, and hence cancer incidence in that paper was divided by 10.	Incidence by age interpolated from cervical cancer incidence by age group from GLOBOCAN 2012[34].
Cervical	Because cervical cancer mortality is often not	Cervical cancer mortality by

cancer mortality	well reported in papers in the literature, we instead use GLOBOCAN 2008 cervical cancer mortality figures[29] multiplied by the ratio of cervical cancer incidence in the paper to cervical cancer incidence in GLOBOCAN 2008.	age from GLOBOCAN 2012[34].
All cause mortality	All cause mortality in 2009 from the World Health Organization[35].	
% of cervical cancer due to HPV 16/18	Data by geographical region in a meta-analysis [36].	
Discount rate	As used in the original study. In one paper [8] the discount rate was not stated; we assumed that it was 3% based on the rate used in other papers by the same group.	3% for costs and benefits [37].

Adjustment of regional cancer treatment costs for country-level GDP per capita

In a sensitivity analysis, cancer treatment costs were adjusted for within-region income differences. To do this, we stratified countries within each region by quintile according to GDP per capita (in 2011 USD). Treatment costs were then multiplied by an adjustment factor corresponding to the quintile of the country:

Quintile	Percentage range	Cost multiplier
1	[0, 20%)	60%
2	[20, 40%)	80%
3	[40, 60%)	100% (no adjustment)
4	[60, 80%)	120%
5	[80, 100%]	140%

Assessment of the quality of data informing model predictions.

HPV type distribution in cervical cancer. HPV type distribution was obtained in a meta-analysis stratified by geographical region [36]. Where the meta-analysis included data from the country being analysed we judged data quality as "satisfactory", otherwise it was judged as "unsatisfactory".

Cervical cancer stage at diagnosis. The proportion of cancers detected at the local, regional and distant stage were obtained from a FIGO report [27] and aggregated by WHO-CHOICE region. Where the analysis included data from the country being analysed we judged data quality as "satisfactory", otherwise it was judged as "unsatisfactory".

Cervical cancer incidence. Incidence by age was interpolated from cervical cancer incidence by age group from GLOBOCAN 2012 [34]. GLOBOCAN 2012 estimates are rated according to two criteria: availability of data and quality of methods (see http://globocan.iarc.fr/Pages/DataSource_and_methods.aspx for further details). When data availability was given a rating of A-D (on a scale of A-G; A-D represents high quality and/or

national data) it was deemed "satisfactory". When methods quality was given a rating of 1-2 (on a scale of 1-9; 1-2 represents rates projected to or applied to 2012 populations) it was deemed "satisfactory". For the overall data to be "satisfactory", it needed to be deemed "satisfactory" for both these categories; otherwise it was deemed "unsatisfactory".

Cervical cancer mortality. Cancer mortality by age was interpolated from cervical cancer mortality by age group from GLOBOCAN 2012[34]. GLOBOCAN 2012 estimates are rated according to two criteria: availability of data and quality of methods (see http://globocan.iarc.fr/Pages/DataSource_and_methods.aspx for further details). When data availability was given a rating of 1-2 (on a scale of 1-6; 1-2 represent high/medium quality vital registration data) it was deemed "satisfactory". When methods quality was given a rating of 1-2 (on a scale of 1-6; 1-2 represents rates projected to or applied to 2012 populations) it was deemed satisfactory. For the overall data to be satisfactory, it needed to be deemed satisfactory for both these categories.

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Appendix 3. Validation of PRIME results against other cost-effectiveness analyses of HPV vaccination in LMICs (Figure 1 of main manuscript)

Validation against analyses in 26 LMICs examined in 17 studies reviewed by Fesenfeld et al. (2013)

	Country	Code	First author	Year	Paper	ICER (vs no prevention)	ICER (vs screening)	Denominator	GDP per capita	PRIME Cost per life year saved	PRIME Cost per DALY prevented	Very cost-effective in which model?
1	Kenya	KE	Campos	2012	Health and economic impact of HPV 16/18 vaccination and cervical cancer screening in Eastern Africa	184	Not applicable	Life years	808	62.9	59.3	Both
2	Mozambique	MZ	Campos	2012	Health and economic impact of HPV 16/18 vaccination and cervical cancer screening in Eastern Africa	92	Not applicable	Life years	535	69.8	65.3	Both
3	Tanzania	TZ	Campos	2012	Health and economic impact of HPV 16/18 vaccination and cervical cancer screening in Eastern Africa	Cost saving	Not applicable	Life years	532	28.1	26.4	Both
4	Uganda	UG	Campos	2012	Health and economic impact of HPV 16/18 vaccination and cervical cancer screening in Eastern Africa	23	Not applicable	Life years	487	6.77	6.39	Both
5	Rural China	CN	Canfell	2011	Prevention of cervical cancer in rural China: Evaluation of HPV vaccination and primary HPV screening	2926	Not applicable	Life years	5445	948	891	Both

					strategies							
6	Argentina	AR	Colantonio	2009	Cost-effectiveness analysis of a cervical cancer vaccine in five Latin American countries	Not applicable	19321	QALYs	10942	23800	22400	Neither
7	Brazil	BR	Colantonio	2009	Cost-effectiveness analysis of a cervical cancer vaccine in five Latin American countries	Not applicable	18175	QALYs	12594	25300	23800	Neither
8	Chile	CL	Colantonio	2009	Cost-effectiveness analysis of a cervical cancer vaccine in five Latin American countries	Not applicable	28187	QALYs	14394	36900	34700	Neither
9	Mexico	MX	Colantonio	2009	Cost-effectiveness analysis of a cervical cancer vaccine in five Latin American countries	Not applicable	16169	QALYs	10047	20900	19700	Neither
10	Peru	PE	Colantonio	2009	Cost-effectiveness analysis of a cervical cancer vaccine in five Latin American countries	Not applicable	10263	QALYs	6018	18000	16800	Neither
11	India	IN	Diaz	2008	Health and economic impact of HPV 16 and 18 vaccination and cercival cancer screening in India	Cost saving	Not applicable	Life years	1489	Cost saving	Cost saving	Both
12	Malaysia	MY	Ezat	2010	Cost-effectiveness of HPV Vaccination in thr Prevention of Cervical Cancer in Malaysia	18603	Not applicable	QALYs	9977	13300	12100	Neither
13	Malaysia	MY	Ezat	2010	Comparative Cost-Effectiveness of HPV Vaccines in the Prevention of Cervical	4158	Not applicable	QALYs	9977	Cost saving	Cost saving	Both

#	Country	Code	Author	Year	Title							
					Cancer in Malaysia							
14	Brazil	BR	Goldie	2007	Cost-effectiveness of HPV 16, 18 vaccination in Brazil	Cost saving	Not applicable	Life years	12594	-258	-242	Both
15	Peru	PE	Gutierrez-Aguado	2011	Costo-utilidad de la vacuna contra el virus de papiloma humano en mujeres peruanas	11717	Not applicable	QALYs	6018	2590	2390	PRIME
16	Mexico	MX	Gutierrez-Delgado	2008	Relación costo-efectividad de las intervenciones preventivas contra el cáncer cervical en mujeres mexicanas	11927	11631	DALYs	10047	13400	12600	Neither
17	Mexico	MX	Insinga	2007	Cost-effectiveness of quadrivalent human papillomavirus (HPV) vaccination in Mexico: A transmission-dynamic model-based evaluation	na	4502	QALYs	10047	8600	8110	Both
18	Vietnam	VN	Kim	2008	Exploring the cost-effectiveness of HPV prevention in Vietnam: Insights for evidence-based cervical cancer prevention policy	849	Not applicable	Life years	1407	757	710	Both
19	Vietnam	VN	Kim	2008	Exploring the cost-effectiveness of HPV prevention in Vietnam: Insights for evidence-based cervical cancer prevention policy	26	Not applicable	Life years	1407	48.9	46	Both
20	Thailand	TH	Praditsitthikorn	2011	Economic Evaluation of Policy Options for Prevention and Control of Cervical Cancer in Thailand	12642	16000	QALYs	4972	27400	25600	Neither
21	Mexico	MX	Reynales	2009	Cost-effectiveness	116	Not	Life	10047	Cost	Cost	Both

#	Country	Code	Author	Year	Title							
			- Shigematsu		Analysis of a quadrivalent Human Papilloma Virus Vaccine in Mexico		applicable	years		saving	saving	
22	Thailand	TH	Sharma	2011	Cost-effectiveness of human papillomavirus vaccination and cercical cancer screening in Thailand	Cost saving	Not applicable	Life years	4972	Cost saving	Cost saving	Both
23	South Africa	ZA	Sinanovic	2009	The potential cost-effectiveness of adding a human papillomavirus vaccine to the cervical cancer screening programme in South Africa	Not applicable	1521	QALYs	8070	25200	23200	Paper
24	Chile	CL	Suares	2008	A multi-regional analysis assessing the impact of vaccine characteristics and alternative vaccination scenarios	Not applicable	33309	QALYs	14393	62300	58300	Neither
25	Poland	PL	Suares	2008	A multi-regional analysis assessing the impact of vaccine characteristics and alternative vaccination scenarios	Not applicable	35602	QALYs	13463	37200	35100	Neither
26	Thailand	TH	Termrungruanglert	2012	Cost and Effectiveness Evaluation of Prophylactic HPV Vaccine in Developing Countries	8890	Not applicable	QALYs	4972	8260	7700	Neither

Validation against Goldie et al. (2008)

	Country	Code	GNI per capita	Goldie cost per DALY prevented	PRIME cost per DALY prevented
1	AFGHANISTAN	AF	1,060	1410	1626
2	ANGOLA	AO	5,290	450	212
3	ARMENIA	AM	6,140	310	365
4	AZERBAIJAN	AZ	9,020	720	929
5	BANGLADESH	BD	1,940	240	312
6	BENIN	BJ	1,630	270	305
7	BHUTAN	BT	5,480	250	354
8	BOLIVIA	BO	4,920	240	90
9	BURKINA FASO	BF	1,310	460	298
10	BURUNDI	BI	610	220	224
11	CAMBODIA	KH	2,260	210	266
12	CAMEROON	CM	2,360	340	210
13	CENTRAL AFRICAN REPUBLIC	CF	810	800	502
14	CHAD	TD	1,370	660	499
15	COMOROS	KM	1,120	90	135
16	CONGO	CG	3,280	430	320
17	DR CONGO	CD	350	550	364
18	CÔTE D'IVOIRE	CI	1,730	390	231
19	CUBA	CU	11,823	390	390
20	DJIBOUTI	DJ	2,450	120	139
21	ERITREA	ER	580	120	118
22	ETHIOPIA	ET	1,110	190	271
23	GEORGIA	GE	5,390	310	390
24	GHANA	GH	1,820	310	151
25	GUINEA	GN	1,050	580	391
26	GUINEA-BISSAU	GW	1,250	240	183
27	GUYANA	GY	3,460	170	41
28	HAITI	HT	1,190	110	108
29	HONDURAS	HN	3,840	340	257
30	INDIA	IN	3,620	250	308
31	INDONESIA	ID	4,530	360	564
32	KENYA	KE	1,720	320	332
33	KIRIBATI	KI	3,480	780	1139
34	DPR KOREA	KP	7,312	420	465
35	KYRGYZSTAN	KG	2,290	280	338
36	LAO PDR	LA	2,600	520	638
37	LESOTHO	LS	2,070	270	64

38	LIBERIA	LR	520	390	218
39	MADAGASCAR	MG	950	140	135
40	MALAWI	MW	870	260	243
41	MALI	ML	1,050	550	281
42	MAURITANIA	MR	2,410	310	187
43	MOLDOVA	MD	3,670	320	391
44	MONGOLIA	MN	4,360	470	756
45	MOZAMBIQUE	MZ	980	430	472
46	MYANMAR	MM	7,312	260	394
47	NEPAL	NP	1,260	270	267
48	NICARAGUA	NI	2,840	120	49
49	NIGER	NE	720	690	426
50	NIGERIA	NG	2,300	1080	673
51	PAKISTAN	PK	2,880	1430	1368
52	PAPUA NEW GUINEA	PG	2,590	140	138
53	RWANDA	RW	1,240	130	110
54	SAO TOME AND PRINCIPE	ST	2,080	380	112
55	SENEGAL	SN	1,960	240	85
56	SIERRA LEONE	SL	850	580	426
57	SOLOMON ISLANDS	SB	2,360	130	148
58	SOMALIA	SO	10,866	190	252
59	SRI LANKA	LK	5,560	370	525
60	SUDAN	SD	2,020	660	728
61	TAJIKISTAN	TJ	2,120	710	905
62	TANZANIA	TZ	1,510	160	134
63	GAMBIA	GM	2,060	290	171
64	TIMOR-LESTE	TL	5,210	410	557
65	TOGO	TG	1,030	360	212
66	UGANDA	UG	1,320	100	149
67	UKRAINE	UA	7,080	390	566
68	UZBEKISTAN	UZ	3,440	590	784
69	VIET NAM	VN	3,260	1200	1473
70	VIET NAM	VN	3,260	250	267
71	YEMEN	YE	2,180	1380	1313
72	ZAMBIA	ZM	1,490	220	215
73	ZIMBABWE	ZW	2,233	140	109

Appendix 4. PRIME projections for vaccinating 12-year old girls in 179 countries

	Country	Code	Cohort size ('000s)	Vaccine cost ($m)	Net cost ($m)	Cancers prevented	Deaths prevented	GDP per capita (US$2011)	Cost per life year saved	Cost per DALY prevented	Conclusion	Cancers prevented per 100,000 girls vaccinated
1	AFGHANISTAN	AF	432.0	8.6	8.0	1780	1470	1200	983	928	Very CE	516
2	ALBANIA	AL	25.3	1.4	1.4	89.7	35.4	8940	5870	5430	Very CE	444
3	ALGERIA	DZ	290.0	16.1	14.5	2140	1020	8720	4250	3830	Very CE	919
4	ANGOLA	AO	269.0	8.1	4.1	5200	3320	5930	401	374	Very CE	2420
5	ARGENTINA	AR	327.0	18.1	13.7	5010	2360	17700	1030	971	Very CE	1910
6	ARMENIA	AM	17.4	0.5	0.4	156	68.1	5830	927	865	Very CE	1130
7	AUSTRALIA	AU	138.0	57.1	55.8	642	308	39400	39700	37400	Very CE	583
8	AUSTRIA	AT	41.5	17.2	16.9	211	114	42200	34700	32700	Very CE	636
9	AZERBAIJAN	AZ	48.3	1.5	1.2	322	148	10100	1640	1510	Very CE	833
10	BAHAMAS	BS	2.6	1.1	1.0	43	17.3	32200	13100	12000	Very CE	2090
11	BAHRAIN	BH	8.0	3.3	3.3	49.7	10.5	23700	126000	101000	Not CE	776
12	BANGLADESH	BD	1560.0	31.1	25.9	17700	11800	1790	537	500	Very CE	1420
13	BARBADOS	BB	1.6	0.7	0.6	26.9	10.6	19300	9070	8360	Very CE	2080
14	BELARUS	BY	43.7	2.4	2.2	425	172	15000	1860	1730	Very CE	1220
15	BELGIUM	BE	58.2	24.1	23.5	382	129	38600	41600	38400	Very CE	821
16	BELIZE	BZ	3.8	0.2	0.2	97.4	59.1	6720	821	763	Very CE	3240
17	BENIN	BJ	115.0	2.3	1.3	1920	1340	1630	414	384	Very CE	2080
18	BHUTAN	BT	7.0	0.2	0.2	51	30.4	5810	1180	1100	Very CE	913
19	BOLIVIA	BO	114.0	3.4	1.0	4350	2470	5130	264	242	Very CE	4790
20	BOSNIA AND HERZEGOVINA	BA	20.0	1.1	1.0	200	55.9	9090	4200	3640	Very CE	1250
21	BOTSWANA	BW	21.1	1.2	0.9	395	226	14800	1260	1140	Very CE	2330
22	BRAZIL	BR	1710.0	94.9	73.4	24100	12200	11700	1370	1290	Very CE	1760
23	BRUNEI DARUSSALAM	BN	3.1	1.3	1.2	42.6	19.2	50500	13800	13000	Very CE	1710

24	BULGARIA	BG	30.8	1.7	1.3	548	191	14600	1120	1040	Very CE	2230
25	BURKINA FASO	BF	216.0	4.3	3.1	2810	2400	1310	358	338	Very CE	1620
26	BURUNDI	BI	97.5	2.0	1.1	2660	2270	608	158	150	Very CE	3410
27	CAMBODIA	KH	146.0	2.9	2.0	2420	1560	2370	441	410	Very CE	2070
28	CAMEROON	CM	236.0	7.1	5.1	3110	1890	2380	624	581	Very CE	1650
29	CANADA	CA	182.0	75.6	73.4	866	370	40400	38200	36000	Very CE	594
30	CAPE VERDE	CV	5.3	0.3	0.2	150	78.1	4120	955	873	Very CE	3540
31	CENTRAL AFRICAN REPUBLIC	CF	55.8	1.1	0.9	459	344	816	695	651	Very CE	1030
32	CHAD	TD	149.0	3.0	2.3	1200	966	1530	635	597	Very CE	1000
33	CHILE	CL	126.0	7.0	5.6	1370	788	17300	1830	1710	Very CE	1360
34	CHINA	CN	8210.0	455.0	419.0	39600	25000	8470	3440	3210	Very CE	603
35	COLOMBIA	CO	430.0	23.9	19.7	6970	3690	10100	1400	1310	Very CE	2020
36	COMOROS	KM	9.1	0.2	0.0	342	241	1120	96.9	91.2	Very CE	4690
37	CONGO	CG	49.5	1.5	1.0	684	366	4430	982	896	Very CE	1730
38	CONGO, THE DEMOCRATIC REPUBLIC OF THE	CD	905.0	18.1	13.4	14100	12000	375	312	295	Very CE	1950
39	COSTA RICA	CR	39.3	2.2	1.9	372	223	12200	2240	2080	Very CE	1180
40	CÔTE D'IVOIRE	CI	250.0	7.5	5.4	3120	2270	1800	741	692	Very CE	1560
41	CROATIA	HR	22.2	9.2	9.1	178	76.9	20000	22800	21500	CE	1000
42	CUBA	CU	67.2	2.0	1.1	840	421	12100	661	629	Very CE	1560
43	CYPRUS	CY	6.5	2.7	2.7	28.5	21.4	32100	63000	56600	CE	545
44	CZECH REPUBLIC	CZ	43.2	17.9	17.6	478	157	26000	22800	21200	Very CE	1380
45	DENMARK	DK	33.2	13.8	13.3	261	76.3	41000	33500	30900	Very CE	982
46	DJIBOUTI	DJ	10.0	0.3	0.2	119	83.8	2290	759	711	Very CE	1480
47	DOMINICAN REPUBLIC	DO	98.3	5.5	4.2	2170	1110	9860	1070	980	Very CE	2760
48	ECUADOR	EC	143.0	7.9	4.9	3960	2430	8490	725	673	Very CE	3460
49	EGYPT	EG	804.0	44.6	43.4	1650	876	6320	13900	12600	CE	257
50	EL SALVADOR	SV	67.5	3.7	3.3	1090	706	6880	829	780	Very CE	2030

51	EQUATORIAL GUINEA	GQ	8.2	3.4	3.3	97.9	57.8	36500	11200	10300	Very CE	1500
52	ERITREA	ER	63.6	1.3	0.9	820	668	589	404	381	Very CE	1610
53	ESTONIA	EE	6.0	2.5	2.4	88.7	29	21900	15400	13700	Very CE	1860
54	ETHIOPIA	ET	1110.0	22.2	17.3	14800	10700	1120	430	402	Very CE	1660
55	FIJI	FJ	7.6	0.4	0.2	202	135	4790	555	519	Very CE	3340
56	FINLAND	FI	28.6	11.9	11.7	93.3	36.5	38100	57400	53800	CE	408
57	FRANCE	FR	369.0	153.0	150.0	2110	946	35000	31700	29900	Very CE	715
58	GABON	GA	17.1	1.0	0.8	210	94.2	16000	1710	1560	Very CE	1530
59	GAMBIA	GM	23.2	0.5	0.2	503	377	2140	514	468	Very CE	2720
60	GEORGIA	GE	20.4	0.6	0.5	202	97.2	5500	917	857	Very CE	1240
61	GERMANY	DE	378.0	157.0	154.0	2390	714	39200	45900	42300	CE	789
62	GHANA	GH	281.0	8.4	3.9	6970	4060	1880	476	436	Very CE	3100
63	GREECE	GR	51.7	21.5	21.2	224	118	26900	35900	34000	CE	541
64	GRENADA	GD	0.9	0.1	0.0	10.1	5.08	11200	1690	1580	Very CE	1370
65	GUATEMALA	GT	186.0	10.3	8.7	2500	1730	4960	822	772	Very CE	1680
66	GUINEA	GN	125.0	2.5	1.7	2570	1970	1130	294	275	Very CE	2560
67	GUINEA-BISSAU	GW	18.7	0.4	0.3	267	204	1250	425	396	Very CE	1790
68	GUYANA	GY	9.3	0.3	0.1	303	170	3440	326	303	Very CE	4060
69	HAITI	HT	115.0	2.3	1.7	1730	1350	1180	585	530	Very CE	1880
70	HONDURAS	HN	89.0	2.7	1.9	1660	1000	4070	408	382	Very CE	2330
71	HUNGARY	HU	47.1	19.5	18.9	591	230	21600	12800	11600	Very CE	1570
72	ICELAND	IS	2.1	0.9	0.9	7.74	2.23	36100	411000	271000	Not CE	457
73	INDIA	IN	11700.0	352.0	280.0	183000	116000	3650	546	509	Very CE	1950
74	INDONESIA	ID	2110.0	63.2	46.8	25300	13900	4670	1000	929	Very CE	1500
75	IRAN, ISLAMIC REPUBLIC OF	IR	509.0	28.2	27.6	1390	707	11500	10800	9940	Very CE	341
76	IRAQ	IQ	406.0	22.5	21.7	950	582	3890	9880	9080	CE	293
77	IRELAND	IE	28.3	11.8	11.3	267	87.4	41500	20700	19300	Very CE	1180
78	ISRAEL	IL	62.5	25.9	25.7	261	190	27800	28300	27000	Very CE	521

79	ITALY	IT	273.0	113.0	111.0	1520	558	32900	40800	38100	CE	698
80	JAMAICA	JM	28.0	1.6	1.2	525	295	8060	926	867	Very CE	2340
81	JAPAN	JP	564.0	234.0	227.0	4550	1800	34300	21200	20100	Very CE	1010
82	JORDAN	JO	72.4	4.0	3.9	147	77.7	6010	11700	10800	CE	253
83	KAZAKHSTAN	KZ	105.0	5.8	4.6	1980	805	13200	1100	1000	Very CE	2360
84	KENYA	KE	509.0	10.2	3.1	12800	7510	1720	240	222	Very CE	3130
85	KOREA, DEMOCRATIC PEOPLE'S REPUBLIC OF	KP	191.0	3.8	2.8	1440	892	7360	483	457	Very CE	942
86	KOREA, REPUBLIC OF	KR	273.0	113.0	112.0	1780	656	30300	39300	35300	CE	811
87	KUWAIT	KW	21.2	8.8	8.7	85	46.4	54700	37500	35200	Very CE	502
88	KYRGYZSTAN	KG	48.0	1.0	0.7	745	420	2420	348	325	Very CE	1940
89	LAO PEOPLE'S DEMOCRATIC REPUBLIC	LA	71.7	2.2	1.9	562	374	2810	1190	1110	Very CE	980
90	LATVIA	LV	9.1	0.5	0.4	117	55	17700	1360	1260	Very CE	1620
91	LEBANON	LB	36.5	2.0	1.9	164	77.5	14700	6760	6180	Very CE	563
92	LESOTHO	LS	26.6	0.8	0.5	402	270	1720	720	657	Very CE	1890
93	LIBERIA	LR	50.9	1.0	0.7	849	703	577	325	305	Very CE	2090
94	LIBYAN ARAB JAMAHIRIYA	LY	57.8	3.2	2.7	598	296	16900	3310	3020	Very CE	1290
95	LITHUANIA	LT	15.6	0.9	0.6	301	111	20400	1050	959	Very CE	2410
96	LUXEMBOURG	LU	3.1	1.3	1.2	23.1	13.1	90000	36100	33900	Very CE	941
97	MACEDONIA, THE FORMER YUGOSLAV REPUBLIC OF	MK	12.1	0.7	0.6	120	64.2	11700	2030	1890	Very CE	1240
98	MADAGASCAR	MG	278.0	5.6	2.9	8380	5440	972	160	150	Very CE	3770
99	MALAWI	MW	199.0	4.0	1.9	6150	4150	918	117	110	Very CE	3870
100	MALAYSIA	MY	283.0	15.7	12.6	3390	1190	15600	2790	2520	Very CE	1500
101	MALDIVES	MV	2.8	0.2	0.1	25	15	8930	3210	2910	Very CE	1110

102	MALI	ML	206.0	4.1	2.0	5030	3860	1100	190	179	Very CE	3050
103	MALTA	MT	2.1	0.9	0.9	4.99	1.49	27300	208000	192000	Not CE	291
104	MAURITANIA	MR	41.9	0.8	0.4	773	534	2570	358	332	Very CE	2300
105	MAURITIUS	MU	9.9	0.5	0.4	145	101	14500	1600	1470	Very CE	1840
106	MEXICO	MX	1060.0	59.0	41.1	20100	9370	15300	1240	1140	Very CE	2360
107	MICRONESIA, FEDERATED STATES OF	FM	5.4	0.3	0.3	34.8	4.95	3440	21000	15100	Not CE	810
108	MOLDOVA, REPUBLIC OF	MD	17.8	0.5	0.4	268	128	3390	559	523	Very CE	1880
109	MONGOLIA	MN	22.4	0.7	0.4	380	176	4760	731	674	Very CE	2120
110	MONTENEGRO	ME	4.0	0.2	0.2	54.1	19.7	13600	1500	1370	Very CE	1690
111	MOROCCO	MA	288.0	16.0	13.2	3840	2280	4990	1700	1560	Very CE	1660
112	MOZAMBIQUE	MZ	313.0	6.3	1.5	8630	6790	982	101	96.1	Very CE	3440
113	MYANMAR	MM	416.0	8.3	4.8	5150	3600	7360	423	394	Very CE	1550
114	NAMIBIA	NA	362.0	20.1	17.6	3210	1660	6830	2470	2260	Very CE	1110
115	NEPAL	NP	359.0	7.2	5.7	5010	3500	1260	370	346	Very CE	1740
116	NETHERLANDS	NL	98.0	40.7	39.8	541	197	42800	39700	37200	Very CE	689
117	NEW ZEALAND	NZ	28.4	11.8	11.7	99.1	39.8	29900	67600	62300	CE	436
118	NICARAGUA	NI	63.9	1.9	1.2	1690	1130	2940	284	265	Very CE	3300
119	NIGER	NE	213.0	4.3	3.9	1010	859	732	825	785	CE	590
120	NIGERIA	NG	1960.0	58.8	40.3	28700	18200	2530	737	681	Very CE	1830
121	NORWAY	NO	30.2	12.5	12.1	227	91.9	61900	26900	25200	Very CE	940
122	OMAN	OM	22.4	9.3	9.2	118	66.6	28900	36900	34200	CE	662
123	PAKISTAN	PK	1960.0	58.8	55.0	10400	6770	2760	1590	1490	Very CE	662
124	PANAMA	PA	33.0	1.8	1.5	501	274	15700	1340	1240	Very CE	1900
125	PAPUA NEW GUINEA	PG	82.5	2.5	1.5	1790	1220	2700	269	256	Very CE	2720
126	PARAGUAY	PY	69.7	3.9	3.1	1790	1130	5420	657	615	Very CE	3210
127	PERU	PE	284.0	15.7	9.9	7650	3530	10300	852	775	Very CE	3370
128	PHILIPPINES	PH	1060.0	58.7	53.1	10800	6300	4140	1700	1590	Very CE	1270

129	POLAND	PL	180.0	74.6	73.1	1810	992	21300	14100	13200	Very CE	1260
130	PORTUGAL	PT	53.6	22.3	21.9	420	241	25400	18100	17200	Very CE	978
131	QATAR	QA	7.5	3.1	3.1	34.5	0	88900	#NAME?	783000	Not CE	577
132	ROMANIA	RO	107.0	5.9	4.0	2370	1070	15200	831	773	Very CE	2770
133	RUSSIAN FEDERATION	RU	632.0	35.0	29.1	6630	3230	21200	1470	1370	Very CE	1310
134	RWANDA	RW	132.0	2.6	0.9	3200	2110	1250	196	184	Very CE	3030
135	SAINT LUCIA	LC	1.5	0.1	0.1	16.1	8	9380	1740	1630	Very CE	1350
136	SAINT VINCENT AND THE GRENADINES	VC	1.0	0.1	0.0	10.4	5.08	10800	1800	1670	Very CE	1330
137	SAMOA	WS	2.2	0.1	0.1	24	5.31	4570	4550	3840	Very CE	1350
138	SAO TOME AND PRINCIPE	ST	2.1	0.1	0.0	55	39.1	2060	300	282	Very CE	3250
139	SAUDI ARABIA	SA	245.0	102.0	101.0	634	319	24400	88700	81200	Not CE	324
140	SENEGAL	SN	162.0	4.9	2.5	4440	3030	1980	319	298	Very CE	3430
141	SERBIA	RS	55.7	3.1	2.5	954	395	11900	1300	1190	Very CE	2140
142	SIERRA LEONE	SL	76.9	1.5	1.2	1090	945	877	370	348	Very CE	1770
143	SINGAPORE	SG	33.9	14.1	13.5	315	144	61100	26100	24500	Very CE	1160
144	SLOVAKIA	SK	26.4	11.0	10.7	331	138	24000	14200	13100	Very CE	1560
145	SLOVENIA	SI	8.9	3.7	3.6	68.2	34.1	27400	23200	21700	Very CE	964
146	SOLOMON ISLANDS	SB	6.3	0.2	0.1	126	94.7	2940	332	314	Very CE	2500
147	SOMALIA	SO	121.0	2.4	0.7	2070	1290	11100	323	299	Very CE	2130
148	SOUTH AFRICA	ZA	498.0	27.6	21.9	7360	4750	11000	1020	944	Very CE	1850
149	SPAIN	ES	210.0	87.1	85.8	1250	426	32400	33800	31800	Very CE	743
150	SRI LANKA	LK	157.0	4.7	4.1	1480	653	5620	2010	1820	Very CE	1170
151	SUDAN	SD	537.0	16.1	14.3	2910	2060	2140	2280	2100	Very CE	678
152	SURINAME	SR	5.1	0.3	0.2	152	83.4	7890	721	666	Very CE	3720
153	SWAZILAND	SZ	14.7	0.8	0.6	317	205	6100	1000	907	Very CE	2700
154	SWEDEN	SE	47.0	19.5	19.0	281	128	41300	36700	34100	Very CE	747

155	SWITZERLAND	CH	38.9	16.1	15.9	105	52.5	49200	76100	70800	CE	336
156	SYRIAN ARAB REPUBLIC	SY	245.0	13.6	13.3	597	342	5260	9490	8820	CE	304
157	TAJIKISTAN	TJ	81.6	1.6	1.5	512	291	2340	848	795	Very CE	784
158	TANZANIA, UNITED REPUBLIC OF	TZ	579.0	11.6	3.6	18200	11700	1520	188	174	Very CE	3930
159	THAILAND	TH	484.0	26.8	22.7	5400	3100	8700	1170	1110	Very CE	1400
160	TIMOR-LESTE	TL	15.9	0.5	0.4	161	121	1590	1350	1250	Very CE	1270
161	TOGO	TG	75.4	1.5	1.1	1040	725	1040	488	454	Very CE	1730
162	TONGA	TO	1.2	0.1	0.1	6.41	3.32	4670	3410	3160	Very CE	683
163	TRINIDAD AND TOBAGO	TT	8.8	3.6	3.4	186	108	26000	8140	7590	Very CE	2650
164	TUNISIA	TN	76.3	4.2	4.1	364	169	9420	6500	5970	Very CE	596
165	TURKEY	TR	628.0	34.8	32.7	2510	1270	17500	6130	5670	Very CE	500
166	TURKMENISTAN	TM	46.3	2.6	2.3	400	203	9180	2580	2370	Very CE	1080
167	UGANDA	UG	468.0	9.4	4.6	10700	6960	1350	217	203	Very CE	2860
168	UKRAINE	UA	192.0	5.8	4.8	2130	907	7250	695	649	Very CE	1390
169	UNITED ARAB EMIRATES	AE	43.3	18.0	17.5	400	10	48200	178000	122000	CE	1150
170	UNITED KINGDOM	GB	341.0	141.0	139.0	1640	619	35500	37800	35400	Very CE	602
171	UNITED STATES	US	1980.0	820.0	803.0	9530	5450	48400	25800	24500	Very CE	602
172	URUGUAY	UY	25.1	1.4	1.0	344	159	15200	1190	1110	Very CE	1710
173	UZBEKISTAN	UZ	258.0	7.7	6.9	2380	1300	3310	1020	950	Very CE	1150
174	VANUATU	VU	2.8	0.2	0.1	19.7	6.97	4630	2140	1980	Very CE	873
175	VENEZUELA	VE	273.0	15.2	9.4	6500	3390	12800	723	672	Very CE	2970
176	VIET NAM	VN	638.0	19.1	17.2	5010	2900	3440	1180	1100	Very CE	981
177	YEMEN	YE	316.0	9.5	9.1	829	610	2350	4740	4380	CE	328
178	ZAMBIA	ZM	177.0	5.3	2.5	4330	2830	1620	267	250	Very CE	3060
179	ZIMBABWE	ZW	157.0	3.1	1.1	3650	2440	2360	297	275	Very CE	2910
180	UZBEKISTAN	UZ	587.0	17.6	14.8	4830	2580	3310	1181	1110	Very CE	1028

181	VANUATU	VU	7.0	0.4	0.3	90.1	59.4	4631	1252	1177	Very CE	1608
182	VENEZUELA	VE	598.0	33.2	21.4	15800	8660	12836	639	602	Very CE	3297
183	VIET NAM	VN	1467.0	44.0	35.8	12600	7920	3435	1078	1009	Very CE	1078
184	YEMEN	YE	919.0	27.6	26.1	2360	1660	2349	4951	4580	CE	321
185	ZAMBIA	ZM	600.0	18.0	10.8	13100	9860	1623	339	318	Very CE	2725
186	ZIMBABWE	ZW	374.0	7.5	3.7	6797.14796	5068.53222	2363	280	262	Very CE	2272

Appendix 5. Quality of parameters informing PRIME

	Country	Code	WHO Region	Data quality: (S)atisfactory or (U)nsatisfactory				Number of "Satisfactory" ratings
				HPV type distribution in cervical cancer	Cervical cancer stage at diagnosis	Cervical cancer incidence	Cervical cancer mortality	
1	AFGHANISTAN	AF	EMRO	U	U	U	U	0
2	ALBANIA	AL	EURO	U	U	U	S	1
3	ALGERIA	DZ	AFRO	S	U	S	U	2
4	ANDORRA	AD	EURO	U	U	U	U	0
5	ANGOLA	AO	AFRO	U	U	U	U	0
6	ANTIGUA AND BARBUDA	AG	AMRO	U	U	U	U	0
7	ARGENTINA	AR	AMRO	S	S	S	S	4
8	ARMENIA	AM	EURO	U	U	U	S	1
9	AUSTRALIA	AU	WPRO	S	S	S	S	4
10	AUSTRIA	AT	EURO	S	S	S	S	4
11	AZERBAIJAN	AZ	EURO	U	U	U	S	1
12	BAHAMAS	BS	AMRO	U	U	U	S	1
13	BAHRAIN	BH	EMRO	U	U	S	S	2
14	BANGLADESH	BD	SEARO	U	U	U	U	0
15	BARBADOS	BB	AMRO	U	U	U	S	1
16	BELARUS	BY	EURO	S	U	S	S	3
17	BELGIUM	BE	EURO	S	U	S	S	3
18	BELIZE	BZ	AMRO	U	U	U	S	1
19	BENIN	BJ	AFRO	S	U	U	U	1
20	BHUTAN	BT	SEARO	U	U	S	U	1
21	BOLIVIA	BO	AMRO	S	U	U	U	1
22	BOSNIA AND HERZEGOVINA	BA	EURO	U	U	S	S	2
23	BOTSWANA	BW	AFRO	U	U	S	U	1
24	BRAZIL	BR	AMRO	S	S	S	S	4
25	BRUNEI DARUSSALAM	BN	WPRO	U	U	U	S	1
26	BULGARIA	BG	EURO	U	U	S	S	2
27	BURKINA FASO	BF	AFRO	U	U	U	U	0
28	BURUNDI	BI	AFRO	U	U	U	U	0
29	CAMBODIA	KH	WPRO	U	U	U	U	0
30	CAMEROON	CM	AFRO	U	U	U	U	0
31	CANADA	CA	AMRO	S	S	S	S	4

32	CAPE VERDE	CV	AFRO	U	U	U	U	0
33	CENTRAL AFRICAN REPUBLIC	CF	AFRO	U	U	U	U	0
34	CHAD	TD	AFRO	U	U	U	U	0
35	CHILE	CL	AMRO	S	S	S	S	4
36	CHINA	CN	WPRO	S	S	S	S	4
37	COLOMBIA	CO	AMRO	S	U	S	S	3
38	COMOROS	KM	AFRO	U	U	U	U	0
39	CONGO	CG	AFRO	U	U	U	U	0
40	CONGO, THE DEMOCRATIC REPUBLIC OF THE	CD	AFRO	U	U	U	U	0
41	COSTA RICA	CR	AMRO	U	U	U	U	0
42	CÔTE D'IVOIRE	CI	AFRO	S	U	S	S	3
43	CROATIA	HR	EURO	U	U	U	U	0
44	CUBA	CU	AMRO	S	S	S	S	4
45	CYPRUS	CY	EURO	S	U	S	S	3
46	CZECH REPUBLIC	CZ	EURO	U	U	S	S	2
47	DENMARK	DK	EURO	S	S	S	S	4
48	DJIBOUTI	DJ	EMRO	S	U	S	S	3
49	DOMINICA	DM	AMRO	U	U	U	U	0
50	DOMINICAN REPUBLIC	DO	AMRO	U	U	U	U	0
51	ECUADOR	EC	AMRO	U	U	U	S	1
52	EGYPT	EG	EMRO	U	U	S	S	2
53	EL SALVADOR	SV	AMRO	U	U	S	U	1
54	EQUATORIAL GUINEA	GQ	AFRO	U	U	U	S	1
55	ERITREA	ER	AFRO	U	U	U	U	0
56	ESTONIA	EE	EURO	U	U	U	U	0
57	ETHIOPIA	ET	AFRO	U	U	S	S	2
58	FIJI	FJ	WPRO	S	U	U	U	1
59	FINLAND	FI	EURO	U	U	S	S	2
60	FRANCE	FR	EURO	S	S	S	S	4
61	GABON	GA	AFRO	S	S	S	S	4
62	GAMBIA	GM	AFRO	U	U	U	U	0
63	GEORGIA	GE	EURO	U	U	S	U	1
64	GERMANY	DE	EURO	U	U	U	S	1
65	GHANA	GH	AFRO	S	S	S	S	4
66	GREECE	GR	EURO	U	U	U	U	0
67	GRENADA	GD	AMRO	S	S	U	S	3
68	GUATEMALA	GT	AMRO	U	U	U	U	0
69	GUINEA	GN	AFRO	U	U	U	S	1
70	GUINEA-BISSAU	GW	AFRO	S	U	U	U	1
71	GUYANA	GY	AMRO	U	U	U	U	0

72	HAITI	HT	AMRO	U	U	U	S	1
73	HONDURAS	HN	AMRO	U	U	U	S	1
74	HUNGARY	HU	EURO	S	U	U	U	1
75	ICELAND	IS	EURO	S	U	U	S	2
76	INDIA	IN	SEARO	S	U	S	S	3
77	INDONESIA	ID	SEARO	S	S	S	U	3
78	IRAN, ISLAMIC REPUBLIC OF	IR	EMRO	S	S	U	U	2
79	IRAQ	IQ	EMRO	S	U	S	U	2
80	IRELAND	IE	EURO	U	U	U	U	0
81	ISRAEL	IL	EURO	S	U	S	S	3
82	ITALY	IT	EURO	U	U	S	S	2
83	JAMAICA	JM	AMRO	S	S	S	S	4
84	JAPAN	JP	WPRO	S	U	S	S	3
85	JORDAN	JO	EMRO	S	S	S	S	4
86	KAZAKHSTAN	KZ	EURO	S	U	S	U	2
87	KENYA	KE	AFRO	U	U	U	S	1
88	KIRIBATI	KI	WPRO	S	U	U	U	1
89	KOREA, DEMOCRATIC PEOPLE'S REPUBLIC OF	KP	SEARO	U	U	U	U	0
90	KOREA, REPUBLIC OF	KR	WPRO	U	U	U	U	0
91	KUWAIT	KW	EMRO	S	S	S	S	4
92	KYRGYZSTAN	KG	EURO	U	U	S	S	2
93	LAO PEOPLE'S DEMOCRATIC REPUBLIC	LA	WPRO	U	U	U	S	1
94	LATVIA	LV	EURO	U	U	U	U	0
95	LEBANON	LB	EMRO	S	U	S	S	3
96	LESOTHO	LS	AFRO	U	U	S	U	1
97	LIBERIA	LR	AFRO	U	U	U	U	0
98	LIBYAN ARAB JAMAHIRIYA	LY	EMRO	U	U	U	U	0
99	LITHUANIA	LT	EURO	U	U	S	U	1
100	LUXEMBOURG	LU	EURO	S	U	S	S	3
101	MACEDONIA, THE FORMER YUGOSLAV REPUBLIC OF	MK	EURO	S	U	S	S	3
102	MADAGASCAR	MG	AFRO	U	U	U	S	1
103	MALAWI	MW	AFRO	U	U	U	U	0
104	MALAYSIA	MY	WPRO	U	U	S	U	1
105	MALDIVES	MV	SEARO	S	U	S	S	3
106	MALI	ML	AFRO	U	U	U	U	0
107	MALTA	MT	EURO	S	U	U	U	1

108	MARSHALL ISLANDS	MH	WPRO	U	U	S	S	2
109	MAURITANIA	MR	AFRO	U	U	U	U	0
110	MAURITIUS	MU	AFRO	U	U	U	U	0
111	MEXICO	MX	AMRO	U	U	S	S	2
112	MICRONESIA, FEDERATED STATES OF	FM	WPRO	S	U	U	S	2
113	MOLDOVA, REPUBLIC OF	MD	EURO	U	U	U	U	0
114	MONGOLIA	MN	WPRO	U	U	U	S	1
115	MONTENEGRO	ME	EURO	U	U	U	U	0
116	MOROCCO	MA	EMRO	S	U	S	S	3
117	MOZAMBIQUE	MZ	AFRO	U	U	U	U	0
118	MYANMAR	MM	SEARO	S	U	U	U	1
119	NAMIBIA	NA	AFRO	S	U	U	U	1
120	NEPAL	NP	SEARO	U	U	U	U	0
121	NETHERLANDS	NL	EURO	U	U	S	U	1
122	NEW ZEALAND	NZ	WPRO	U	U	U	U	0
123	NICARAGUA	NI	AMRO	S	U	U	U	1
124	NIGER	NE	AFRO	S	S	S	S	4
125	NIGERIA	NG	AFRO	U	U	S	S	2
126	NORWAY	NO	EURO	S	U	U	S	2
127	OMAN	OM	EMRO	U	U	U	U	0
128	PAKISTAN	PK	EMRO	U	S	U	U	1
129	PANAMA	PA	AMRO	U	U	U	U	0
130	PAPUA NEW GUINEA	PG	WPRO	S	U	S	S	3
131	PARAGUAY	PY	AMRO	U	U	S	U	1
132	PERU	PE	AMRO	S	S	U	U	2
133	PHILIPPINES	PH	WPRO	U	U	U	U	0
134	POLAND	PL	EURO	S	U	U	S	2
135	PORTUGAL	PT	EURO	U	U	U	U	0
136	QATAR	QA	EMRO	S	U	U	S	2
137	ROMANIA	RO	EURO	S	S	U	S	3
138	RUSSIAN FEDERATION	RU	EURO	S	U	S	S	3
139	RWANDA	RW	AFRO	S	S	S	S	4
140	SAINT KITTS AND NEVIS	KN	AMRO	S	S	S	S	4
141	SAINT LUCIA	LC	AMRO	U	U	S	U	1
142	SAINT VINCENT AND THE GRENADINES	VC	AMRO	U	U	U	S	1
143	SAMOA	WS	WPRO	S	U	S	S	3
144	SAO TOME AND PRINCIPE	ST	AFRO	U	U	U	U	0
145	SAUDI ARABIA	SA	EMRO	U	U	U	U	0

146	SENEGAL	SN	AFRO	U	U	U	U	0
147	SERBIA	RS	EURO	U	U	U	U	0
148	SEYCHELLES	SC	AFRO	U	U	S	U	1
149	SIERRA LEONE	SL	AFRO	U	U	U	U	0
150	SINGAPORE	SG	WPRO	U	U	U	U	0
151	SLOVAKIA	SK	EURO	U	U	S	U	1
152	SLOVENIA	SI	EURO	S	U	U	U	1
153	SOLOMON ISLANDS	SB	WPRO	U	S	S	S	3
154	SOMALIA	SO	EMRO	U	U	U	U	0
155	SOUTH AFRICA	ZA	AFRO	U	U	U	U	0
156	SPAIN	ES	EURO	U	U	S	S	2
157	SRI LANKA	LK	SEARO	U	S	S	S	3
158	SUDAN	SD	EMRO	S	S	S	S	4
159	SURINAME	SR	AMRO	U	U	U	U	0
160	SWAZILAND	SZ	AFRO	U	U	U	U	0
161	SWEDEN	SE	EURO	S	S	S	S	4
162	SWITZERLAND	CH	EURO	S	S	S	S	4
163	SYRIAN ARAB REPUBLIC	SY	EMRO	U	S	S	U	2
164	TAJIKISTAN	TJ	EURO	U	U	U	U	0
165	TANZANIA, UNITED REPUBLIC OF	TZ	AFRO	U	U	U	U	0
166	THAILAND	TH	SEARO	S	U	U	S	2
167	TIMOR-LESTE	TL	SEARO	U	U	S	U	1
168	TOGO	TG	AFRO	S	S	S	S	4
169	TONGA	TO	WPRO	U	S	S	S	3
170	TRINIDAD AND TOBAGO	TT	AMRO	S	U	U	U	1
171	TUNISIA	TN	EMRO	U	U	U	S	1
172	TURKEY	TR	EURO	S	U	U	U	1
173	TURKMENISTAN	TM	EURO	S	S	S	U	3
174	UGANDA	UG	AFRO	U	U	U	U	0
175	UKRAINE	UA	EURO	U	U	U	U	0
176	UNITED ARAB EMIRATES	AE	EMRO	U	U	U	U	0
177	UNITED KINGDOM	UK	EURO	U	U	S	S	2
178	UNITED STATES	US	AMRO	U	U	S	U	1
179	URUGUAY	UY	AMRO	S	S	S	U	3
180	UZBEKISTAN	UZ	EURO	U	U	U	S	1
181	VANUATU	VU	WPRO	U	U	U	U	0
182	VENEZUELA	VE	AMRO	S	U	S	U	2
183	VIET NAM	VN	WPRO	U	U	S	S	2

184	YEMEN	YE	EMRO	U	U	S	U		1
185	ZAMBIA	ZM	AFRO	S	S	S	S		4
186	ZIMBABWE	ZW	AFRO	S	S	S	S		4