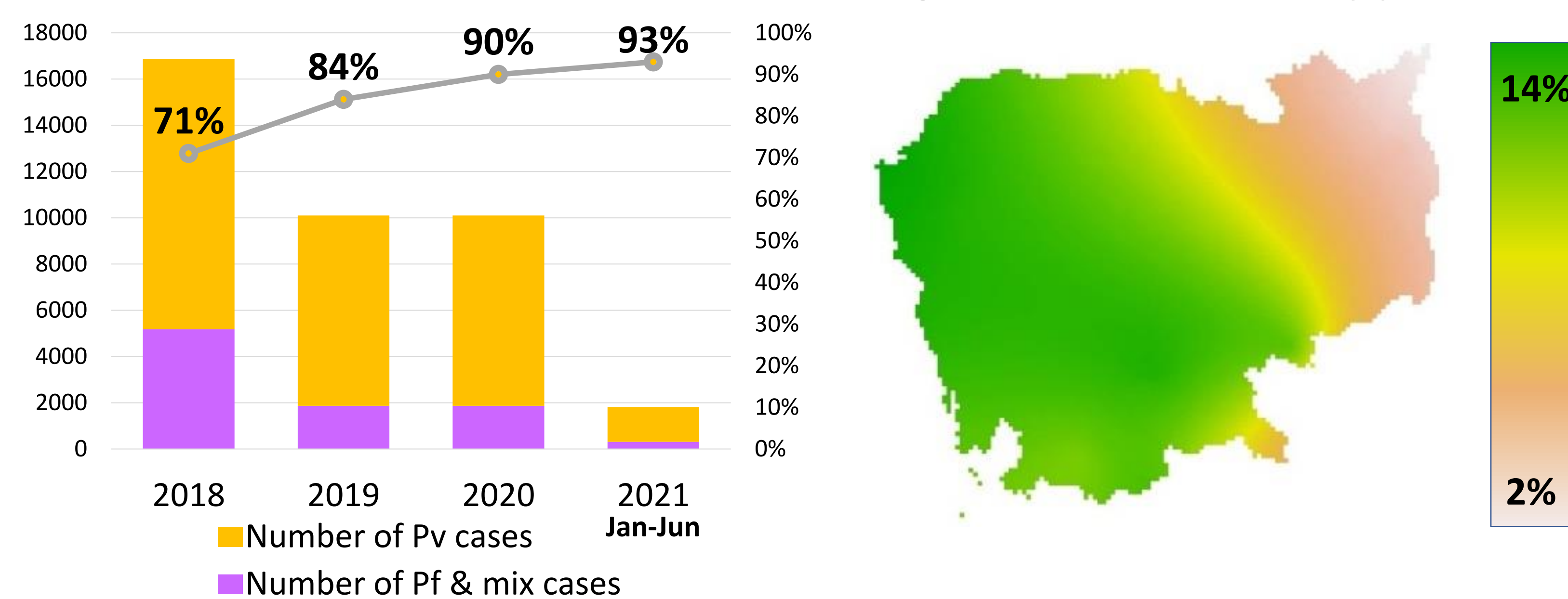


# From evidence to nationwide policy – the rollout of *P.vivax* radical cure with G6PD testing in Cambodia, Nov 2019 to Jun 2021

## BACKGROUND

- While malaria cases has decreased significantly since 2018, *P.vivax* accounts for **90% of cases** in 2020 in Cambodia.
- Glucose-6-phosphate dehydrogenase (G6PD) deficiency is common in Cambodia, affecting **2-14% of total population**<sup>1</sup>.
- With the availability of quality-assured point-of-care testing methods for G6PD deficiency, radical cure has been determined as safe and feasible to roll out at the health center level in Cambodia since Nov 2019.

Figure 1. Percentage of *P.vivax*, '18- Jun'21<sup>2</sup> Figure 2. G6PD deficiency prevalence<sup>1</sup>



## INTRODUCTION AND SCALE UP

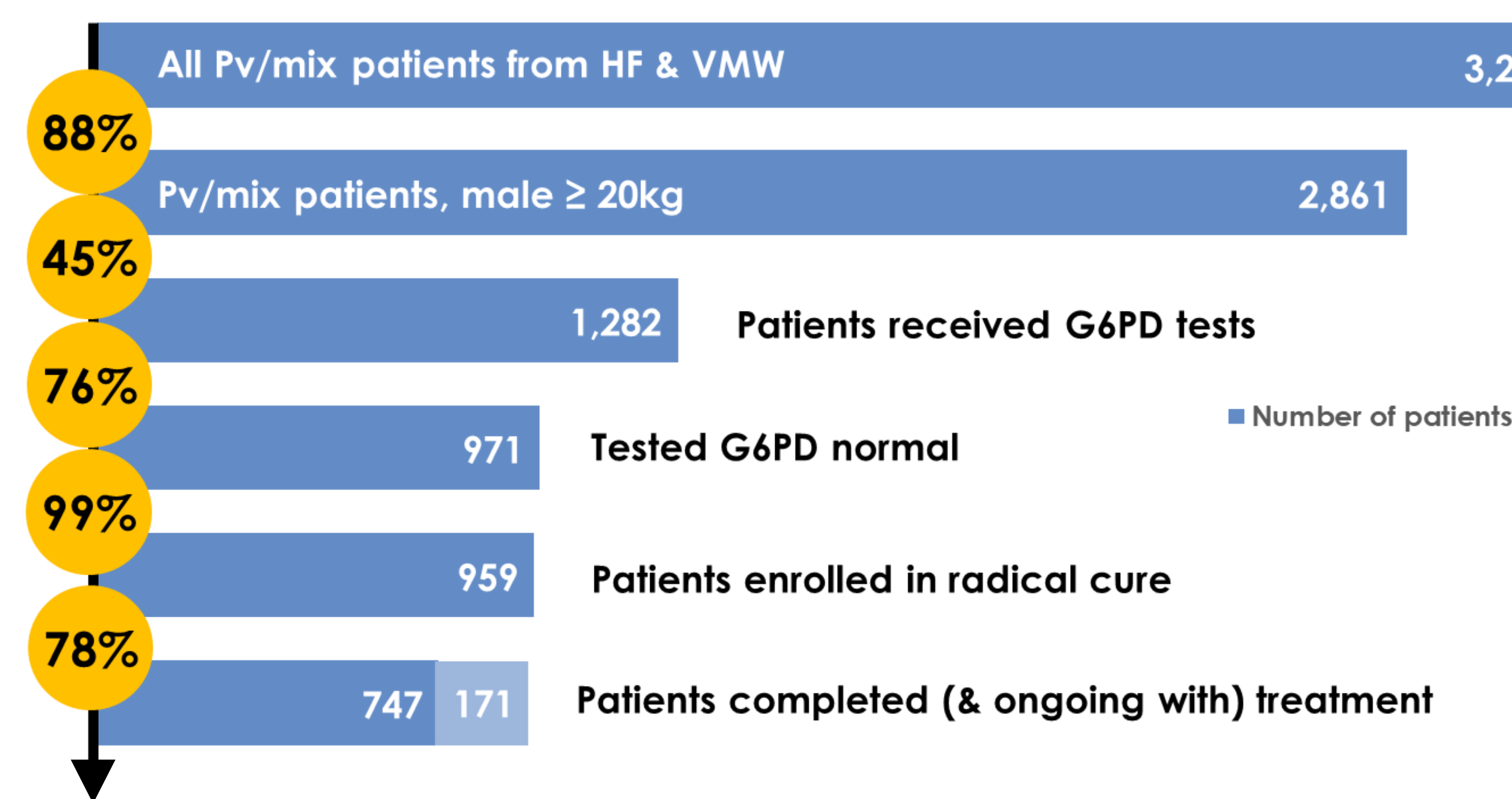
- From Phase 1 to nationwide scale up:
  - Geographic location** has expanded from 88 HFs in 4 provinces, to 324 HFs in the whole country (25 provinces).
  - Diagnostic tool** has been changed from qualitative RDTs to quantitative devices.
  - Eligible population** from only males to both males and females  $\geq 20$  kilograms.
  - Adherence follow ups** have shifted from HF phone calls to VMW in-person visits.
- Both Phase 1 and nationwide scale up **provide PQ14 to G6PD normal patients**. No treatment for G6PD deficient patients.

Figure 3. Radical cure implementation timeline from phase 1 to nationwide scale up



## RESULTS FROM PHASE 1 IMPLEMENTATION

Figure 4. *P.vivax* and mix cases identified, G6PD tested, G6PD normal, enrolled in radical cure, and completed treatment, HF and VMW, Nov 2019-Dec 2020<sup>3,4</sup>

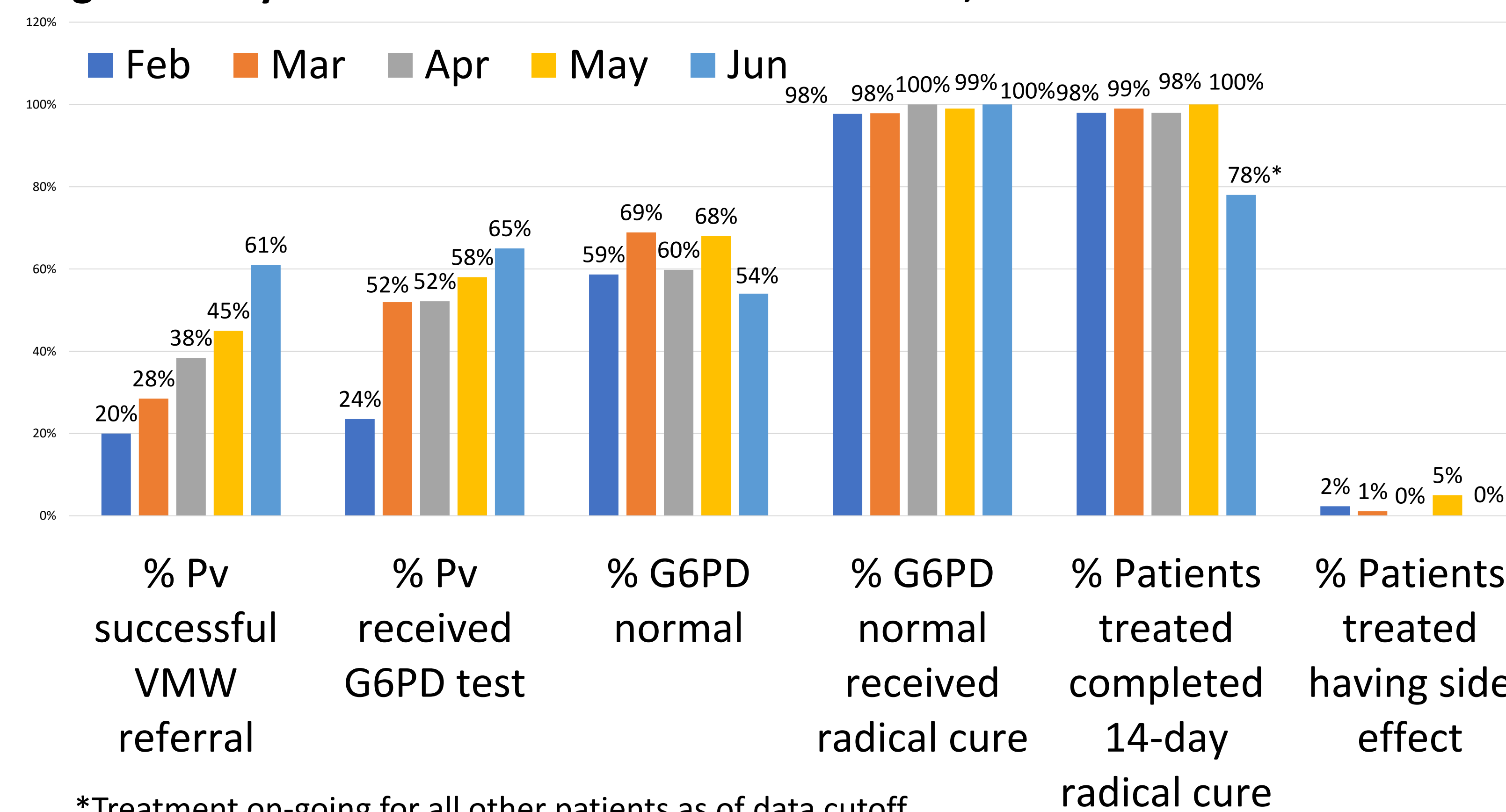


## PRELIMINARY RESULTS, NATIONWIDE SCALE UP

During the first 5 months of nationwide implementation:

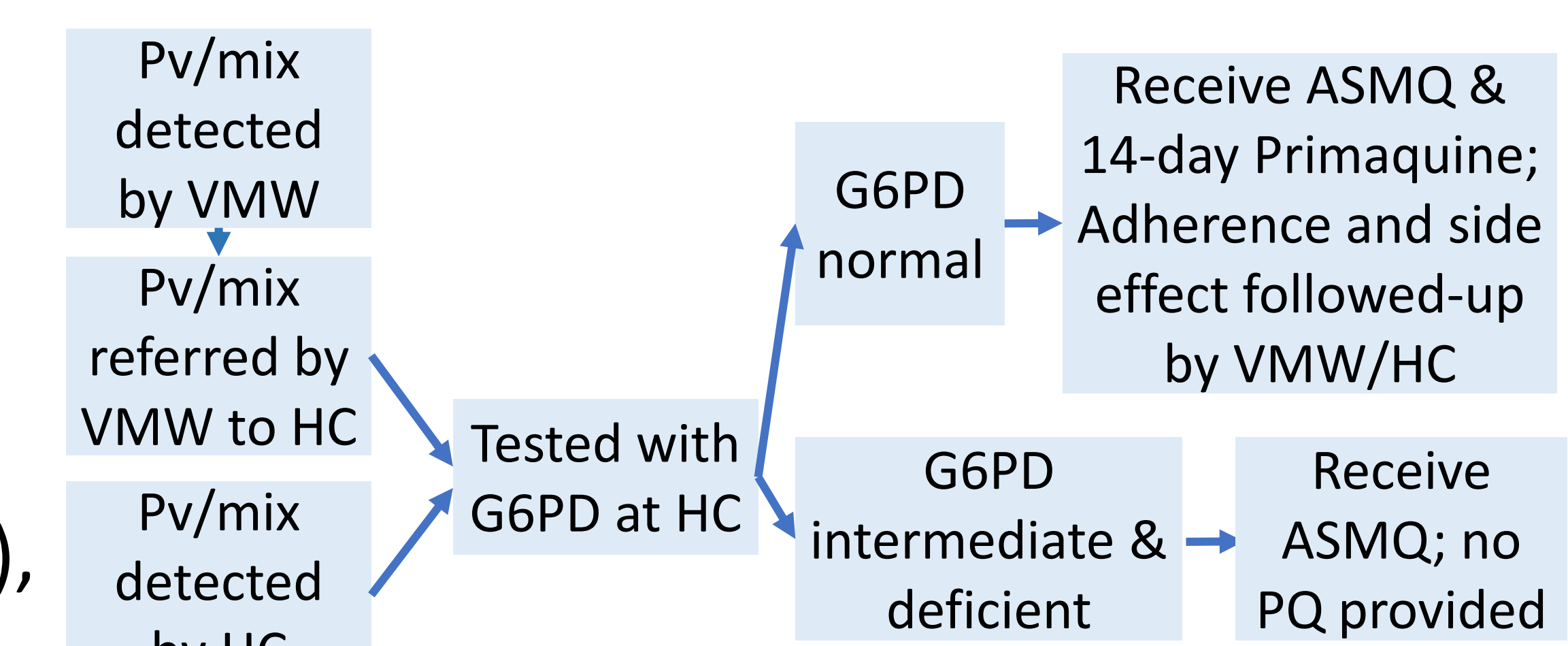
- Among all Pv/mix detected by Village Malaria Workers (VMW), **37.3%** (n=292) successfully referred to health centers (HC)
- Among all eligible Pv/mix, **48.6%** (n=612) received a G6PD test
- Among all tested with G6PD, **61.8%** (n=378) tested G6PD normal
- Among all G6PD normal, **98.9%** (n=374) received radical cure
- Among all received radical cure, **96.8%** (n=180) completed PQ14
- Among all received radical cure, **3.2%** (n=6) reported side effects

Figure 6. Key indicators in nationwide radical cure, Feb to Jun 2021<sup>4</sup>



- In the 14-month Phase 1 implementation from November 2019 to December 2020, **29.6% of all patients with *P.vivax* and mixed infections received safe radical cure (959 / 3,239 patients)**.
- 0.72%** (n=6) reported side effects. 5 out of 6 patients were referred to and assessed by Provincial hospitals. None of them were related to radical cure.

Figure 5. Process of *P.vivax* radical cure administration



## NEXT STEPS

- Strengthen VMW referrals** of patients to HCs for G6PD tests, especially among forest-goers
- Supervision visits** to assess & strengthen HF's capacity to conduct G6PD tests appropriately
- Closer monitoring of data entry** by HC & VMW into MIS and paper-based register book
- Strengthen pharmacovigilance** and adverse event reporting systems
- Operational research to show safety and effectiveness of **other treatment regimen** (e.g. PQ7, TQ, PQ8W if G6PD deficient).
- Explore **alternatives to on-the-job training and supervision** by CNM/PHD/OD, given Covid-19 restrictions

## REFERENCES

- Malaria Atlas Project. Oxford University. 2012.
- Malaria Information System (MIS). CNM. Accessed in Aug 2021
- P.vivax* Radical Cure Phase I Rollout: Evaluation Report. CNM. Dec 2020.
- P.vivax* Radical Cure data collection from partners and CSOs, Nov 2019-Jun 2021

## ACKNOWLEDGEMENTS



Inquiry: Dr Desoley Lek, CNM  
soleycnm@gmail.com