

## Supplementary File 1

### Search Strategy

Database: MEDLINE(R) All including Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Daily and Versions(R) <1946-current>

Search Strategy:

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1 exp Poliomyelitis/  
2 exp Poliovirus/  
3 exp Poliovirus Vaccines/  
4 polio\$.tw.  
5 1 or 2 or 3 or 4  
6 exp Mass Vaccination/  
7 (mass adj2 campaign\$).tw.  
8 (outbreak\$ and (respons\$ or control\$ or manage\$ or react\$ or impact\$ or activit\$ or campaign\$ or program\$ or project\$)).tw.  
9 ((supplement\$ adj5 (immuni\$ or vaccin\$)) and (activit\$ or campaign\$ or program\$ or project\$)).tw.  
10 (('house to house' or 'mop up') adj2 (immuni\$ or vaccin\$)).tw.  
11 (nation\$ adj2 (immuni\$ or vaccin\$) adj2 day\$).tw.  
12 (global\$ adj2 polio\$ adj2 eradicat\$ adj2 initiat\$).tw.  
13 GPEI.tw.  
14 6 or 7 or 8 or 9 or 10 or 11 or 12 or 13  
15 5 and 14  
16 exp Immunization Programs/  
17 (immuni\$ or vaccin\$).tw.  
18 16 or 17  
19 (routine\$ or universal\$ or usual\$ or normal\$ or standard\$ or establish\$ or tradition\$ or everyday\$).tw.  
20 18 and 19  
21 (expand\$ adj2 program\$ adj1 (immuni\$ or vaccin\$)).tw.  
22 (nation\$ adj2 (immuni\$ or vaccin\$) adj2 (activit\$ or campaign\$ or program\$ or project\$)).tw.  
23 NIP.tw.  
24 21 or 22 or 23  
25 20 or 24  
26 5 and 25  
27 15 and 26  
28 limit 27 to yr="1994 - 2020"

**Supplementary Table 1: Summary of Polio Supplementary Immunisation Activities (SIA), 1994-2020**

<b>First author, Publication year</b>	<b>Type of SIA</b>	<b>Number of vaccination rounds</b>	<b>SIA year</b>	<b>Cohort included (Age group)</b>	<b>Total Doses of polio vaccine distributed</b>	<b>Was routine immunisation conducted?</b>	<b>Were there reports of social mobilisation and community engagement?</b>
Bawa, 2018	Immunisation plus day for nomadic populations	2	2016	<5 years	3879	Yes	Yes
Bawa, 2019	Mobile vaccination for hard-to-reach communities	1	2014-2015	<5 years	2 979 408	Yes	Yes
Bedford, 2017	National Integrated polio, measles and deworming campaign	1	2015	<5 years	693 622	Yes	Yes
Bonu, 2003	Pulse polio immunisation campaign with annual national immunisation days	NS	1995-1998	12-35 months	NS	Yes	No
Bonu, 2004	National immunisation days	2 to 8	1990-2001	<5 years	NS	Yes	No
Closser 2014	NS	NS	NS	NS	NS	Yes	Yes
Helleringer, 2016	Nationwide oral polio vaccines SIA	3	2011	<5 years	NS	No	No

Koop, 2011	Extended programme on immunisation in the refugee camp	3	1999	<4 years	NS	Yes	Yes
Levin, 2002	Polio SIAs through national immunisation days	NS	1993-1998	1-5 years	NS	No	No
Mangrio, 2008	Polio national immunisation days	NA	NA	NA	NA	Yes	NA
Mello, 2010	National immunisation days	2	2007	19-35 months	NS	Yes	Yes
Nsugba, 2018	Polio Eradication Initiative	NA	NA	NA	NA	No	No
Onyeka, 2014	Polio SIA	3	2010	0-59 months	3 906 860	Yes	Yes
Poy, 2016	Integrated polio SIA	NS	1994-2011	NS	NS	Yes	No
Tafesse, 2017	Polio SIA	15	2013-2015	<5 years	NS	No	No
Van den Ent, 2017	Polio Eradication Initiative	NA	NA	NA	NA	Yes	Yes
Van Turenout, 2003	Mass immunisation campaign	2	1995-2000	12-23 months	NS	Yes	No
Verguet, 2013	National immunisation days	NA	2010	<5 years	NS	Yes	No
Wallace, 2017	Measles, rubella and polio SIA	NS	2012-2013	NS	NS	Yes	Yes

Zuber, 2003	National immunisation days	2	1999	0-59 months	NS	Yes	No
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SIA = Supplementary Immunisation Activity; NS= Not stated; WPV = Wild Poliovirus; NA = Not applicable

**Supplementary Table 2: Summary of Immunisation Coverage from Polio Supplementary Immunisation Activities (SIA), 1994-2020**

First author, Publication year	Polio coverage achieved following/ attributed to SIA +	Routine polio coverage <sup>+</sup>	Immunisation coverage <sup>+</sup> – routine vaccines
Bawa 2018 WHO AFRO	Feb 2016 2428 target popn, 2015 immunised = 83%* March 2016 2036 target popn, 1864 immunised = 92%*	Feb 2016 13.1% oral polio vaccines delivered were first dose March 2016 12.6% oral polio vaccines delivered were first dose	Pentavalent n=296 100% coverage Measles N=330 111% coverage Vitamin A N=311 105% coverage
Bawa 2019 WHO AFRO	2979408 OPV doses delivered for children <5 years Crude coverage in selected clusters: 3178/3872 (82.1%) Increased to 3408/3575 (95.3%)		Crude coverage for routine immunisation (measles proxy in immunisation card) in selected clusters: 690/3872 (17.8%) increased to 1750/3575 (49%)
Bedford 2017 WHO AFRO	101%		Measles 99% Deworming 99% (during campaign)
Bonu 2003 WHO SEARO	Increased from 48.1% to 72.6% f (p<0.000) in selected states for OPV1 Increased from 34% to 45% for OPV3 (demonstrating significant drop-out rate)	48% first dose 34% 3 doses	DPT 1 dose pre = 48% DPT 1 dose post = 49.9% DPT 3 dose pre = 31.2% DPT 3 dose post = 29.1%

	3 times increase in 1 dose OPV coverage after controlling for survey design and demographics.		
Bonu, 2004 WHO AFRO WHO SEARO	Difference in immunisation pre and post intervention (polio 3) WHO AFRO – Ranged from -17.3 – 9.2 WHO SEARO – Ranged from 6.2 – 40.2		Difference in immunisation pre and post intervention (EPI 5) WHO AFRO – Ranged from -11.3 – 14.8 WHO SEARO – Ranged from 1.5 – 20.2
Closser 2014 WHO AFRO WHO SEARO			DTP3 coverage ranges by region from 32-93%
Helleringer, 2016 WHO SEARO	66.5%		SIA exposure on DTP doses was significant
Koop, 2001 WHO EURO	70-100% of children depending on day and camp		70-100% of children depending on day and camp
Mello, 2010 PAHO/ WHO	91%		HepB: 2.5-4.8% MMR: 4.0-6% DPT-Hib or DTP: 6.9-11.4% (coverage varies by state)
Onyeka, 2014 WHO AFRO	Jan: 127% Mar: 135% Nov: 131%	Jan: 21% Dec: 74%	
Poy, 2016 WHO AFRO	Cameroon: 104.4%		Measles: 101%

	DR Congo: 104.5%		
Tafesse, 2017 WHO AFRO	97.8% (average over 15 rounds)		
van Turenout, 2003 WHO AFRO	Round 1: 57% Round 2: 80%	Polio 0 - 96 Polio 1 - 98 Polio 2 - 97 Polio 3 - 92	79% of children were fully immunised through routine services (Measles 85%, Hib <10%, all others >91%)
Zuber, 2003 WHO AFRO	ADMIN METHOD: Round 1 - 103% Round 2 - 108%  SURVEY METHOD Round 1 - 88% Round 2 - 91%		ADMIN METHOD: Round 1 (vit A) - 100% Round 2 (measles) - 113%  SURVEY METHOD Round 1 (vit A) - 90% Round 2 (measles) - 89%

\* coverage calculated using numerator and denominator provided in study

+ immunisation coverage data presented as background or context, and not explicitly part of the study design, was not included