

Scheduled Tribe Women and Health Services in India during COVID-19: What the Evidence Can and Cannot Show

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Abstract: Could Scheduled Tribe (ST) women in India reach, enter and use health services during the COVID-19 pandemic? We reviewed the available evidence and audited the published outputs of India's principal health information systems. Evidence exists for individual programmes; beyond them, we located no published population estimate of pandemic-period service use by ST women. Three distinct limitations explain this. Routine facility reporting publishes no social-category breakdown, although such disaggregation is possible and its trade-offs have been documented within the health system. The published tables of the National Family Health Survey report indicators for ST women, but for reference periods that span the pandemic without isolating it. And the beneficiary-tracking system used by auxiliary nurse-midwives records social category at registration without crossing it with service records in its documented reports. The evidence does establish that, over the survey's reference period, ST women were more dependent on public facilities than any other social group, more often received antenatal care from nurse-midwives and allied providers, and had the lowest rates of personal phone ownership and internet use — the tools through which substitute services were offered. We argue that using access frameworks for timely equity monitoring requires populations to be legible to the systems serving them — recorded, used internally and published in time for a response — and propose measures for data, research and social work practice. Claims are bounded to reproductive and maternal health.

Keywords: scheduled tribe women; health service access; COVID-19; India; health information systems; equity monitoring; intersectionality; social work

1 Introduction

In 2018, the Expert Committee on Tribal Health, set up jointly by the Ministry of Health and Family Welfare and the Ministry of Tribal Affairs, produced the first comprehensive account of tribal health in India. It was candid about the obstacle it faced: separate data on the health, health care and health financing of tribal populations were largely unavailable (Expert Committee on Tribal Health, 2018, p. ix). There was no periodic recording of the infant mortality rate among the tribal population before the National Family Health Survey (NFHS). That gap has narrowed: the fifth round (NFHS-5) reports an infant mortality rate of 41.6 deaths per 1,000 live births among Scheduled Tribes. However, the disparity between social groups persists: for 'Others' (those outside the Scheduled Caste (SC), Scheduled Tribe and Other Backward Class (OBC) categories) the rate is 28.0 deaths per 1,000 live births, for the five years preceding the 2019–21 survey (International Institute for Population Sciences [IIPS] &

ICF, 2021, Table 7.2). The gap between ST and 'Others' is therefore 13.6 deaths per 1,000 live births.

What such surveys cannot yet show is how a population fared during a particular emergency. India's pandemic response operated through four channels: reorganised facilities, remote consultation, digital documentation and a redirected community health workforce. This article asks whether ST women could reach, enter and use reproductive and maternal health services through those channels, including whether outreach by Accredited Social Health Activists (ASHAs), Auxiliary Nurse Midwives (ANMs) and primary health centres reached them.

At programme level, evidence exists: a non-governmental organisation (NGO) reports institutional delivery among tribal women registered in its programme in Mysuru district, Karnataka, in 2020–21 (Swami Vivekananda Youth Movement [SVYM], 2021). Beyond such programmes, we located no published population estimate of pandemic-period service use by ST women. Section 7 sets out three reasons: routine facility reporting does not publish social-category breakdowns; the published tables of the national survey that does report ST women cannot isolate the pandemic period; and a beneficiary system holding both social category and service records does not cross them in its documented reports. Each calls for a different response.

An earlier narrative review (Prasanth & Diwakar, 2024) surveyed barriers faced by ST women during the pandemic. The present article differs in design and purpose: it classifies the evidence and audits the data systems, and is concerned with what can be known.

The article proceeds as follows. Section 2 introduces the Scheduled Tribe category and the social work questions it raises, and Section 3 the frameworks used. Section 4 describes the method. Section 5 examines the four channels, and Section 6 examines what the evidence supports. Section 7 sets out the three limitations, Section 8 the responses they call for, and Section 9 concludes.

2 Scheduled Tribe women and the social work question

"Scheduled Tribe" is a constitutional and administrative category. Under Article 342 of the Constitution, communities are notified as Scheduled Tribes state by state. The category covers more than 705 communities differing in language, livelihood and governance, numbering about 104 million people, 8.6 per cent of the population, at the 2011 Census (Expert Committee on Tribal Health, 2018; High Level Committee, 2014). Areas with large tribal populations may be designated under the Fifth or Sixth Schedules, and the Panchayats (Extension to Scheduled Areas) Act 1996 (PESA) recognises customary village assemblies in Fifth Schedule areas. These are constitutional protections for local governance rather than treaty relationships of the kind found in Canada or Aotearoa New Zealand. ST women also live outside Scheduled Areas, including in towns and cities.

The term "indigenous peoples" is contested in India, where official usage relies on the constitutional category. We use "Scheduled Tribe" for the administrative category and its data, and "Adivasi" where sources or communities do. A smaller set of Particularly Vulnerable Tribal Groups (PVTGs) is separately classified; evidence on them is thinner still.

The services examined here reach women through three cadres: the ASHA, a village health worker paid through performance-linked incentives; the ANM, an auxiliary nurse-midwife attached to a sub-centre; and the Anganwadi worker, who runs the village child-care and

nutrition centre under the Integrated Child Development Services scheme. They are not professional social workers, but they perform a function with which social work is concerned: turning a general entitlement into a particular person's receipt of it. The gap between entitlement and receipt, the intermediaries who close it, and populations that administrative systems do not see are the social work questions this article addresses. For ST women, these conditions combine: their access depends on the same intermediaries and public facilities as other rural women and, in remote settings, on the same geography as tribal men, and it is at this intersection that the evidence is thinnest.

3 Access and legibility

We use Levesque et al.'s (2013) patient-centred access framework, which relates five features of services — approachability, acceptability, availability and accommodation, affordability and appropriateness — to five abilities of people: to perceive, seek, reach, pay and engage. The pandemic changed the form of supply. Approachability moved onto digital platforms, availability shifted from village outreach to distant facilities, and engagement came to depend on documentation. Each change raised the ability a woman needed. From Andersen (1995), we take the treatment of the external environment and the health system as determinants of use, and from Carrillo et al. (2011) the classification of barriers as financial, structural or cognitive.

Using these frameworks for timely equity monitoring requires evidence about who encounters services and who is missed. Drawing on work on how states make populations visible (Scott, 1998) and on data justice (Kukutai & Taylor, 2016; Taylor, 2017), we call this condition legibility and operationalise it in three parts: people are recorded in equity-relevant categories when services are delivered; records are used internally to find who is being missed; and disaggregated results are published in time for a response. Legibility concerns measurement and accountability, not receipt of care. Surveys can still compare groups after the event; what its absence prevents is timely comparison. Where categories are reported separately — by caste or by sex, but not both — those at the intersection disappear from view, the problem intersectionality scholarship identifies (Crenshaw, 1989). Being counted also means being visible to the state, a tension taken up in Section 8.

4 Method

The article combines a structured evidence review with an audit of the published outputs of health information systems. Its scope is reproductive and maternal health, where the evidence concentrates; vaccination, teleconsultation and mortality are discussed as context. The pandemic period is defined as March 2020 to March 2022.

Sources were identified in three stages. First, searches were run in several sessions between 3 March 2021 and 28 March 2023 through the MyLoFT platform across Google Scholar, ScienceDirect and Oxford Academic, using four blocks of search strings that combined Scheduled Tribe, tribe or tribal with terms for predictors of access (health-seeking, utilisation, maternal and antenatal care), women's access during the pandemic (telemedicine, COVID-19), implemented responses (mHealth, pandemic health policy, immunisation) and the challenges of eHealth. This stage identified 139 records, of which 29 were retained after screening. Second, in September 2026 we searched the repositories of the Ministry of Health and Family Welfare, the National Health Systems Resource Centre, the National Health Mission and state missions, the Ministry of Tribal Affairs, the Ministry of Statistics and Programme Implementation, the Press Information Bureau and the Demographic and Health Surveys (DHS) Program, and ran web searches combining population terms (Scheduled Tribe, tribal, Adivasi, PVTG), qualifiers (women, maternal, pregnancy), service terms and period terms (COVID-19, lockdown);

organisations known to run tribal health programmes were searched by name. Third, we tracked references. Each source was read in full from its primary document, and figures are cited to the source table; tribal-area figures are taken from the separate tribal-areas section of the Rural Health Statistics. A supplementary log records queries, dates and outcomes.

Sources were classified by three conditions: the population was identified as Scheduled Tribe, Adivasi or PVTG; the analysis concerned women; and the source concerned service access within the pandemic period. Sources meeting all three were direct evidence, divided into quantitative service-use evidence (A1) and qualitative evidence on access and entitlements (A2). Sources meeting two conditions were partial evidence: tribal-area studies that did not identify individual respondents as ST (B), or studies of women without social-category findings (C). Sources on ST populations that did not concern pandemic-period service access were contextual: an adjacent outcome (D), baselines spanning or preceding the period (E, F), a later intervention (G) and facility capacity (H). Commentary without primary measurement was recorded but excluded (I). By "beyond programme level" we mean a population-based estimate, as distinct from monitoring of programme-enrolled women. Table 1 lists the fifteen empirical and contextual sources classified; policy documents, frameworks and system documentation are cited in the text.

Table 1. Classification of the empirical and contextual evidence

Pandemic period: March 2020 – March 2022. Categories are defined in Section 4.

Sl No.	Source	Design	ST-identified	Women	Within period	Principal finding	Category
1	SVYM (2021)	Programme monitoring	Yes	Yes	Yes	96.4% institutional delivery among registered tribal women	A1. Direct, programme service use
2	Barhoi & Dayal (2024)	Qualitative, 26 interviews	Adivasi	Yes	Yes	Temporary workers excluded from medical provisions	A2. Direct, qualitative (entitlements)
3	Ramesh et al. (2022)	Survey, 607 households	Area only	Partly	Yes	Lockdown effects on employment, health and livelihood	B. Tribal area; individuals not identified
4	Sharma et al. (2023)	Rapid survey, 540 patients	No	Yes	Yes	39% reported difficulty accessing services	C. Women; no social-category findings

5	Goyal et al. (2022)	Prospective, 1,374 women	No	Yes	Yes	ANM/ASHA home visits to 69.7%	C. Women; no social-category findings
6	Singh et al. (2023)	Qualitative, 12 interviews, 4 group discussions	No	Yes	Yes	Barriers to maternal car	C. Women; no social-category findings
7	Gupta et al. (2024)	Mortality analysis, n = 765,180	By group	By sex	Yes	ST -4.1 years; women -3.1; reported separately	D. Context: adjacent outcome
8	IIPS & ICF (2021)	National survey	Yes	Yes	Spans period	ST indicators (Table 3)	E. Context: baseline spanning period
9	Leo et al. (2024)	Secondary analysis	Yes	Yes	Spans rounds	Poorest-to-richest aOR 6.66 and 8.91	E. Context: baseline spanning period
10	Kumar et al. (2025)	Cross-sectional, 511 mothers	Yes	Yes	No (2018–19)	68.9% had four ANC visits	F. Context: pre-period baseline
11	Boro & Saikia (2020)	Qualitative	Yes	Partly	No	Cost, distance, transport, provider behaviour	F. Context: pre-period baseline
12	Jose et al. (2014)	Mixed methods	Yes	Yes	No	Full use: 85% tribal, 100% non-tribal	F. Context: pre-period baseline
13	Ade et al. (2024)	Intervention, 109/119 women	Yes	Yes	No (2022–23)	Service use improved after intervention	G. Context: after the period
14	MoHFW (2022)	Administrative statistics	Areas only	—	End of period	Facility and staff shortfalls	H. Context: capacity

15	Wakharde (2021)	Commentary	Yes	Yes	Yes	No primary measurement	I. Commentary, excluded
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Population and setting, by row: 1, Tribal women in an NGO programme, Mysuru district, Karnataka; 2, Adivasi women tea-garden workers, Assam; 3, Rural and tribal households, Tamil Nadu; 4, Maternal and child health patients, six states; 5, Pregnant women, rural Punjab; 6, Rural Haryana; 7, 14 states and union territories; 8, All India; 9, Tribal women, all India; 10, Gond mothers, Jabalpur, Madhya Pradesh; 11, Bodo and Rabha communities, Assam; 12, Tribal and non-tribal women, Wayanad, Kerala; 13, ST pregnant women, Chittoor, Andhra Pradesh; 14, Tribal-area facilities and posts; 15, Tribal women, Nanded, Maharashtra.

Among the sources located, none provides a pandemic-period population estimate of ST women's service use beyond programme-enrolled beneficiaries. aOR: adjusted odds ratio; ANC: antenatal care.

For each information system — the Health Management Information System (HMIS), the Reproductive and Child Health (RCH) portal, NFHS, the eSanjeevani telemedicine platform, the Sample Registration System, the National Sample Survey (NSS) and the Rural Health Statistics — we asked whether its published outputs or documented standard reports identify ST status, and whether any published output reports service use by ST women, recording the document and its date (Table 2). The audit reflects documentation reviewed by September 2026 and does not establish the full capability of underlying records. Where documentation could not be obtained, a system is listed as not audited rather than characterised. A conference abstract on tribal women in Majuli, Assam, could not be retrieved and was not assessed.

Table 2. Audit of health information systems

System	Reporting unit	Social category in records or documented reports	ST women's service use in published outputs	Internal use documented	Source
HMIS	Facility, monthly aggregates	Not established for source registers; no breakdown in audited outputs; options documented	No	Facility performance documented	NHSRC (n.d.-a, n.d.-b)
RCH portal / ANMOL	Individual beneficiary	Recorded at registration; caste-wise registration report	No; service reports not stratified	Due lists and dashboards for each ANM; no review across groups described	National Health Mission (2018, 2024)

NFHS	Household survey	Recorded and published	Yes, but published tables cannot isolate the period	Not applicable	IIPS & ICF (2021)
eSanjeevani	Individual consultation	Not in analysed data	No	Volume monitoring	Sood et al. (2025)
Sample Registration System	Sample registration	No separate ST estimates (as reported 2014, 2018)	No	Not applicable	High Level Committee (2014); Expert Committee (2018)
NSS health rounds	Household survey	Recorded	Yes, but no round covers the pandemic (2017–18; 2025)	Not applicable	MoSPI (2026)
Rural Health Statistics	Facilities and posts	Tribal areas, not individuals	Not applicable	Not applicable	MoHFW (2022)

Not audited: Poshan Tracker, Co-WIN and U-WIN registries, and claims under publicly funded health insurance. HMIS: Health Management Information System; RCH: Reproductive and Child Health; NSS: National Sample Survey; MoSPI: Ministry of Statistics and Programme Implementation.

5 Four channels

The four channels overlap — assisted teleconsultation depends on facilities, and documentation conditions access to both — but are separated here for analysis. In Levesque's terms, each altered a supply-side dimension: facility reorganisation affected availability, remote consultation and documentation affected approachability and the conditions of engagement, and the redirection of the workforce affected all three at the point of contact. In Carrillo et al.'s terms, facility and staff shortfalls are structural barriers, the literacy demands of remote consultation and online registration are cognitive, and difficulty paying for care (Section 6) is financial. Figure 1 maps the channels with the evidence located for each.

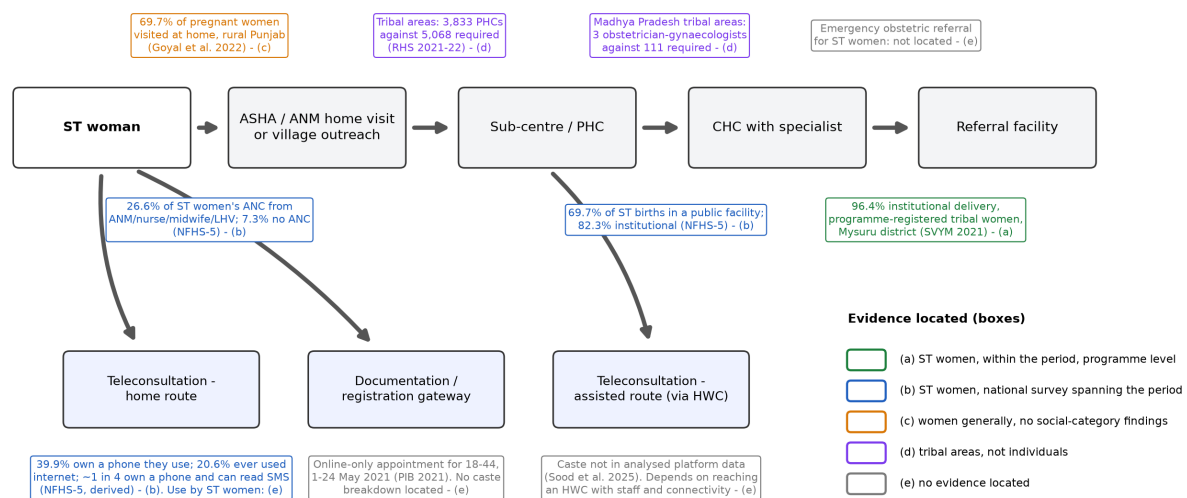


Figure 1. The pandemic access pathway for Scheduled Tribe women, with the evidence located. Arrows show the pathway only; coloured boxes show the level at which service use, readiness or capacity has been measured, not necessarily the connecting transition. CHC: community health centre; HWC: health and wellness centre; PHC: primary health centre; RHS: Rural Health Statistics.

5.1 Facilities

Guidance issued on 16 May 2021 provided that the primary health centre, community health centre or sub-district hospital in peri-urban, rural and tribal areas "shall be the Dedicated COVID Health Centre", with a minimum of 30 beds, while "retaining non-COVID essential services", preferably in a separate block (Ministry of Health and Family Welfare [MoHFW], 2021, §5.2). The guidance, in other words, intended continuity. The question is whether continuity was achieved in facilities of the size and staffing described below; for ST women, the evidence we located cannot say.

It matters because ST women depend on public provision more than any other social group. Of their births in the five years before NFHS-5, 69.7 per cent took place in a public facility and 12.1 per cent in a private one, against private shares of 29.3 per cent for OBC women and 34.6 per cent for other women; their institutional delivery rate, 82.3 per cent, was the lowest of any group (IIPS & ICF, 2021, Table 8.13).

The facilities were also under-provided. As of 31 March 2022, tribal areas had 25,383 sub-centres against a requirement of 33,870, 3,833 primary health centres against 5,068, and 960 community health centres against 1,254 (MoHFW, 2022). Against a norm of one obstetrician-gynaecologist per community health centre, tribal areas of Madhya Pradesh, for example, had three in post against 111 required, Odisha 25 against 134, and Arunachal Pradesh one against 57. These figures were recorded at the close of the pandemic's second year and describe capacity, not the pandemic's effect.

At programme level, SVYM (2021) reports 96.4 per cent institutional delivery among tribal women in its reproductive and child health programme in H.D. Kote and Saragur taluks of Mysuru district in 2020–21, with more than 400 high-risk pregnancies served and 9,975 tribal

people reached through mobile health units. The denominator is programme-registered women: the figure documents a high institutional-delivery proportion during 2020–21, but not outcomes among women outside the programme. For practice, where the nearest delivery facility has been redesignated, a referral becomes an instruction to travel, and facilitating access means arranging transport and accompaniment.

5.2 Remote consultation

Remote consultation took two routes. The home route connected patients directly to providers and required a usable device; the assisted route connected a health worker at a health and wellness centre to a remote doctor.

For the home route, 39.9 per cent of ST women aged 15–49 have a mobile phone they themselves use, against 63.4 per cent of other women; 20.6 per cent have ever used the internet, against 44.2 per cent; and among phone owners, 64.4 per cent can read a text message (SMS), against 78.7 per cent (IIPS & ICF, 2021, Tables 3.6 and 14.22). Together, these suggest that roughly one ST woman in four both has a phone she uses and can read an SMS. This is a derived estimate; devices can be borrowed, and relatives can help. Oxfam India (2022) found the caste gap in household phone access narrowing between 2018 and 2021, while the gap between men (61 per cent) and women (31 per cent) remained wide: household access and a woman's own access are different things.

The assisted route removes the need for a personal device but still depends on reaching a functioning centre with staff and connectivity. We located no evidence on whether either route reached ST women. The platform's published analysis of more than 163 million consultations reports platform, state, age, gender and diagnosis, and its authors note that the data "are unable to capture how gender intersects with rurality, caste, socioeconomic status or geography in shaping access" (Sood et al., 2025). For practice, the assisted route therefore depends on an available worker who can communicate with the woman, which a redeployed worker or a language mismatch can remove.

5.3 Documentation

Vaccination for people aged 18–44 opened on 1 May 2021 with online appointment only. On-site registration was enabled on 24 May 2021, at government centres and at the discretion of states (Press Information Bureau, 2021). The same release acknowledged that "people requiring facilitated cohort's facility and those without access to internet or smart phones or mobile phones may still have limited access for vaccination". In Levesque's terms, access came to depend not only on the ability to reach a centre but on the ability to engage with a digital system before arriving. From outside government, Oxfam India (2022) identified three linked exclusions — lack of internet-capable phones, limited digital and English-language fluency, and slot information circulating mainly online — and concluded that "equity was no longer the primary goal" (p. 28), while describing its evidence as anecdotal. We located no caste or tribe breakdown of vaccination data, and so no measure of the effect on ST women. For practice, registering another person, resolving an authentication failure and carrying online information to people offline are tasks that community workers, volunteers and relatives can perform, and that bear on who is vaccinated.

5.4 The frontline workforce

The May 2021 guidance assigned both cadres additional duties. ASHAs were to conduct periodic surveillance for influenza-like illness with village health committees and distribute

pulse oximeters; ANMs were to be trained in rapid antigen testing, sub-centres were to run fever clinics, and ANMs could act as nodal persons for COVID Care Centres (MoHFW, 2021).

This creates a potential pressure for ST women, who more often reported antenatal care (ANC) from the combined category of ANM, nurse, midwife or lady health visitor (LHV). Among ST women, 55.2 per cent received ANC from a doctor, and 26.6 per cent from this category, against 70.2 and 17.7 per cent among other women; 7.3 per cent received none, the highest share of any group (IIPS & ICF, 2021, Table 8.3). Doctors remain their most common provider, but a larger share of their care depends on these providers. The ANM cadre was short-staffed: tribal areas of Madhya Pradesh had 2,253 female health workers and ANMs at sub-centres against 3,263 required, with 1,984 sanctioned posts vacant; Himachal Pradesh had 22 against 106 required, and Karnataka 101 against 195 (MoHFW, 2022). We located no measure, for ST women, of whether the added duties displaced antenatal contact.

Frontline contact can be measured. In rural Punjab, ANMs and ASHAs visited about 69.7 per cent of 1,374 pregnant women at home between October 2020 and May 2021 (Goyal et al., 2022). We located no comparable measure for ST households. For practice, because ASHAs are paid through task-linked incentives, additional duties raise questions about both service continuity and income that emergency workforce planning should address.

6 What the evidence supports

The direct evidence beyond SVYM is qualitative. In Assam, Adivasi women employed as temporary tea-garden workers described exclusion from medical provisions available to permanent workers during the pandemic (Barhoi & Dayal, 2024). The study shows that entitlement depended on employment status; it cannot show how widely this applied or how it changed service use. Two further bodies of evidence bear on the question without answering it.

The first is mortality. Using NFHS-5 households interviewed in 2021, Gupta et al. (2024) estimated that life expectancy in India fell by 2.6 years between 2019 and 2020, implying about 1.19 million excess deaths. The loss was 4.1 years for Scheduled Tribes, against 1.3 years for high-caste Hindus — comparable to or larger than the losses of Native American, Black and Hispanic populations in the United States that year, as the authors note. Women's estimated loss (3.1 years) exceeded men's (2.1), though the authors note that the difference is not statistically established. This is mortality, not service access, and the two are connected only by inference; the study also reports social group and sex separately.

The second is the NFHS-5 position, estimated over reference periods that span the pandemic (Table 3). ST children had the highest under-five mortality of any group, 50.3 per 1,000 live births against 32.8 among other children (IIPS & ICF, 2021, Table 7.2). ST antenatal care from a skilled provider (81.8 per cent) and institutional delivery (82.3 per cent) were the lowest of any group, compared with 87.9 and 91.2 per cent among other women, and ST women had the lowest rates of phone ownership and internet use. Yet reported full immunisation among children aged 12–23 months was similar across groups (76.5 per cent ST, 75.6 per cent other), and more ST children under six had received a service from an Anganwadi centre (75.4 per cent against 61.6 per cent). These are child indicators, but they show that ST households were not uniformly underserved: disadvantage concentrated in facility-based maternal care and digital access, where the pandemic response placed its weight. Nor are ST women uniformly disadvantaged on economic measures: they report higher house (47.0 per cent) and land (39.0 per cent) ownership, alone or jointly, than any other group (Table 14.22).

Table 3. Scheduled Tribe position on NFHS-5 indicators, 2019–21

Indicator	Reference population	ST	SC	OBC	Other	Source
Neonatal mortality (per 1,000)	Births in the 5 years before the survey	28.8	29.2	24.3	19.5	Table 7.2
Infant mortality (per 1,000)	as above	41.6	40.7	34.1	28.0	Table 7.2
Under-five mortality (per 1,000)	as above	50.3	48.9	40.5	32.8	Table 7.2
ANC from a skilled provider (%)	Women with a live birth in the 5 years before the survey, most recent birth	81.8	83.0	85.5	87.9	Table 8.3
ANC from a doctor (%)	as above	55.2	58.2	62.5	70.2	Table 8.3
ANC from ANM/nurse/midwife/LHV (%)	as above	26.6	24.7	23.0	17.7	Table 8.3
No antenatal care (%)	as above	7.3	6.7	6.1	5.0	Table 8.3
Institutional delivery (%)	Births in the 5 years before the survey	82.3	87.3	89.5	91.2	Table 8.13
Public facility delivery (%)	as above	69.7	68.1	59.8	55.9	Table 8.13
Private facility delivery (%)	as above	12.1	18.9	29.3	34.6	Table 8.13
Full immunisation (%)	Children 12–23 months	76.5	76.7	77.0	75.6	Table 9.4
Any Anganwadi service, past 12 months (%)	Children under 6	75.4	70.5	67.4	61.6	Table 9.18
Owns a mobile phone she uses (%)	Women 15–49	39.9	48.3	54.6	63.4	Table 14.22
Can read an SMS (%)	Women 15–49 owning a phone	64.4	62.8	69.8	78.7	Table 14.22

Ever used the internet (%)	Women 15–49	20.6	27.0	33.3	44.2	Table 3.6
Owens a house, alone or jointly (%)	Women 15–49	47.0	43.3	44.9	35.3	Table 14.22
Owens land, alone or jointly (%)	Women 15–49	39.0	30.2	33.8	27.1	Table 14.22

"Other": the NFHS category for respondents not identifying as SC, ST or OBC. ANC: antenatal care; LHV: lady health visitor. Institutional delivery also includes NGO or trust facilities, so public and private shares do not sum to it. Indicators refer to periods spanning the pandemic; they are not pandemic-period measures.

Within the category, the gradient is steep. Among tribal women in NFHS-4 and NFHS-5 (64,144 and 67,263 cases), Leo et al. (2024) found that the poorest had seven to nine times the odds of the richest of reporting difficulty paying for their own care (adjusted odds ratios 6.66, 95% confidence interval 5.12–8.66, and 8.91, 7.57–10.48). The point estimates suggest a steeper gradient in NFHS-5, but a between-round comparison is needed to establish change. Whether PVTGs sit at the bottom of this gradient is unmeasured in the sources we located.

NFHS-5 fieldwork was conducted in two phases, the first ending in January 2020 and the second in April 2021, and reference periods vary by indicator, most covering births in the preceding five years. The published tables describe a period that contains the pandemic; they do not measure it. Read together, these sources indicate a larger mortality shock among ST communities than among high-caste Hindus, and lower maternal-service use among ST women over the NFHS-5 reference period. They do not show how those services changed for ST women while the pandemic was underway.

7 Three limitations

Table 2 reports the audit. The pattern separates into three limitations, which the audit can demonstrate more securely than it can explain. Figure 2 summarises them, the responses discussed in Section 8, and the conditions of legibility documented for each system.

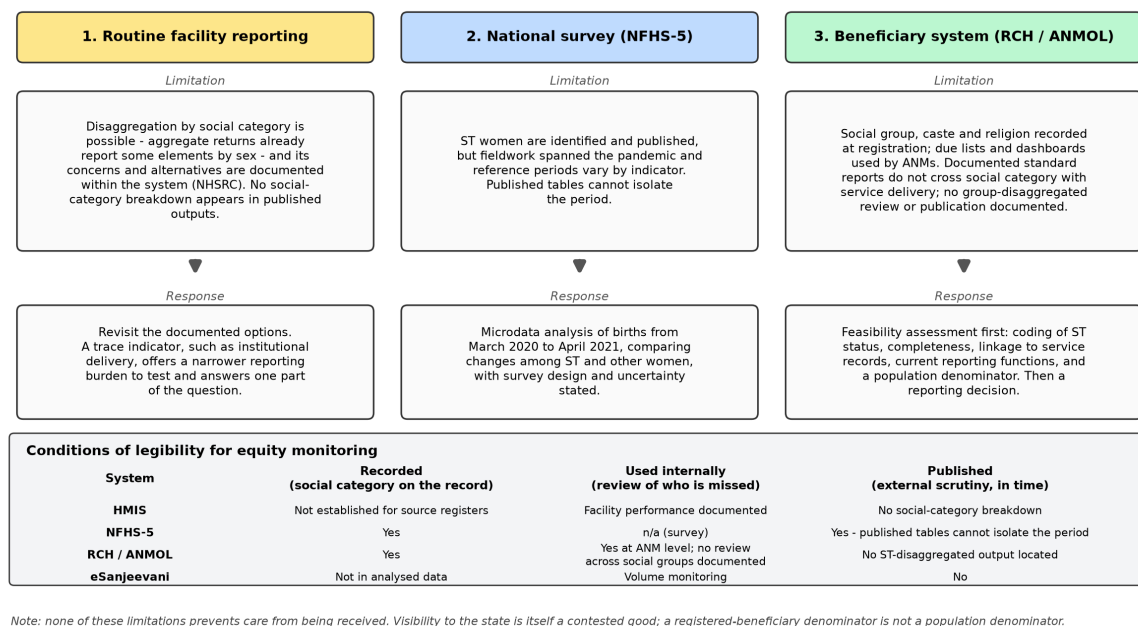


Figure 2. Three limitations, their responses, and the conditions of legibility documented for each audited system.

Routine facility reporting. HMIS aggregates services recorded in facility registers into monthly facility returns (National Health Systems Resource Centre [NHSRC], n.d.-b). Aggregate returns can carry separate counts for groups — some elements are already reported by sex — but no social-category breakdown appears in published outputs. An NHSRC training presentation illustrates the workload involved: reporting all data elements "as SC/ST/others" would multiply them threefold at sub-centre level. It notes risks to accuracy, to reliability when aggregating from facilities that do not collect such breakdowns, and of added work "with no improved use", and it evaluates four alternatives: sentinel sites, sampled registers, a few disaggregated "trace" indicators — its examples include institutional delivery — and reliance on surveys (NHSRC, n.d.-a). The presentation documents concerns and options, not a dated decision, and one option fits the question asked here. It closes by asking: "What is the use that has been made with current SC/ST data as available from surveys. Is it only to make a point?"

Surveys. NFHS publishes maternal and child health indicators for ST women, including the mortality and service indicators in Table 3. Its limitation is temporal: fieldwork spanned the pandemic, and the published tables do not separate pandemic-period events. The mortality figures that open this article illustrate the point: they cover births in the five years before interviews conducted between 2019 and 2021, and so describe a period that mostly precedes the pandemic. The microdata may allow a partial period-specific analysis (Section 8).

The beneficiary system. The RCH portal and its field application ANMOL (ANM Online) track individual women through pregnancy. The ANMOL manual records the registration of "social group, caste, religion" (National Health Mission [NHM], 2024, p. 25), and the portal's maternal health module includes a "Registration Count Religion/Caste/Class Wise" report at state, district and village level (NHM, 2018). Its reports on institutional delivery, antenatal and postnatal tracking, and maternal death are not stratified by caste, and we located no published ST-disaggregated output. The system is used internally: the ANMOL dashboard shows each ANM "the services that have been provided to them along with those which are due", with due

lists and work plans (NHM, 2024, p. 12), but no review across social groups is described. Its denominator is registered women, so even a stratified report would describe registered ST pregnancies rather than all ST pregnancies. A remedy that ignored this would reproduce the original problem at a larger scale. How ST status is coded, how complete the field was in 2020–22, and whether it links reliably to service records are not established. A feasibility assessment could answer these questions in a few districts. It would examine the social-group field in a sample of registrations for completeness and consistency; check whether delivery, antenatal and postnatal records link to it; compare registered pregnancies in each social group with the number expected from population estimates, to gauge registration coverage; and test whether existing report functions can be filtered by social group. Each step uses records the system already holds.

The gap has long been recognised. The High Level Committee (2014) found that disaggregated data on tribal health "are not easily available. They are subsumed in the general population" (p. 192), that "there is no data generated for the Scheduled Tribes" on mortality, and that "there is no way to monitor or evaluate the program" (p. 197). The Expert Committee on Tribal Health (2018), attempting the analysis four years later, found the Sample Registration System unable to supply separate ST estimates. Among the systems we audited, we located no published output that would have allowed ST women's service use to be monitored during the pandemic.

The reviewed studies illustrate a contrast between targeted ST research and rapid multisite surveys. A six-state survey of maternal and child health access during the first lockdown, co-authored by the Indian Council of Medical Research's National Institute for Research in Tribal Health, found 39 per cent of 540 patients reporting difficulty in accessing services — citing transport, unavailable hospital services and interrupted outreach — but did not report caste- or tribe-specific findings (Sharma et al., 2023); the same institute's district studies are carefully ST-specific (Kumar et al., 2025). As a 2024 study of ST pregnant women noted, "no recent estimates for maternal mortality among tribal women are available separately" (Ade et al., 2024, p. 3856).

8 Toward answerability

Data. For routine reporting, the options have been specified within the health system, and its concerns about accuracy and workload deserve engagement. A trace indicator, such as institutional delivery, offers a narrower reporting burden to test and would answer one part of the access question (NHSRC, n.d.-a). In practice, this could mean a pilot reporting institutional deliveries and completed antenatal care by social category at sub-centre level each quarter, in districts with substantial ST populations, and assessing workload, completeness, an appropriate population denominator and the capture of referrals across facility boundaries. The concern about "no improved use" describes past use rather than potential, and is best met by an accountability mechanism. For the beneficiary system, the first step is the feasibility assessment outlined in Section 7. If its conditions hold, district-level caste-disaggregated maternal service reporting becomes a reporting decision.

Three conditions qualify any such reform. The first is control. Being counted is also being made visible to administration and to categories a community did not choose, so the practical question is what role ST communities and their representative bodies have in defining categories, obtaining their own data and deciding what is published. Manitoba, Canada, offers an instructive example. After the collection of Indigenous identifiers became mandatory in May 2020, government reporting found that First Nations people accounted for "17% of deaths, 33% of hospitalizations, and 55% of intensive care unit (ICU) admissions" while representing less

than 12 per cent of the population (as cited in Nickel et al., 2024). Nickel et al.'s own analysis of testing, infection and vaccination drew on a research file governed by a tripartite agreement with the First Nations Health and Social Secretariat of Manitoba, under the OCAP principles of ownership, control, access and possession. India's constitutional arrangements differ, but the combination — identifiers that reveal disparity, held under arrangements that give communities a say — offers a principle for locally negotiated arrangements. The second condition is confidentiality: disaggregation for small populations such as some PVTGs risks identifying individuals, and safeguards should be designed with communities. The third is consequence, which the health system's own training material puts more sharply than we could, in asking whether disaggregated data is used or serves "only to make a point" (NHSRC, n.d.-a). Disaggregated data improves services only where a finding triggers a review, a reallocation and an obligation to explain; a published table without such a mechanism is a document, not an accountability instrument.

Research. NFHS-5 microdata carry social category and sex on each record, which permits comparing indicators for ST women whose births fell between March 2020 and April 2021 with those whose births fell earlier. Delivery can be dated by the date of birth, while other outcomes depend on the timing variables available; antenatal care for a pandemic-period birth may have begun before March 2020. The pandemic-period subsample will be small, and phase allocation is confounded with state. Comparing changes among ST and other women within the same states could identify differential changes, subject to adequate samples, survey-design adjustment and explicit assumptions; pooling states would limit interpretation to the pooled population. Primary research is also needed on ST women's own accounts of seeking care, on frontline contact with ST households, and on differences within the category, especially for PVTGs.

Practice. Mechanisms for identifying missed services already exist: ANMOL due lists and dashboards, and village health and nutrition committees, to which the pandemic guidance assigned a monitoring role. Social workers are placed to ask whether overdue services are followed up, whether ST women are registered completely enough to appear on due lists, whether anyone compares services due and received across social groups, and what part ST women's organisations and the gram sabhas recognised under PESA play in that review. Where administrative data are silent, testimony, collective organisation and rights-based advocacy remain means of redress; better data would add to them, not replace them.

Social workers in health, community and advocacy settings can work alongside ASHAs, ANMs, Anganwadi workers and community organisations — who already identify and raise failures — to connect individual cases to patterns. One such feedback loop runs from an overdue service to an agreed follow-up, to escalation where follow-up fails, and to a recorded response from the body responsible: the district health society, the village committee or the gram sabha.

9 Conclusion

On the evidence we located, whether ST women in India could reach, enter and use health services during the pandemic can be answered at programme level but not beyond it. Three limitations explain this: routine facility reporting publishes no social-category breakdown, although options exist within the system; the published tables of the national survey that report ST women cannot isolate the period; and a beneficiary system that records social category does not cross it with services in its documented reports. They require different responses — piloting a reporting option, period-specific survey analysis, and a feasibility assessment. For social

work, the task is to press for these changes and to connect individual follow-up to collective review.

What the evidence does establish is the position around the pandemic. Over the survey's reference period, ST women were more dependent on public facilities than any other group, more often received antenatal care from the nurse-midwife category whose members were given additional pandemic duties, and had the lowest rates of phone ownership and internet use. Their disadvantages were specific rather than general.

The government's own committees identified the data gap in 2014 and 2018, and national surveys have since narrowed part of it. What remains is timely monitoring. Where emergency responses rely on channels that presume a device, a document or literacy, and monitoring does not show who was reached, the people least able to meet those presumptions are also those about whom least can be said while there is still time to act.

Limitations

The first search stage under-represented NGO programme reports; SVYM's was found only at the second, and more probably exist. The audit reflects published outputs and documentation reviewed by September 2026, not the full capability of underlying records or every system version during 2020–22, and the systems listed below Table 2 were not audited. Survey figures span the pandemic rather than measure it. Claims are bounded to reproductive and maternal health. We write as social work researchers, not as members of the communities discussed, whose own accounts are largely missing from the evidence and from this article.

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