Understanding and Clearing Immunisation Backlogs in the Wake of the COVID-19 Pandemic

Prepared by: Vaccine Preventable Disease Program (VPDP), Department of Public Health, Ministry of Health

Location: BHUTAN

Date: 6th December 2022

Linked Immunisation Action Network

Facts about COUNTRY

- *Population: 7,63,249*
- *Size of 2021 Birth Cohort: 11,314*
- *Fertility Rate, total (births per woman): 1.893 births per woman*
- *Distribution of population (%rural/urban):Rural 56.99% & Urban 43.01%*
- *GDP average annual growth rate: 4.09 %*
- *Number of Counties/Provinces/Districts with Populations: 20 districts with 205 Blocks/Gewogs*
- *Number of Public Facilities/Private Facilities: 53-Hospitals, 183-PHCs, 554-ORCs & 53-Sub-Posts (Total = 843 facilities)*
- *Year of transition from Gavi support: 2017*
- *Number of antigens on the national vaccination schedule: 13*

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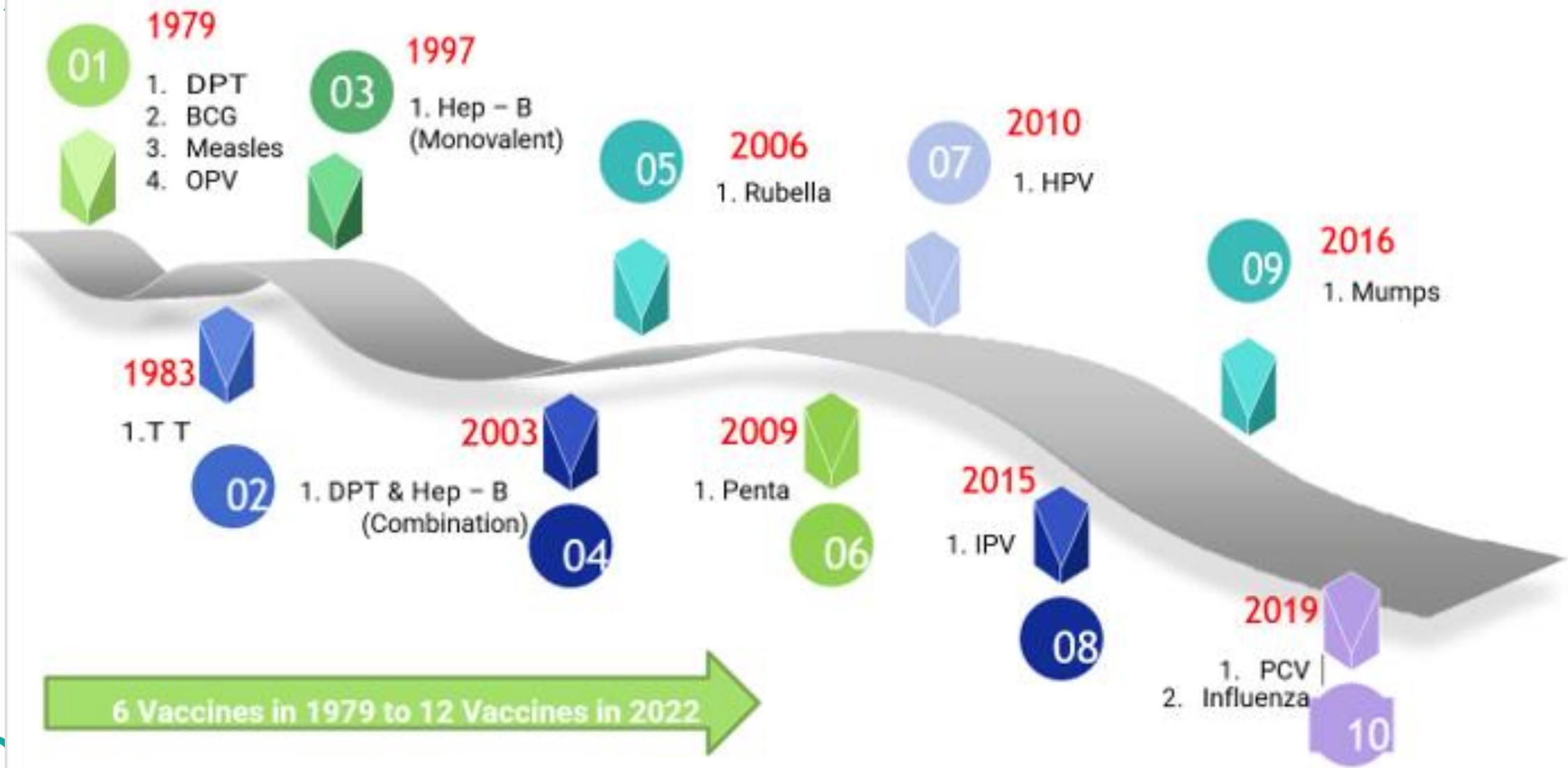
Program Background & Achievements

- EPI program lunched on 15th November 1979
- Initially started with 6 antigens (BCG, DTP, TT, OPV & M)
- Currently,13 antigens Including Influenza & COVID -19 vaccine
- 1991- Achieved universal childhood immunization
- 2009- GAVI award for sustaining high routine immunization coverage
- 2014- Received free polio certification
- 2016- Received Maternal and Neonatal tetanus elimination certificate
- 2017- Received Measles elimination certificate
- 2018- Received Hepatitis B control certificate

History of EPI Vaccines introduction



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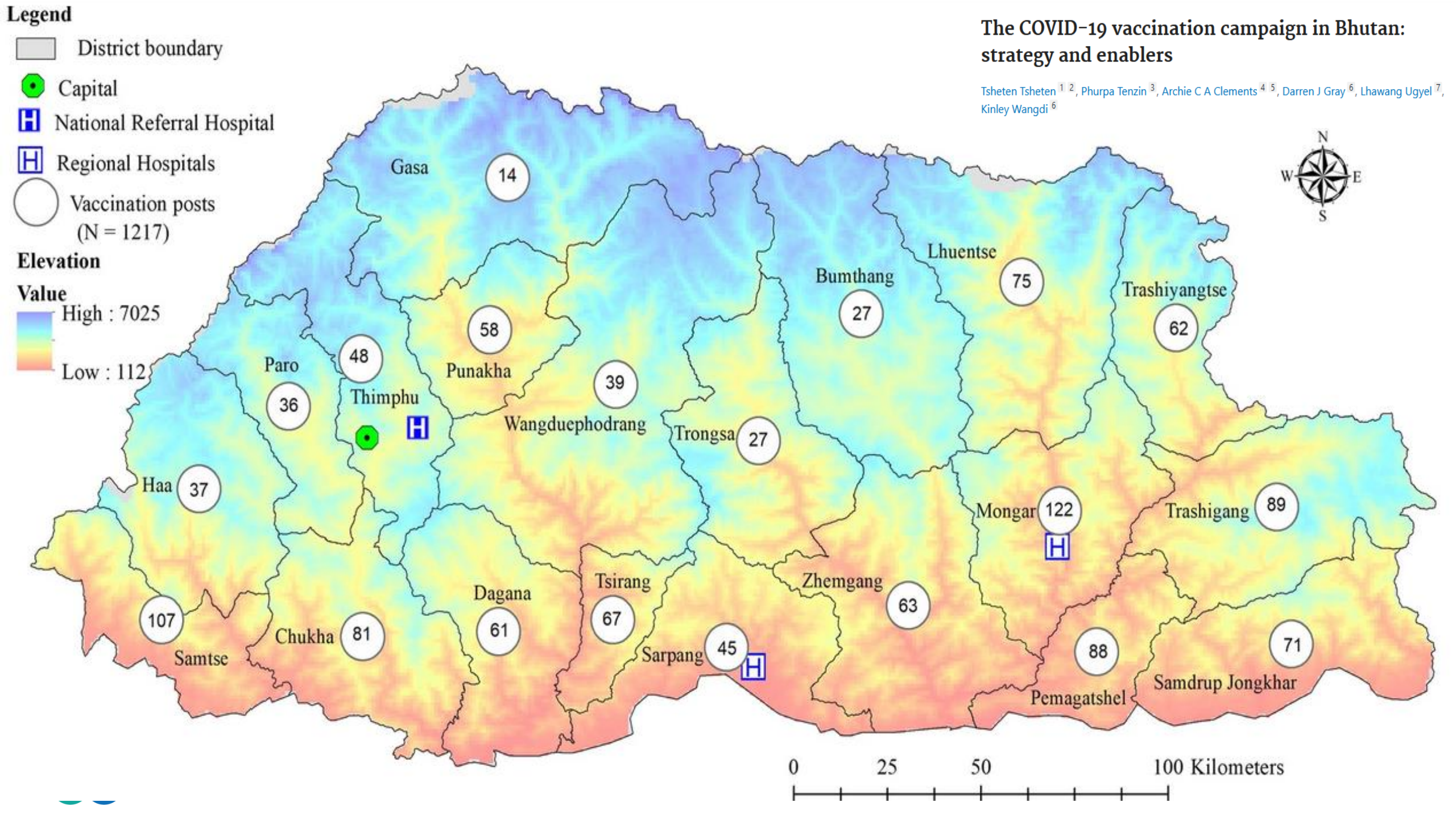
The COVID-19 vaccination campaign in Bhutan: strategy and enablers

Tsheten Tsheten [1 2], Phurpa Tenzin [3], Archie C A Clements [4 5], Darren J Gray [6], Lhawang Ugyel [7], Kinley Wangdi [6]



Status of Routine Immunisation Coverage

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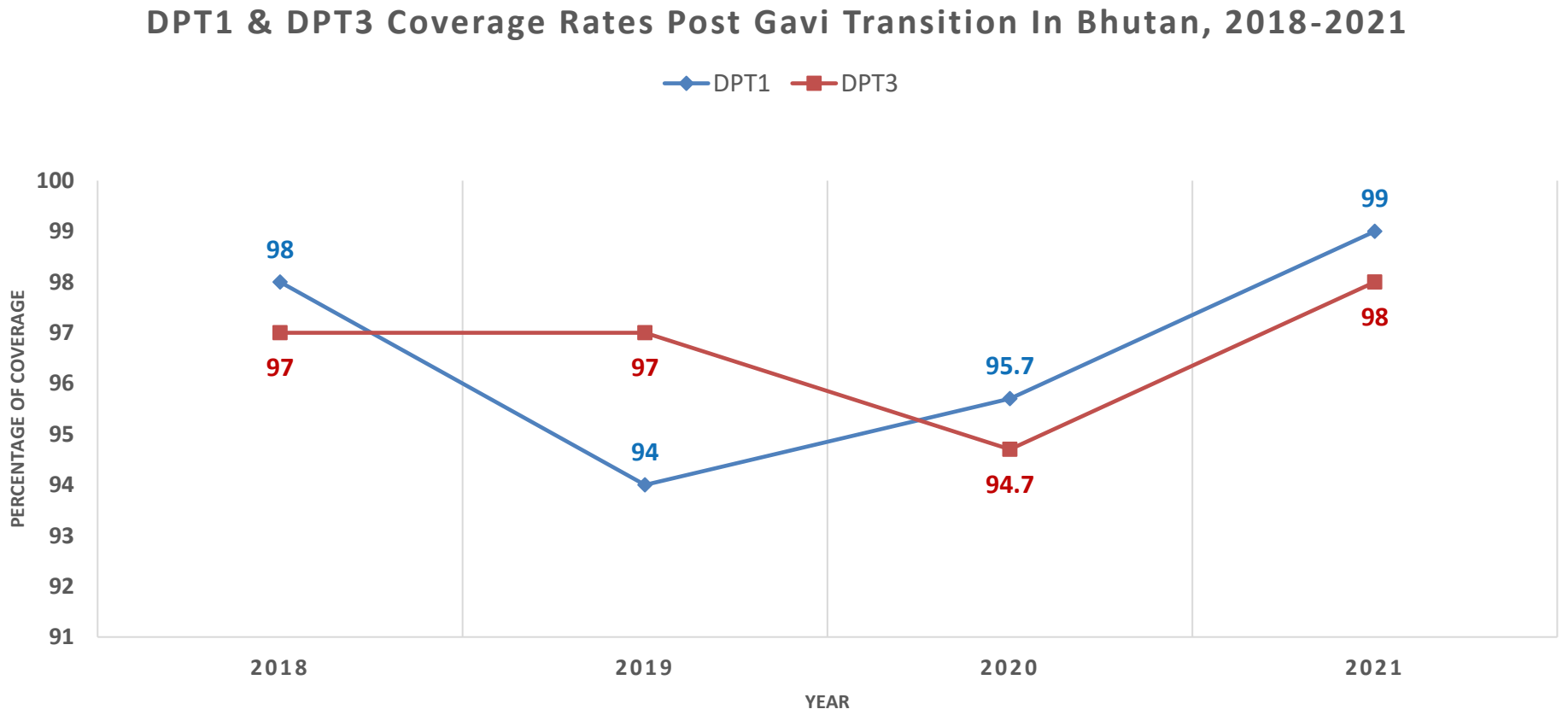
Status of Coverage

- *Coverage rates for DPT1 & DPT3 from year of Gavi transition to 2021.*



Data Source: VPDP, Program data submitted for Joint Reporting Form (JRF) – WHO/UNICEF

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Overview of Coverage

- *What happened to routine immunization coverage during the pandemic?*
  - *Some ORCs schedule disrupted and it was taken up in the subsequent months*
  - *Missed schedule – carried over to the following month/year*
  - *EPI Integrated with the MCH, Nutrition, C4CD services*
- *Monitoring?*
  - *Through DHIS2 reporting system*
  - *Limited field visits carried out*

Disruption & Mitigation Strategies

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Understanding Disruptions

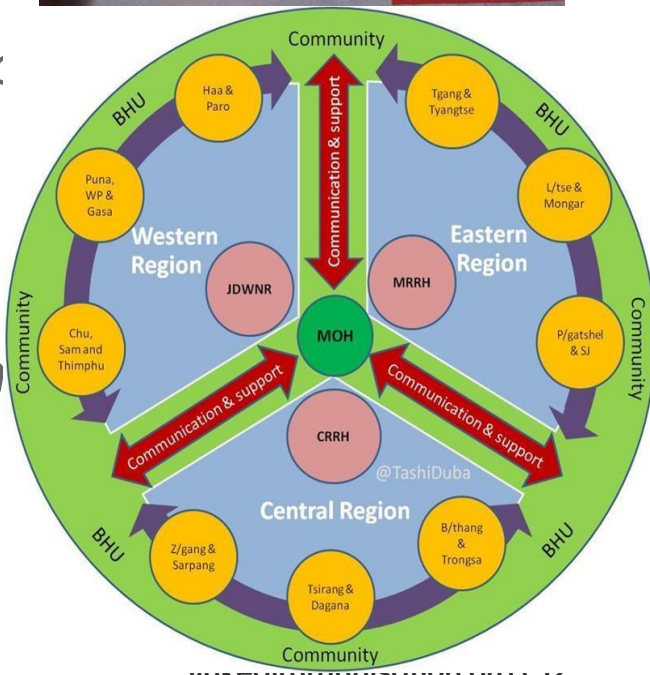
- *Reasons for disruptions to RI during each of the different phases of the pandemic (2020, 2021, 2022).*
  - *Frequent Lockdowns*
  - *Travel restriction of both service providers and seekers – Intra-and Enter District movement restrictions*
  - *Focus more on COVID-19 pandemic response*
  - *Health workers shortage – all most all allocated for COVID-19 pandemic and suffered acute shortage in routine services delivery*
- *How did these disruptions change or evolve as the pandemic progressed?*
  - *Zooning system movement – time bound*
  - *Mobile vaccination clinics/van*

Disproportionate Impact of Disruptions

- *Were certain populations disproportionately impacted by these disruptions?*
  - *Urban vs. Rural Populations: Urban impacted more*
  - *Across income strata: Urban dwellers, mostly*
    - *Kidu: Monthly living subsistence (2 years) amount by the King (Hoteliers staffs, Tour guide and drivers, handicraft, travel agent staffs and Taxi drivers)*
  - *Other: Quarantine facilitated by the Government, treatment free of cost at government hospitals & repatriation flights*

Mitigating Disruptions

- *What was done to mitigate disruptions to RI coverage during pandemic peaks? What worked, what didn't, and why?*
  - *Contingency Plan to Ensure Essential Healthcare Service in the Worst Case COVID-19 Pandemic Scenario in Bhutan, August 2020*
  - *Maintained continuous vaccine supply chain*
  - *MCH Handbook "Pass" movement modality during Lockdo*
  - *Follow up by respective MCH Clinics*
  - *Routine MCH & ORC clinics conducted*
  - *Regional HR Hub modality – resource mobilization*
  - *Trainee health workers – pre-service candidate engagen*
  - *Retired health workforce*
  - *DeSuups Plus*



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Scale of Backlog

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Scale of Backlogs

- *What was the scale of the immunisation backlog of children that missed vaccination in 2020? 2021? Beyond 2021?*
- *What percentage of children were missed? 1st dose; subsequent doses; at least estimates.* ***Please insert a table and provide data source(s)***

	2018	2019	2020	2021
Drop-out rate between the first and third dose of DPT vaccine under 12 m. (%)	-1.29	+3.00	-1.09	-0.64
Number of Zero dose children by 12 months	187	675	449	106

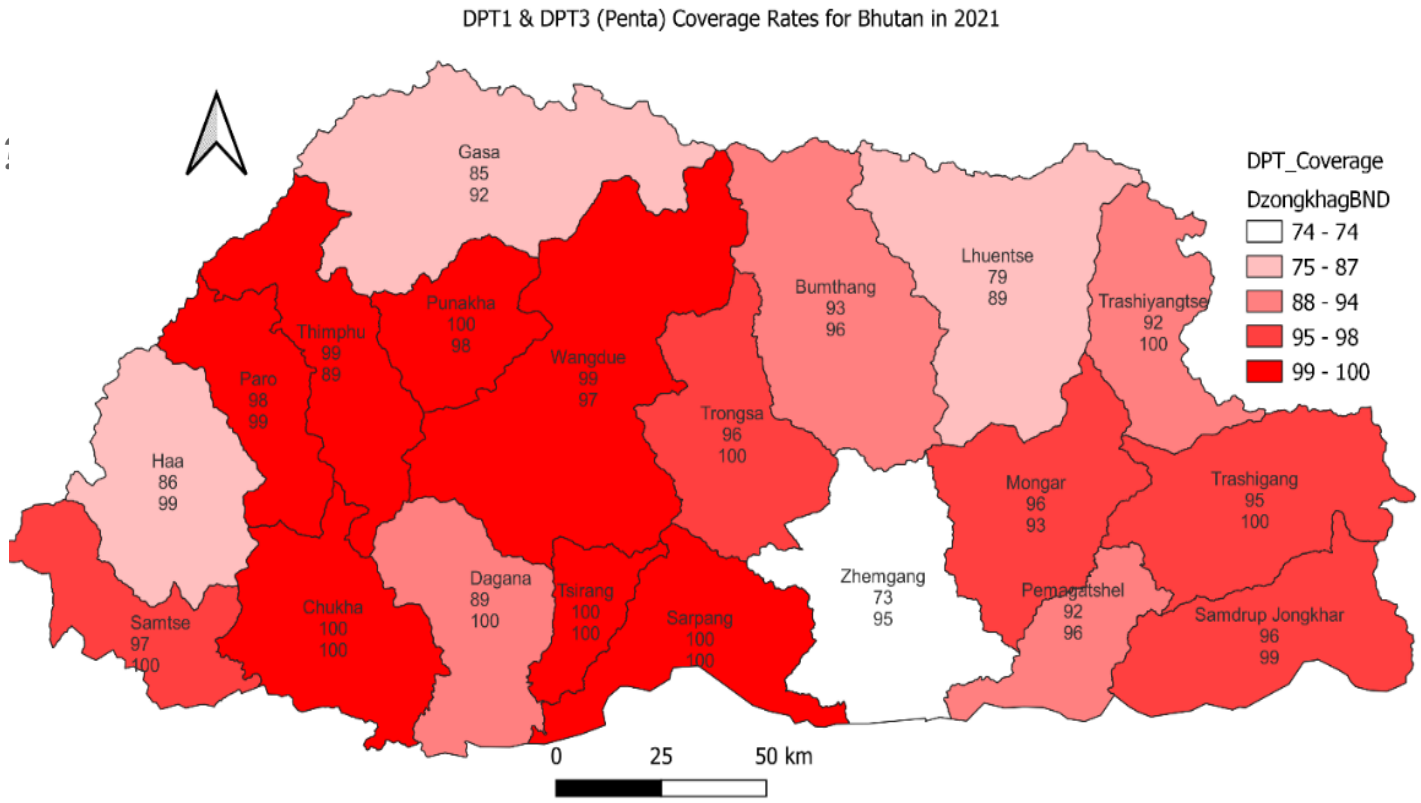
- *What was country experience in quantifying the backlog?*
  - *No*

Data Source: VPDP, Program data submitted for Joint Reporting Form (JRF) – WHO/UNICEF

Disproportionate Impact of Backlogs

- *Did you find any pockets of partly immunized and unimmunized children?*
  - *Under Immunized Children: DPT3 Coverage (%): (DTP3 – DTP1): Nomadic, Urban area and remote villages. E.g. Highlanders/Yak herders*
  - *Zero Dose Children: DPT1 Coverage (%): (100%-DTP1%)*

- *Please describe these pockets.*
- *What do these children look like*



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Disproportionate Impact of Bac

- *What do these children look like?*

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Addressing Backlogs

- *Who coordinated the clearing of backlog? Was it through existing clinics/additional immunization sessions, outreach activities, and/or supplementary immunization campaigns?*
  - *Existing Clinics, Out Reach Clinics (ORCs), Fixed Clinics*
- *What did regional and national co-ordination look like?*
  - *National and Regional coordination is going on smooth – information flow, logistics, fund mobilization & Reporting. Poor feedback mechanism.*
- *What were the roles of the public, private, and independent sectors in clearing the backlog?*
  - *Advocacy – Village level, Gups, Tshokpas VHWs. Private - Maternity leave, Maternity allowance – Govt. initiatives.*
- *What incentives, if any, were provided for staff for additional work?*
  - *DSA, refreshments, mobile vouchers, and online knowledge up-gradation*

Best Practices & Lessons Learned

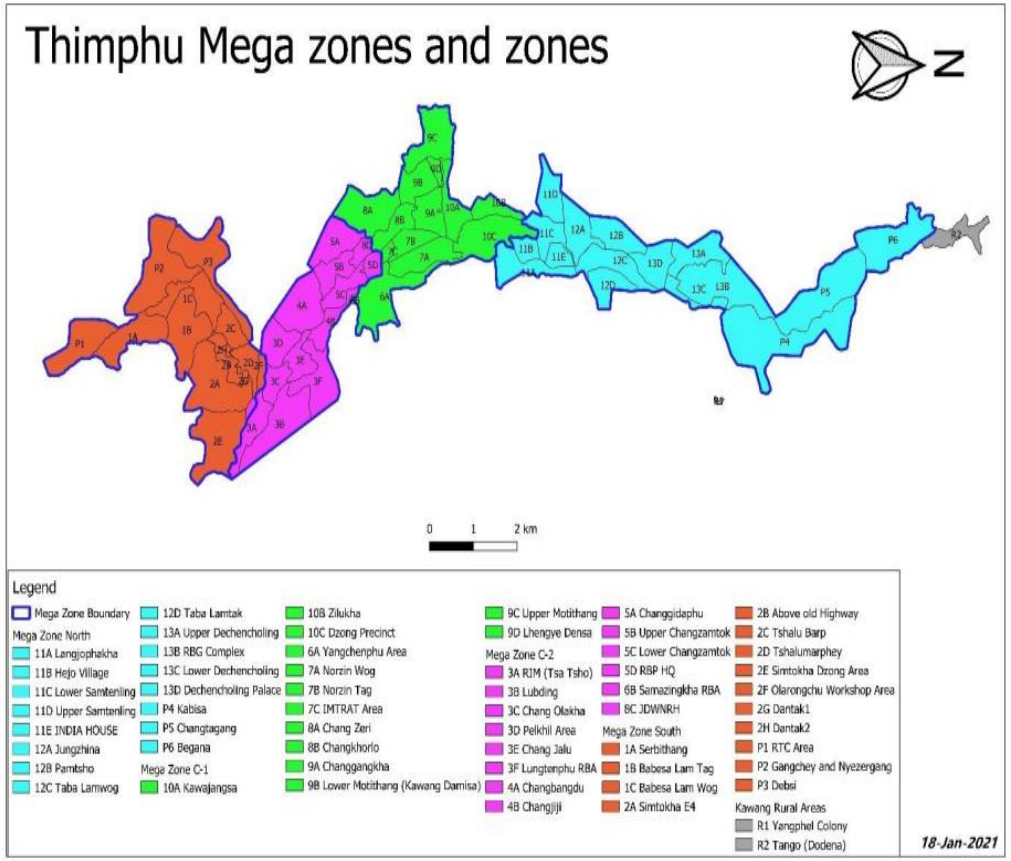
- *What strategies and approaches did the country use to address the backlog?*

Best practices:

- **Zooning system,**
- **Mobile vaccination clinics/van,**
- **Full Govt. support- Political will**
- **Private, NGOs & Donors,**
- **Health workers dedication & full support,**
- **Door-to-door services for disabled populations**
- **Containment of health workers and DeSuups to provide essentials health services**

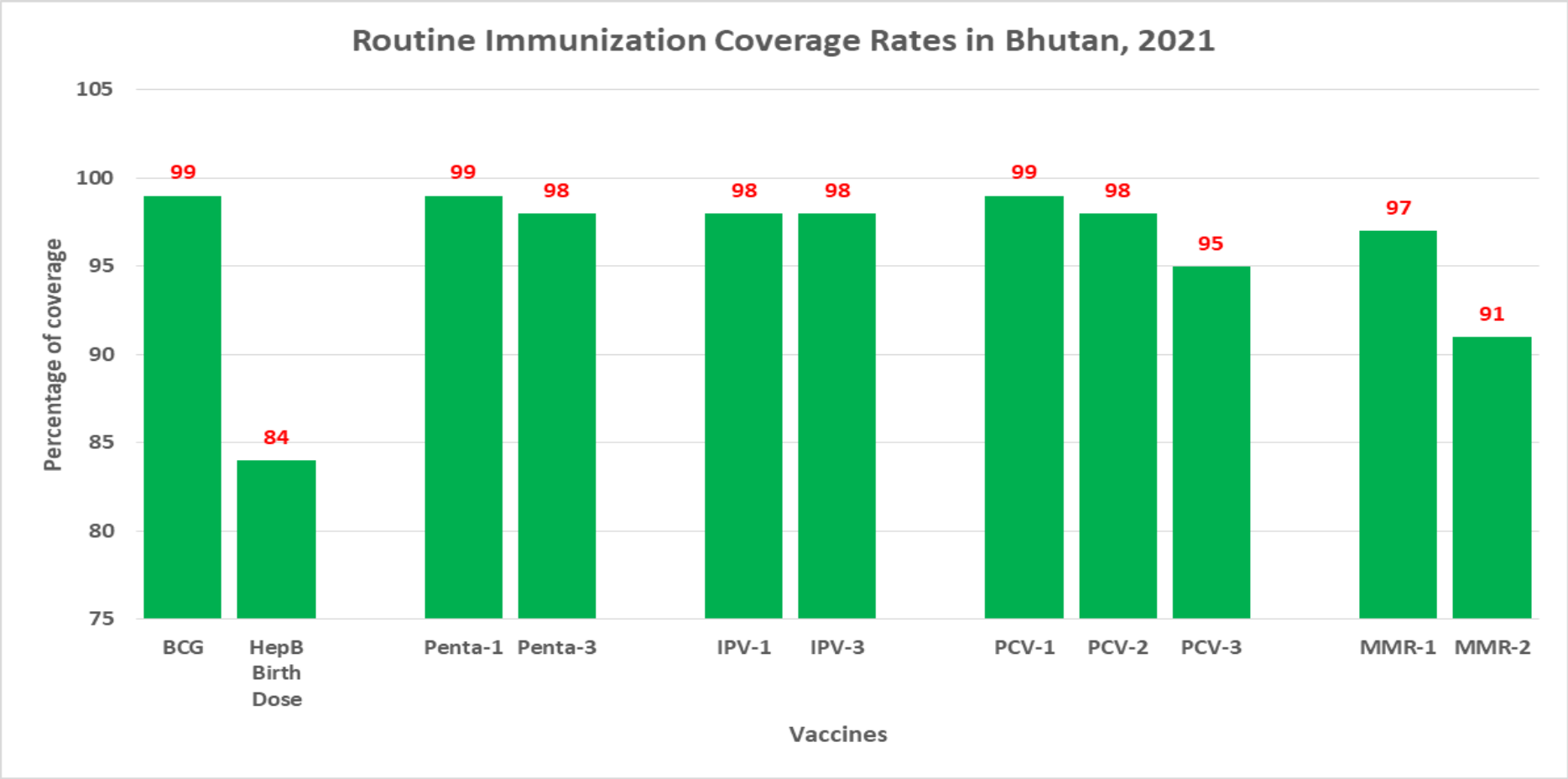
Lesson learned, going forward:

- **Simulations & mock drills required**
- **Required strong health system (Infrastructure, Human Resources, Financing),**
- **Collaboration and cooperation among different agencies,**
- **Uninterrupted supplies of vaccines and other logistics,**
- **Enhanced cold chain capacity in the country**



Current Status of Backlogs

- *What was the coverage achieved, and how is it being m*



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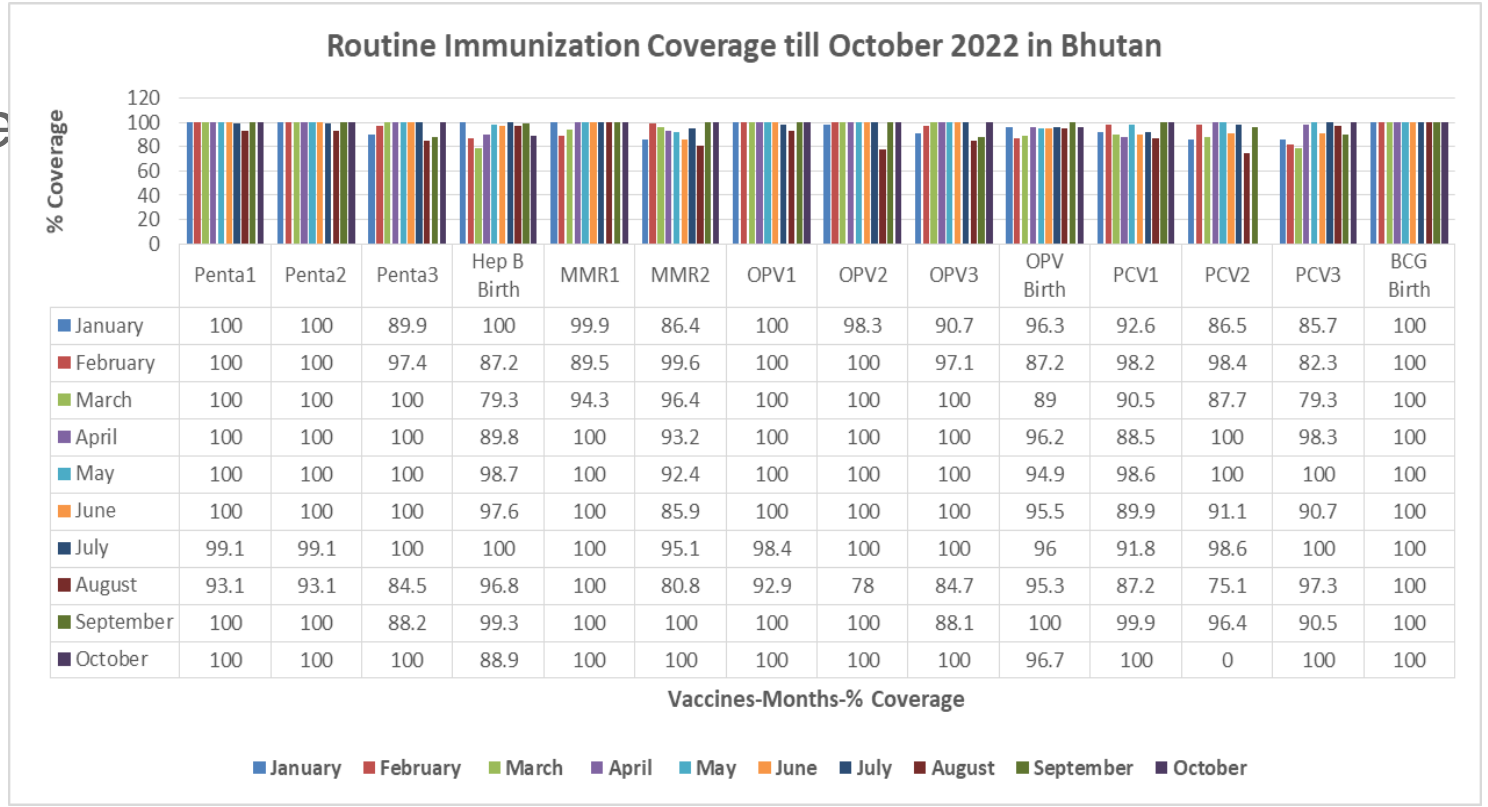
Current Status of Backlogs

- *Were there any coverage surveys reviews or evaluations done, and if so, what were the findings?*
  - *None so far. Planned in 2023, along with National Health Survey*
- *Has coverage rebounde*
- *Why or why not?*
  - *Picking up…*



	Penta1	Penta2	Penta3	Hep B Birth	MMR1	MMR2	OPV1	OPV2	OPV3	OPV Birth	PCV1	PCV2	PCV3	BCG Birth
January	100	100	89.9	100	99.9	86.4	100	98.3	90.7	96.3	92.6	86.5	85.7	100
February	100	100	97.4	87.2	89.5	99.6	100	100	97.1	87.2	98.2	98.4	82.3	100
March	100	100	100	79.3	94.3	96.4	100	100	100	89	90.5	87.7	79.3	100
April	100	100	100	89.8	100	93.2	100	100	100	96.2	88.5	100	98.3	100
May	100	100	100	98.7	100	92.4	100	100	100	94.9	98.6	100	100	100
June	100	100	100	97.6	100	85.9	100	100	100	95.5	89.9	91.1	90.7	100
July	99.1	99.1	100	100	100	95.1	98.4	100	100	96	91.8	98.6	100	100
August	93.1	93.1	84.5	96.8	100	80.8	92.9	78	84.7	95.3	87.2	75.1	97.3	100
September	100	100	88.2	99.3	100	100	100	100	88.1	100	99.9	96.4	90.5	100
October	100	100	100	88.9	100	100	100	100	100	96.7	100	0	100	100

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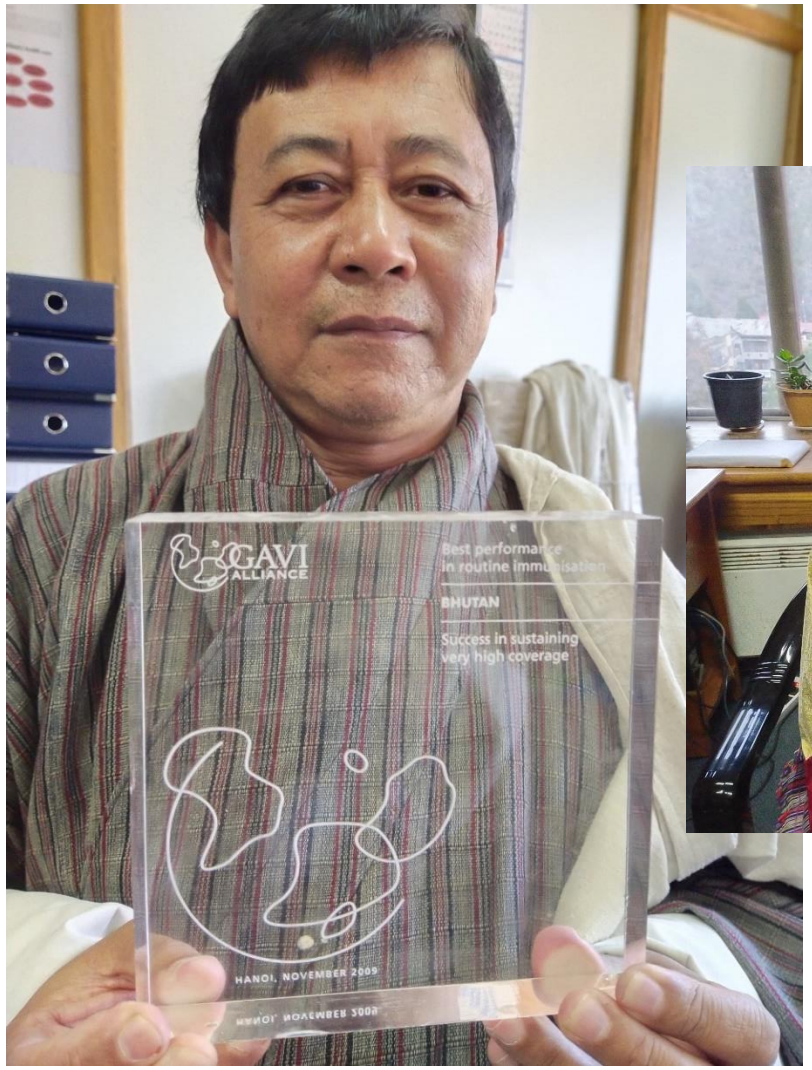

Thank you!

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