

Meeting of the Strategic Advisory Group of Experts on Immunization (SAGE)

Engagement of private providers with the National Immunization Programme: Opportunities and Challenges

Prof. Sanjay Zodpey, MD, PhD

Vice President - Academics, Public Health Foundation of India, New Delhi

Director – Indian Institute of Public Health, Delhi

Outline of the Presentation

- Private sector in India
- Trends in full immunization
- Private providers' contribution to vaccine coverage
- Evidence of private sector service delivery
- Private providers' role in adverse events following immunization (AEFI) and vaccine-preventable disease surveillance
- Harmonization of vaccine schedule and related issues
- Innovation in public private partnership
- Engagement with organizations and other key influencers
- Major challenges and strengths

Private Sector in India

- Private sector in health strongly influenced by, and influences, the public sector
- A useful typology in mixed systems. 3 metrics:
 - private share in total health expenditure;
 - private share in primary and secondary care episodes; and
 - extent of reliance of public sector on private fee payment
- Example- Children aged 0-2 years seeking treatment for ARI (63%) and diarrhea (48%) at private provider (CES, UNICEF, 2009)

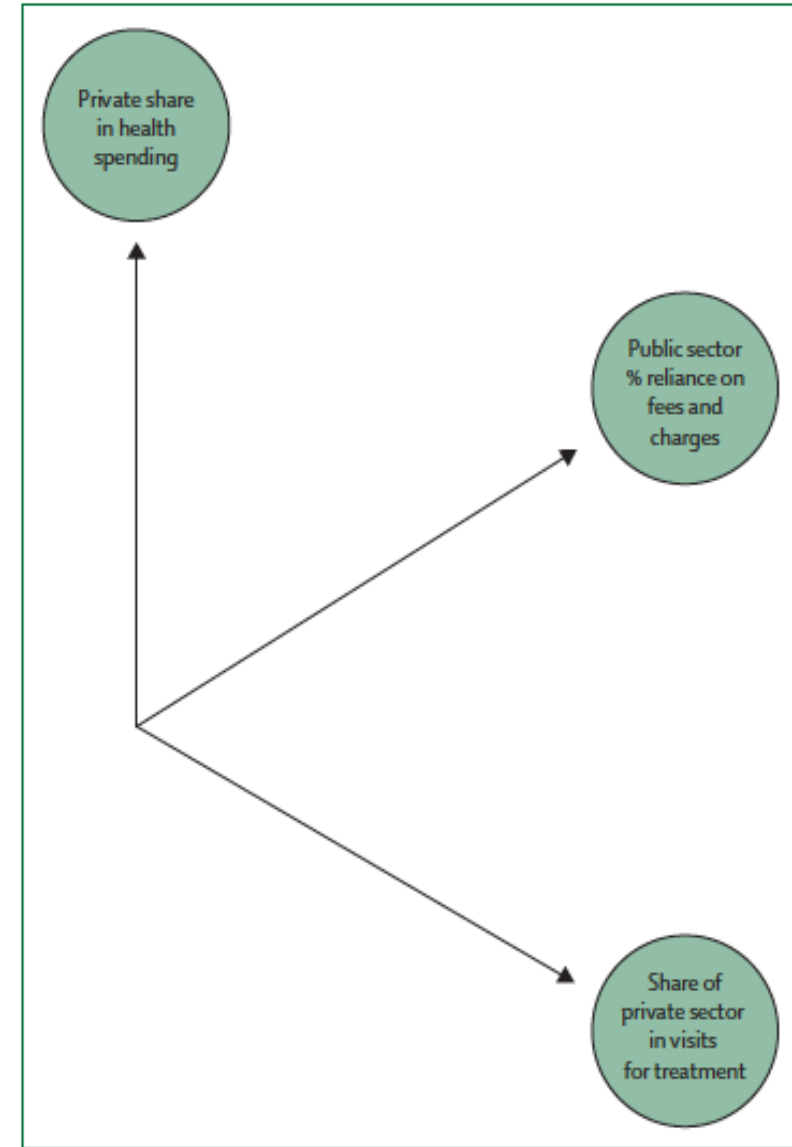


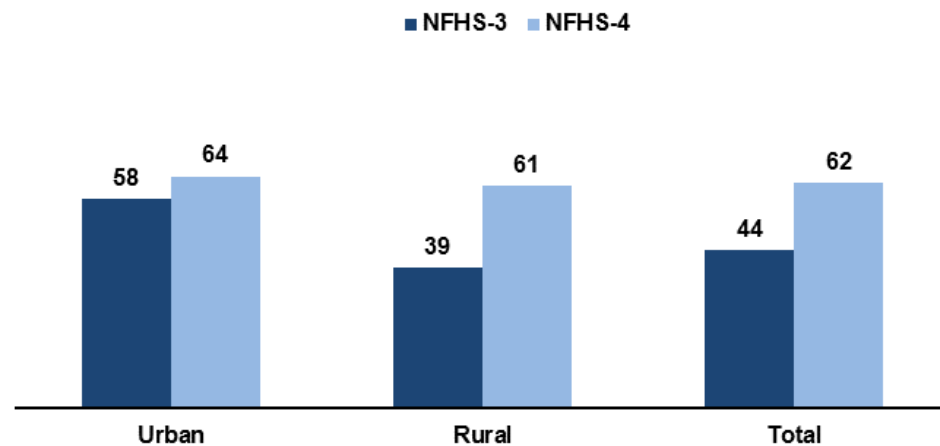
Figure 1: Three dimensions for classification of the private sector within health systems

Maureen Mackintosh et al. Lancet 2016

Trends in Full Immunization

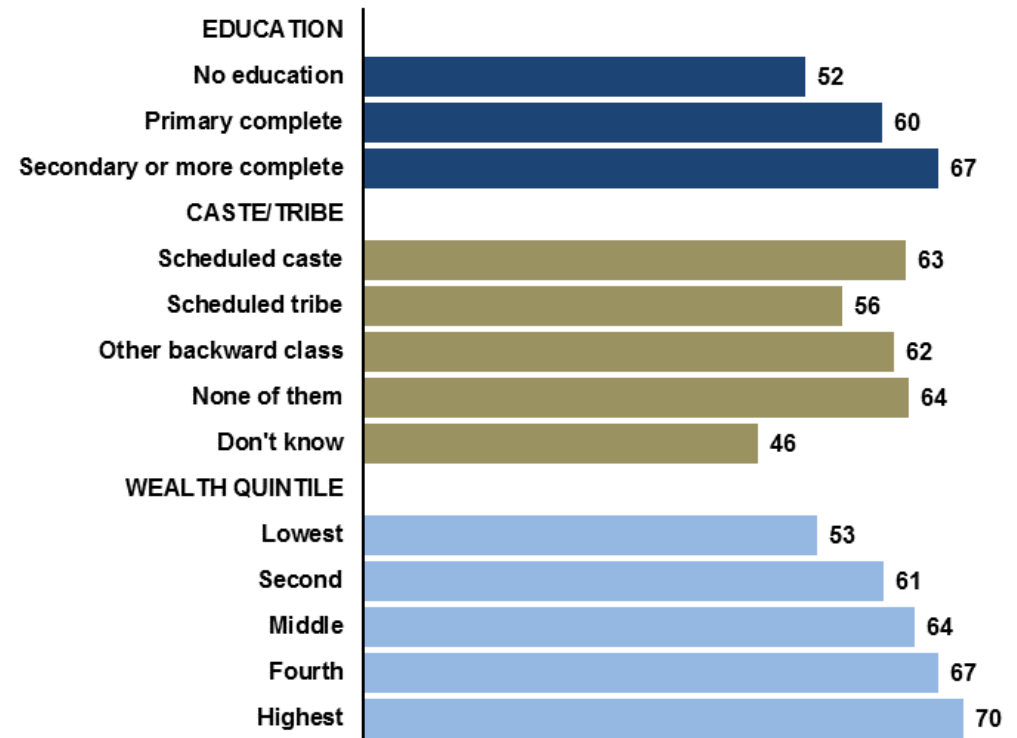
Trends in Full Immunization

Percentage of children 12-23 months



Full Immunization

Percentage of children 12-23 months



	NFHS 3 (2005-06)	NFHS 4 (2015-16)
Children aged 12-23 months who received most of the vaccinations in private health facility (%)	10.5%	Overall - 7 % Rural – 3%, Urban – 17%

Role of the private sector in vaccination delivery in India: evidence from private vaccine sales data, 2009–12

Abhishek Sharma,^{1,2,3,*} Warren A Kaplan,^{1,2} Maulik Chokshi,³ Sanjay P Zodpey⁴

Brief Research Article

BMJ Open Implications of private sector Hib vaccine coverage for the introduction of public sector Hib-containing pentavalent vaccine in India: evidence from retrospective time series data

Abhishek Sharma,^{1,2} Warren A Kaplan,^{1,2} Maulik Chokshi,³ Habib Hasan Farooqui,³ Sanjay P Zodpey³

Estimates on State-Specific Pneumococcal Conjugate Vaccines (PCV) Coverage in the Private Sector: Evidence from PCV Utilization Data

Brief Research Article

Habib Hasan Farooqui¹, Sanjay Zodpey², Maulik Chokshi³

¹Assistant Professor, ²Director, ³Associate Professor, Indian Institute of Public Health, Indian Academy of Pediatrics (IAP), India

Pediatricians' Perspectives on Pneumococcal Conjugate Vaccines: An Exploratory Study in the Private Sector

Sanjay Zodpey¹, Habib Hasan Farooqui², Maulik Chokshi³, Balu Ravi Kumar⁴, Naveen Thacker⁵

¹Public Health-Delhi, Gurgaon, Haryana, ²Past President, Indian Academy of Pediatrics, Maharashtra, India

RESEARCH PAPER

How do parents and pediatricians arrive at the decision to immunize their children in the private sector? Insights from a qualitative study on rotavirus vaccination across select Indian cities

Mathew Sunil George^a, Preeti Negandhi^b, Habib Hassan Farooqui^b, Anjali Sharma^b, and Sanjay Zodpey^b

^aSocial and Behavioural Sciences, Indian Institute of Public Health Delhi, Gurgaon, Haryana, India; ^bIndian Institute of Public Health Delhi, Gurgaon, Haryana, India

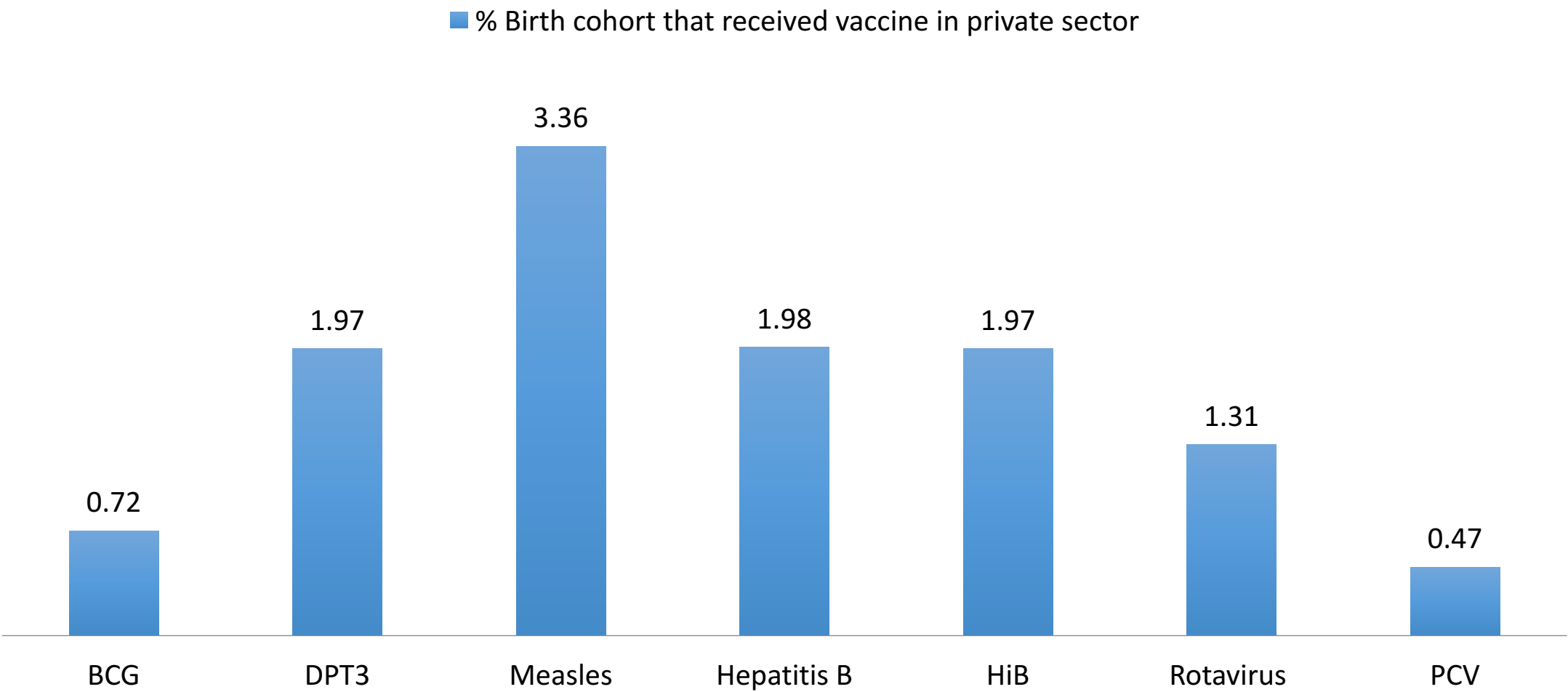
Private providers' contribution to vaccine coverage (2009-2012)

Table 1. Overall vaccination coverage rates and private-sector vaccine shares in the vaccinated cohort among 16 Indian states

States	BCG		Measles		DPT3		OPV3	
	Overall coverage rate (%) [1]	Private-sector vaccine share (%) ^a [2]	Overall coverage rate (%) [3]	Private-sector vaccine share (%) ^a [4]	Overall coverage rate (%) [5]	Private-sector vaccine share (%) ^a [6]	Overall coverage rate (%) [7]	Private-sector vaccine share (%) ^a [8]
North								
Punjab + Haryana	88.3	17.1	80.2	10.5	77.8	6.1	81.9	14.5
Delhi	88.1	12.7	80.8	5.9	75.6	3.6	78.0	11.6
Rajasthan	75.6	2.7	54.2	2.0	49.4	1.5	64.8	0.2
Central								
Uttar Pradesh	68.7	2.8	45.0	2.1	44.1	1.5	70.8	2.0
Madhya Pradesh	81.0	1.9	61.7	1.9	50.2	1.5	63.7	12.2
East								
West Bengal	89.8	6.2	76.0	3.8	72.2	2.2	77.5	0.1
Orissa	85.5	2.2	69.2	1.3	69.2	1.1	69.6	0.3
Bihar	73.5	1.0	49.3	1.0	52.7	1.5	72.0	5.3
West								
Gujarat	85.7	11.6	71.9	6.1	64.7	3.3	68.2	7.8
Maharashtra	95.0	3.4	88.0	2.1	81.0	2.2	78.8	15.5
South								
Andhra Pradesh	95.8	8.1	79.9	3.3	75.7	2.1	77.6	9.1
Karnataka	92.5	6.3	81.0	5.1	81.1	3.7	80.5	5.7
Kerala	95.2	8.0	84.2	18.9	86.4	6.5	86.2	82.0 ^b
Tamil Nadu	94.2	2.6	90.5	2.5	87.2	1.2	83.7	1.6
Northeast								
Assam	74.4	1.5	58.8	0.7	56.2	1.1	63.3	1.7
Weighted means^c	83.5	4.7	64.3	3.5	61.5	2.3	72.9	7.6

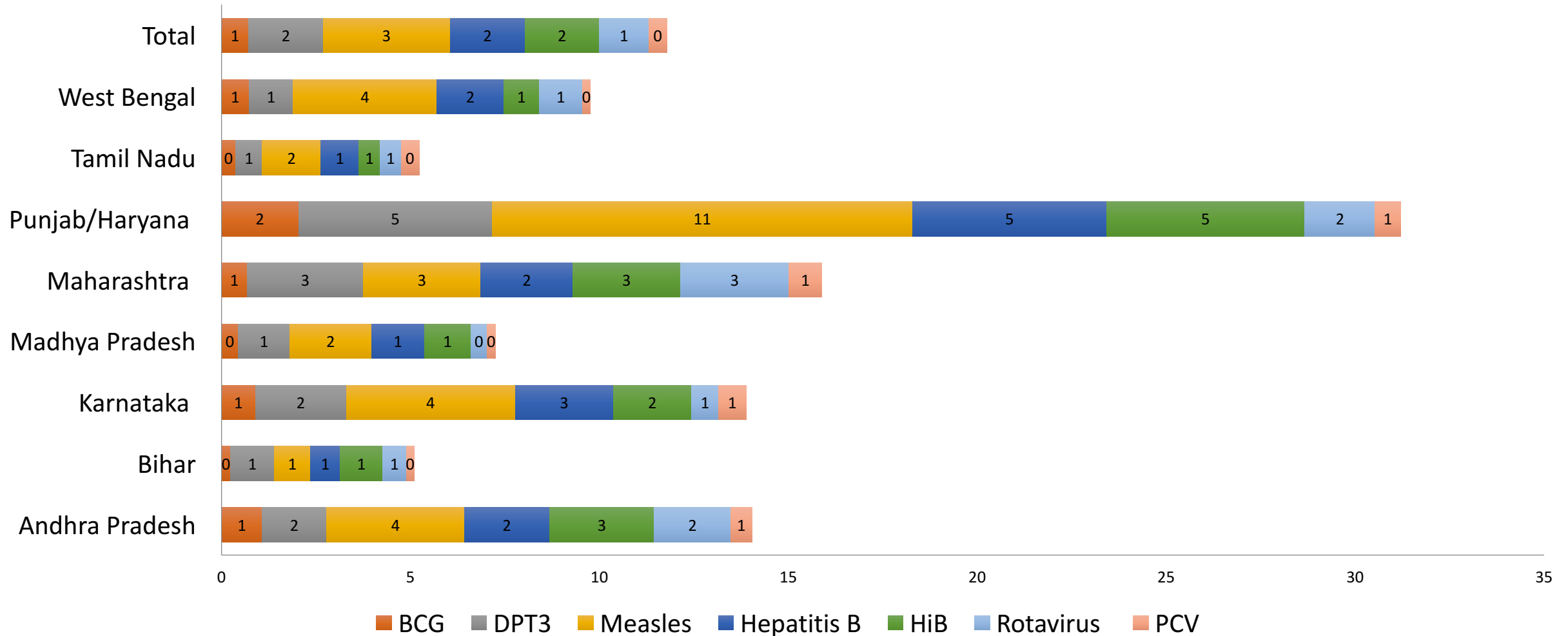
Sharma et al
2016, HPP

Private providers' contribution to vaccine coverage – estimates from sales data (2012)



Private providers' contribution to vaccine coverage – estimates from sales data (2012)

% Birth cohort that received vaccine in private sector



Private sector service delivery

- National survey of pediatricians - selective or routine administration of vaccines
 - PCV (86%), Hib (96%), and Rotavirus (80%)
- High perceived disease susceptibility and vaccine efficacy were associated with routine administration of Hib vaccine but not for PCV or rotavirus vaccine.

(Gargano et al. Vaccine 2012)

- The decision to recommend a vaccine is taken on the principle that it is better to be safe than sorry than on any objective assessment of whether a child requires a particular vaccine or not.

(George MS et al. Human Vaccines & Immunotherapeutics (2016)

- Private sector's contribution is commendable but there are quality issues.
 - For example - 51% of practitioners vaccinate even in absence of immunization card, 44% would vary the Immunization Schedule for financial reasons sometimes or often, 69% do not report vaccination coverage to Government

(Hagan et al, 2017 submitted)

Role of private providers in AEFI and VPD surveillance

- Less than 5% of all AEFIs reported to AEFI surveillance system are from private sector (over past 6 years)
- Details of the members of the Indian Academy of Pediatrics (IAP) for each state and district have been shared with District Immunization Officers to facilitate reporting AEFIs
- IAP has a VPD reporting software (IDSURV) for private practitioners, which has the provision to report serious/severe AEFIs

Courtesy - ITSU

Key difference between UIP and IAP Vaccination schedules

Revised National Immunization Schedule

Age	Vaccines given
Birth	BCG, OPV-0, Hepatitis B Birth dose
6 Weeks	OPV-1, Pentavalent-1, fIPV-1, Rota-1 & PCV-1
10 weeks	OPV-2, Pentavalent-2 & Rota-2
14 weeks	OPV-3, Pentavalent-3+ fIPV-2/IPV, Rota-3 & PCV-2
9-12 months	Measles (MCV1), JE1**, PCV-B or MR-1
16-24 months	Measles (MCV2), JE2**, DPT-B, OPV –B or MR-2
5-6 years	DPT-B2
10 years	TT
16 years	TT
Pregnant Mother	TT1, 2 or TT Booster***

** in endemic districts only

*** one dose if previously vaccinated within 3 years

Planned to be introduced
Being introduced/scaled up

Age Vaccine	Birth	6 wk	10 wk	14 wk	18 wk	6 mo	9 mo	12 mo	15 mo	18 mo	19-23 mo	2-3 yr	4-6 yr	7-10 yr	11-12 yr	13-18 yr
BCG	BCG															
Hep B	Hep B1	Hep B2							Hep B3							
Polio	OPV 0	IPV 1	IPV 2	IPV 3		OPV 1	OPV 2	IPV B1					OPV 3			
DTP		DTP 1	DTP 2	DTP 3					DTP B1				DTP B2			
Tdap															Tdap	
Hib		Hib 1	Hib 2	Hib 3					Hib Booster							
Pneumococcal		PCV 1	PCV 2	PCV 3					PCV Booster						PCV	
PPSV23															PPSV	
Rotavirus		RV 1	RV 2	RV 3												
Measles								Measles								
MMR								MMR 1					MMR 2			
Varicella								VAR 1					VAR 2			
Hep A									Hep A1 & Hep A2							
Typhoid													Typhoid			
Influenza													Influenza (yearly)			
HPV															HPV 1-3	
Meningococcal															Meningococcal	
Cholera															Cholera 1 & 2	
JE															Japanese Encephalitis	

* This schedule includes recommendations in effect as of November 2013.

Range of recommended ages of all children
Range of recommended ages for certain high-risk groups
Range of recommended ages for catch-up immunization
Not routinely recommended

Source: Indian Academy of Pediatrics (IAP) Recommended Immunisation Schedule, 2013, <http://www.iapindia.org/IMM%20Schedule.pdf>, accessed on 15 February 2014.

Vaccination schedule harmonization issues

- IAP's immunization is generally harmonized with UIP schedule.
- Large number of antigens recommended in IAP schedule.
- Age groups considered for proposed antigens are broader than UIP schedule
- Given that some of the newer antigens are not available through UIP, affordability concerns results in incomplete immunization.
- For example:
 - Gujarat private sector reported - vaccine schedules not followed by 45% of providers if concerns about ability to pay *(Hagan et al, 2017 submitted)*
 - PCV private sector study reported – 68% provider recommended PCV to all whereas 32% recommended only to those who could afford it
 - 97% providers reported - high PCV price is main reason for refusal of vaccination.
(Zodpey S, et al. Indian J Public Health 2015)

Innovation in Public Private Partnership - ITSU



The screenshot shows the website of the Immunization Technical Support Unit (ITSU). The header includes the National Health Mission logo and navigation links: Home, Contact Us, Language, About ITSU, UIP Program, Publications, and Tools and Dashboards. The main content area is titled "Vision & Mission" and features a large image of smiling children. Below the image, the "Vision" and "Mission" statements are displayed. The "Vision" statement is: "To assist the Universal Immunization Programme in reaching every child, reducing inequality of coverage and quality, and protecting every eligible child from Vaccine-Preventable Diseases." The "Mission" statement is: "To provide an over-reaching framework to energize the Universal Immunization Programme by improving program management, strengthening the institutional ability for greater efficiency and accountability and developing a stronger evidence base for effective policy decision." The "Focus" section lists: "Augmenting and strengthening the health workforce capacity to deliver routine immunization by organizing learning events and developing capacity-building programs;". A sidebar on the right contains links to "About ITSU", "Vision & Mission", "ITSU Overview", "Thematic Areas", "Our Achievements", and "Career Opportunities".

Vision & Mission

Home | About ITSU | Vision & Mission

Vision & Mission

Vision

To assist the Universal Immunization Programme in reaching every child, reducing inequality of coverage and quality, and protecting every eligible child from Vaccine-Preventable Diseases.

Mission

To provide an over-reaching framework to energize the Universal Immunization Programme by improving program management, strengthening the institutional ability for greater efficiency and accountability and developing a stronger evidence base for effective policy decision.

Focus

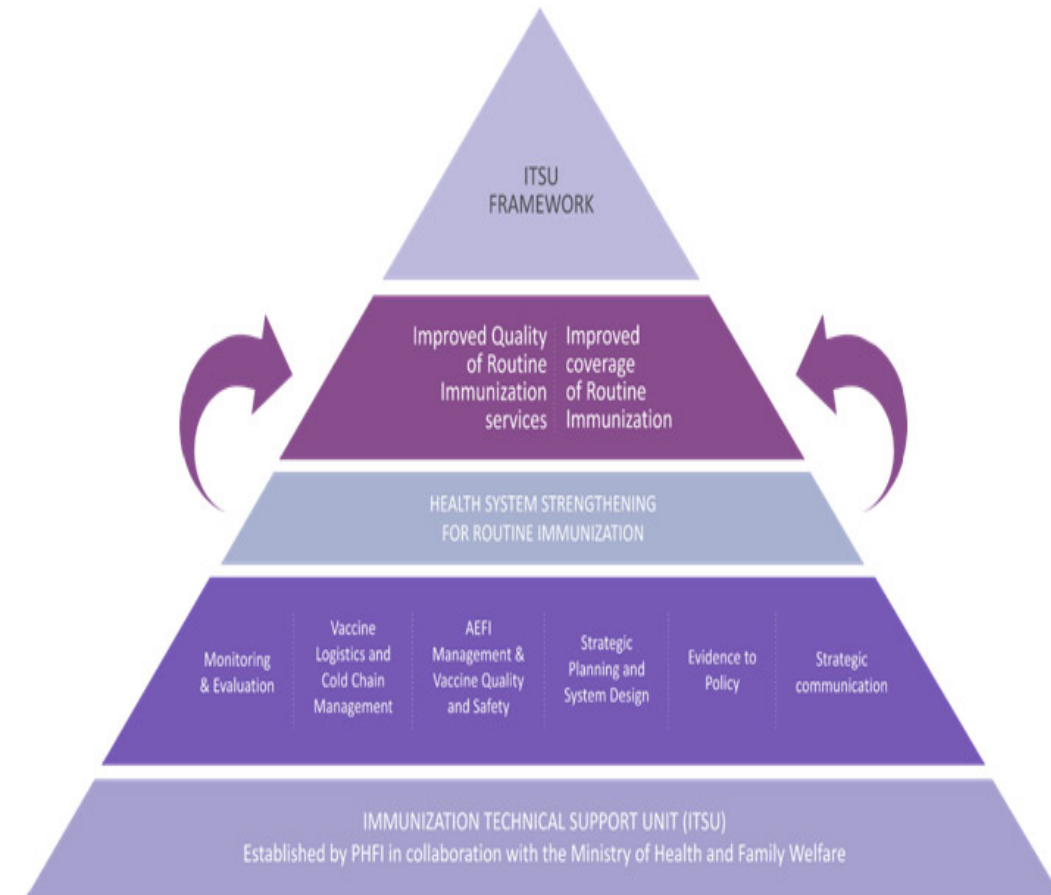
ITSU provides support for improving immunization coverage by appraising performances across all states, reviewing the existing central and state governmental processes, and formulating innovative, evidence-based practices and strategies. Its activities include:

- » Augmenting and strengthening the health workforce capacity to deliver routine immunization by organizing learning events and developing capacity-building programs;

About ITSU

- Vision & Mission
- ITSU Overview
- Thematic Areas
- Our Achievements
- Career Opportunities

Our Achievements



Immunization Technical Support Unit of MoHFW is an innovative public private partnership providing techno-managerial support to UIP in program design and management, policy research, advocacy and communications.

Engagement with organizations & other key influencers

- IAP and IMA representatives are liaison members of the NTAGI.
- IAP and IMA representatives are members of the state and district AEFI committees.
- In domain of capacity building,
 - IAP representative is included in ToT for new vaccine introduction.
 - ADVAC and EVAC courses run by the private sector (Child Health Foundation) has vaccine manufacturers and government personnel as trainers.
- In area of vaccine Logistics and cold chain,
 - Private players, Godrej and Aukma are involved in training of the cold chain handlers for the new cold chain technology pilot that ITSU is doing in partnership with PATH
 - KPMG, a private consultancy recommended IT for improved supply chain and stock management which led to the pilot and subsequent scale up of eVIN.
 - A private player- Logistimo provided the technology solution for the eVIN data loggers.

Engagement with organizations & other key influencers

- Professional organizations (e.g., India Academy of Pediatrics)

- Positive

- Biggest network of pediatricians, reputed and influential
 - Presence across the entire length and breadth of the country
 - Members of the organization command respect from community and are key opinion leaders
 - Can provide platform for engagement with community and practitioners

- Negative

- Conflict of interest is hard to eliminate
 - May find difficulty in addressing equity issues

- Vaccine manufacturers

- Positive

- Provides commodity security
 - Healthy competition can make vaccines more affordable
 - Manages risk of product development

- Negative

- Cannot address equity and affordability concerns
 - May have conflict of interest

Major challenges and strengths with engagement in private sector

- **Challenges**

- Lack of sustainable platform to bring all stakeholder together to discuss and debate on roles and responsibilities, purpose and principles of engagement
- Absence of framework to explicitly capture incentives, expectations and responsibilities

- **Strengths**

- Presence across the country
- Significant proportion of community seek care from them
- Compliments public health system in big way especially on treatment side
- Significant health workforce and health infrastructure

Thanks