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EXPANDED PROGRAMME ON IMMUNIZATION
Global status report

Immunization coverage of children before their first birthday—infants—is an indicator of progress for the Expanded Programme on Immunization (EPI). Information from national programmes is provided to WHO Regional Offices and forwarded to EPI Geneva for analysis. Feedback generally occurs at least twice yearly through the report of the EPI Global Advisory Group and through publication of status reports in the *Weekly Epidemiological Record*.

Table 1 presents the information on infant immunization coverage for the 25 largest developing countries, for other developing countries, for China, and for the developed countries. At present, almost 40% of the children in developing countries, excluding China, receive a third dose of DPT and of polio vaccine. WHO estimated that in 1974, when the EPI was established, the coverage of infants with these vaccines was less than 5% in these countries.

All Regions, except Africa, show an immunization coverage of over 50% for at least 1 of the EPI vaccines *(Table 2)*. For DPT and poliomyelitis, these figures represent coverage with 3 doses, and coverage with only an initial dose may be half as much again in many immunization programmes. This coverage with an initial dose serves as a conservative indicator of the access which children have to immunization services (and most likely to other health

services as well) in the first year of life. Simply by reinforcing existing health services, there seems to be every reason to expect that full immunization coverage of 60-70% will be achieved with the EPI vaccines in developing countries by 1990. The central task is to make certain that susceptible children within reach of health services are identified and followed up until fully immunized.

The present immunization situation represents a major public health gain over the last 10 years. Yet such a gain is clearly not enough. More than a quarter of a million cases of poliomyelitis and almost 3.5 million deaths attributable to EPI target diseases continue to occur annually *(Table 3)*. Global figures for immunization coverage represent an average which conceals the poor situation in a few large countries and many smaller ones. Coverage with a third dose of DPT is less than 15% in 13 of the least developed countries which account for some 10% of the surviving infants in the developing world, excluding China *(Table 4)*. And in countries achieving higher levels of coverage, infants and women of childbearing age not immunized are among the most disadvantaged in the world. Bringing immunization and other health services to them and their families remains a challenging task, particularly if it is to be accomplished by 1990.

Table 1. **Estimated immunization coverage with BCG, DPT, poliomyelitis, measles and tetanus vaccines in developing countries ranked by surviving infants, based on data available as of July 1985**

Country	Infants surviving to 1 year of age (millions)	Cumulative percentage of births	Immunization coverage (percentage)				
			Children less than 1 year of age				Pregnant women
			BCG	DPT 3	Polio 3	Measles	Tetanus 2
1 India	21.74	27	65	51	37	...	42
2 Indonesia	4.59	33	56	6	7	7	22
3 Nigeria	4.11	38	...	...	...	...	...
4 Pakistan	3.46	42	73	64	65	80	24
5 Bangladesh	2.95	46	2	2	1	1	1
6 Brazil	2.83	49	79	67	99	80	...
7 Mexico	2.46	52	24	26	91	30	...
8 Iran (Islamic Republic of)	2.02	55	10	68	65	69	4
9 Viet Nam	1.66	57	5	5	2	4	...
10 Philippines	1.56	59	76	61	58	30	...
11 Egypt	1.54	61	53	57	67	41	20
12 Ethiopia	1.45	62	16	9	9	16	3
13 Turkey	1.40	64	65	56	59	30	...
14 Zaire	1.29	66	34	16	18	20	...
15 Burma	1.29	67	24	8	1	...	16
16 South Africa	1.11	69	...	...	...	...	...
17 Thailand	1.05	70	81	57	56	7	31
18 Kenya	0.98	71	...	...	...	...	...
19 United Republic of Tanzania	0.95	72	84	9	56	82	35
20 Republic of Korea	0.92	73	84	69	78	...	...
21 Morocco	0.91	75	70	48	48	42	...
22 Colombia	0.86	76	72	41	60	42	6
23 Sudan	0.85	77	7	4	4	3	2
24 Algeria	0.81	78	59	33	30	17	...
25 Argentina	0.70	79	64	65	64	62	...
25 countries	63.49	79	49	37	37	19	19
Other developing countries	17.36	21	43	33	32	28	8
Sub-total developing countries (excluding China)	80.85	100 81	48	36	36	21	17
China	19.23	19	50	63	78	74	...
Total developing countries (including China)	100.08	100	48	41	44	33	14
Total developed countries	17.31		54	62	66	73	—
Global total — Total mondial	**117.39**		**49**	**45**	**47**	**39**	**12**

... No information available.

Table 2. **Estimated immunization coverage with BCG, DPT, poliomyelitis, measles and tetanus vaccines in developing countries, by WHO Region, based on data available as of July 1985**

WHO Region	Number of surviving infants (millions)	Immunization coverage (percentage)				
		Children less than 1 year of age				Pregnant women
		BCG	DPT 3	Polio 3	Measles	Tetanus 2
Africa	17.94	29	12	12	30	9
Americas	10.54	56	47	76	50	2
South-East Asia	33.31	57	40	29	3	34
Europe	2.40	43	54	56	33	—
Eastern Mediterranean	11.34	45	50	51	51	12
Western Pacific	24.55	50	58	70	60	—
Total	**100.08**	**48**	**41**	**44**	**33**	**14**

Table 3. **Estimated annual number of deaths from neonatal tetanus, measles and pertussis and annual number of cases of poliomyelitis in developing countries (excluding China), July 1985**

	Neonatal tetanus[a] (thousands)	Measles[b] (thousands)	Pertussis[c] (thousands)	Total deaths (thousands)	Percentage of total deaths	Poliomyelitis cases[d] (thousands)	Percentage of cases
25 largest developing countries (as per *Table 1*)	624	1 659	478	2 761	80	205	77
Other developing countries	179	382	128	689	20	60	23
Total developing countries	803	2 041	606	3 450	100	265	100

The annual number of deaths from neonatal tetanus, measles and pertussis, and the annual number of cases of poliomyelitis in developing countries (excluding China) were estimated, using the immunization coverage data in *Table 1* and the following assumptions:

[a] Neonatal tetanus: Based on survey data or in absence of survey, neonatal tetanus deaths are estimated from countries with similar socioeconomic conditions.

[b] Measles: It is assumed that the vaccine efficacy is 95% and that 90% of unimmunized children will acquire measles. Coverage is assumed to be zero in countries from which data are not available.

[c] Pertussis: It is assumed that the vaccine efficacy is 80% and that 80% of unimmunized children will acquire pertussis. Coverage is assumed to be zero in countries from which data are not available.

[d] Poliomyelitis: In view of narrow limits of variation of results of poliomyelitis surveys, and in the absence of an immunizatuon programme, a fixed incidence rate of 5 cases per 1 000 newborns is used. A vaccine efficacy of 95% is used. Coverage is assumed to be zero in countries from which data are not available.

(ต่อหน้า 496)

Expanded Programme on Immunization

(ต่อจากหน้า 491)

Table 4. **Least developed countries known to have a coverage of less than 15% with 3 doses of DPT, by WHO Region, based on data available as of July 1985**

African Region	Surviving infants (millions)	Region of the Americas	Surviving infants (millions)	South-East Asia Region	Surviving infants (millions)	Eastern Mediterranean Region	Surviving infants (millions)
Burkina Faso	0.28	Haiti	0.20	Bangladesh	2.95	Democratic Yemen	0.09
Central African Republic	0.10					Somalia	0.22
Chad	0.19					Sudan	0.85
Ethiopia	1.45					Yemen	0.26
Guinea Bissau	0.03						
Niger	0.26						
Uganda	0.68						
Total	**2.99**	**Total**	**0.20**	**Total**	**1.42**	**Total**	**2.95**

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