

The project began differently from where it ended. My initial connection was with Dr. Rajani R. Ved, Director of Health at the Bill & Melinda Gates Foundation India, around a research study on frontline health worker retention in maternal and newborn care. Through her feedback I came to understand that retention wasn't the right problem for ANMs and ASHAs, and that maternal and child health was too broad for the kind of focused field study I wanted to conduct. The project shifted to malaria. Dr. Ved connected me to Dr. Amol Patil, the Foundation's Senior Program Officer for Malaria, who in turn connected me to Dr. Samadhan Debaje, WHO Maharashtra State Lead for vector-borne diseases, who became my principal technical mentor. Dr. Santosh assisted during the field component.

Dr. Samadhan pushed the study away from a simple question about whether digital reporting works, toward a more operational one: where does malaria data flow and treatment actually break down in practice? Before fieldwork, he shared substantial programme material with me — WHO's IHIP malaria surveillance assessment, Maharashtra malaria situation reports, India's malaria elimination strategy, the IHIP/VBD reporting architecture, and the standard M1–M4 malaria reporting formats. I used this to develop the research protocol myself, including the rationale, objectives, sampling plan, analysis framework, limitations, and ethics section, as well as a 23-item health worker questionnaire covering respondent roles, recording and reporting practices, where delays occur, digital tool usage, treatment barriers, and IHIP improvement suggestions. Dr. Samadhan reviewed both before fieldwork began.

For the fieldwork, I travelled to Pune and Lonavala and studied the malaria system across multiple levels — a primary health centre, sub-centres, block-level health administration, and district-level malaria and public health offices. I interacted with frontline workers, programme staff, and those responsible for data entry at each level. What became most compelling during these visits was not any single failure point but the movement of information itself: how a detected case travels from a paper record to an informal WhatsApp message to a formal IHIP entry to a higher-level surveillance statistic — and where, at each transition, something slips.

The formal study site was Khadkala PHC and its associated sub-centres in Pune district. I directed data collection from 50 health workers — 41 ASHAs, 4 MPWs, 2 ANMs, one health assistant, one medical officer, and one laboratory technician — with Dr. Samadhan and Dr. Santosh facilitating Marathi administration. I then conducted all data cleaning, analysis, and interpretation.

The study's central finding is that immediate notification and formal digital capture are not the same event. Paper recording, WhatsApp communication, and IHIP entry coexist as parallel layers rather than a single unified system. Key barriers included connectivity gaps, workload and staffing shortages, parallel recording requirements, and delays at each handoff point. The resulting paper — "Barriers in Malaria Data Flow and Treatment Processes in Pune: A Descriptive Analytical Study" — is a deliberately descriptive, operationally grounded account of how malaria surveillance actually functions at the sub-district level, producing policy recommendations centred on mandatory private practitioner reporting and adequate manpower allocation.