Science Discovery Health
2026, Vol. 1, No. 4, pp. 103–109
https://doi.org/10.11648/j.sdh.20260104.11

Research Article

Dynamics, Challenges, and Prospects of CRVS Systems in Southern Ethiopia: A Qualitative Study of Dilla City and Wonago Woreda

Asebe Awol[1, *], Melkamu Gezehagn[2]

[1]Center for Studies of Women, Children and Youth (CSWCY), Dilla University, Dilla, Ethiopia
[2]Sociology Department, Dilla University, Dilla, Ethiopia

Abstract

Civil Registration and Vital Statistics (CRVS) systems are fundamental to governance, rights protection, and evidence-based development planning. Despite legal and structural reforms in Ethiopia, registration completeness remains significantly low. This qualitative study examined the status, operational challenges, community perceptions, and opportunities surrounding vital events registration (births, deaths, marriages, and divorces) in the Gedeo Zone, specifically contrasting the urban context of Dilla City Administration with the predominantly rural setting of Wonago Woreda. Grounded in the Socio-Ecological Model (SEM), the study utilized a qualitative inquiry design comprising 14 Key Informant Interviews (KIIs), 5 Focus Group Discussions (FGDs, n=25), and document reviews. The collected data were analyzed using thematic analysis. The findings reveal that while functional registration coverage at the kebele level is high (88.2%), actual completeness rates remain critically low, with birth registration at approximately 30% in Dilla City and even lower rates recorded in Wonago Woreda. Systemic barriers include supply-side deficits (inadequate digital infrastructure, lack of logistics, chronic personnel turnover), demand-side constraints (low literacy, lack of immediate perceived utility, financial burdens), socio-cultural norms (mourning practices, traditional birth customs), and weak horizontal inter-agency coordination. Conversely, opportunities lie in leveraging health extension networks, deploying decentralized mobile registration technologies, expanding public-NGO partnerships, and strengthening local political leadership. The study underscores the necessity of multi-sectoral integration and community-anchored interventions to transform passive registration into an active, equitable CRVS framework.

Keywords

Civil Registration, CRVS, Vital Events, Socio-Ecological Model, Qualitative Research, Dilla City, Wonago Woreda, Gedeo Zone, Ethiopia

*Correspondence: Asebe Awol (asebe.awol@du.edu.et)

Received: 6 October 2026; **Accepted:** 17 October 2026; **Published:** 6 November 2026

Copyright: © The Author(s), 2026. Published by Science Publishing Group. This is an **Open Access** article, distributed under the terms of the Creative Commons Attribution 4.0 License (http://creativecommons.org/licenses/by/4.0/), which permits unrestricted use, distribution and reproduction in any medium, provided the original work is properly cited.

1. Introduction

1.1. Background of the Study

Civil Registration and Vital Statistics (CRVS) systems encompass the continuous, permanent, compulsory, and universal recording of vital occurrences and legal characteristics of the population, including live births, deaths, fetal deaths, marriages, divorces, annulments, adoptions, and judicial separations. Unlike periodic data collection mechanisms such as population censuses and demographic surveys, functional CRVS systems continuously generate reliable, localized demographic and public health data essential for national planning, resource distribution, and progress monitoring across socio-economic sectors.

Beyond their administrative utility, civil registration records confer essential legal identities, enabling individuals to claim fundamental human and socio-economic rights, including healthcare, education, social protection, property ownership, and political participation. Internationally, universal civil registration is recognized as a catalyst for sustainable development, directly anchored in Sustainable Development Goal (SDG) Target 16.9 ("legal identity for all, including birth registration, by 2030"). Regionally, the African Union's *Agenda 2063* and the *African Programme on Accelerated Improvement of Civil Registration and Vital Statistics (APAI-CRVS)* emphasize universal registration as a critical mandate for inclusive growth [4].

Globally, an estimated 25% of children under age five remain unregistered, while 40% to 60% of global deaths go unrecorded, mostly concentrated in sub-Saharan Africa [13, 15]. In Ethiopia, despite statutory reforms—notably Proclamation No. 760/2012 and its revision Proclamation No. 1049/2017—completeness rates remain among the lowest in sub-Saharan Africa [5-7, 10]. National statistics indicate that despite coverage extending across over 90% of local *kebeles*, national registration completeness stands at approximately 20.4% for births, 10.3% for deaths, 8.2% for marriages, and 5.1% for divorces.

1.2. Statement of the Problem

The structural gap between physical service availability and actual registration completeness creates a "scandal of invisibility" in developing contexts like Ethiopia. Unregistered populations are systematically excluded from official statistics, eroding government capacity for evidence-based policymaking, epidemic surveillance, and targeted welfare distribution.

In the Gedeo Zone of the Southern Nations, Nationalities, and Peoples' Region (SNNPR), official administrative evaluations reveal that while 142 out of 161 *kebeles* (88.2%) have established civil registration centers, overall vital events registration completeness averaged only 34.5% of annual targets over a five-year period [8]. When benchmarked against estimated total demographic occurrences, cumulative rates recorded since conventional rollout in 2016 reach only 21.1% for births, 7.5% for deaths, 8.2% for marriages, and 2.1% for divorces.

Crucially, the comparative operational realities between urban centers (e.g., Dilla City Administration) and rural agrarian settings (e.g., Wonago Woreda) remain insufficiently examined in existing empirical literature. Prior studies in Ethiopia have either focused predominantly on quantitative determinants or restricted their scope to specific urban centers. There is a distinct empirical knowledge gap regarding how localized socio-cultural practices, structural infrastructure deficits, and administrative dynamics interact within contrasting urban and rural micro-environments. This study addresses this gap by conducting a qualitative inquiry in Dilla City Administration and Wonago Woreda.

1.3. Objectives of the Study

The overarching objective of this study was to explore the challenges and opportunities surrounding vital events registration in Dilla City Administration and Wonago Woreda, Gedeo Zone, Ethiopia. Specific objectives included:

1) To examine the current status and operational performance of vital events registration in the study areas.
2) To identify institutional, technological, and socio-economic challenges hampering CRVS implementation.
3) To explore community perceptions, attitudes, and levels of awareness regarding vital registration practices.
4) To identify existing structural and community-level opportunities for optimizing CRVS performance.

1.4. Research Questions

1) What is the current operational status of vital events registration across urban (Dilla City) and rural (Wonago Woreda) study sites?
2) What are the key institutional, structural, socio-cultural, and financial challenges impeding civil registration?
3) How do urban and rural community members perceive the legal utility and necessity of vital events registration?
4) What actionable opportunities exist to enhance the completeness and accessibility of the CRVS system in the region?

2. Conceptual Definitions Framework

1) *Vital Events:* Defined by the United Nations Statistical Division (UNSD) as demographic events pertaining to an individual's life course, including live births, deaths, fetal deaths, marriages, divorces, annulments, adoptions, and legitimations [14]. Priority registration focuses on births, deaths, marriages, and divorces.
2) *Civil Registration:* The universal, compulsory, continuous, and permanent legal recording of the occurrence

and characteristics of vital events in accordance with national statutory mandates.

2.1. Operational Approaches: Passive vs. Active Registration

Civil registration systems operate through either passive or active modalities:

1) *Passive Registration:* The conventional model where citizens are required to independently report occurrences to centralized administrative offices. While cost-effective in densely populated urban settings with strong civil awareness (such as Dilla City), passive systems frequently fail in rural environments due to physical distance, transportation costs, and procedural friction.
2) *Active Registration:* A proactive model where administrative agents, health extension workers (HEWs), or community registrars actively identify and log vital occurrences within local communities. Active systems significantly improve completeness in rural and agrarian regions like Wonago Woreda.

2.2. Empirical Literature Review

Empirical inquiries across Ethiopia highlight multi-level barriers to CRVS performance [9]:

Documented that service delays (56.5%), physical distance to *kebele* offices (48.5%), service costs (44.0%), and low public awareness (27.1%) were primary determinants of non-registration in Hawassa City [1].

1) *Tadesse & Gebreyesus* [12] found in Tigray Region that only 30% of mothers registered child births, citing inadequate registrar staffing, administrative distance, and lack of political priority as critical bottlenecks.
2) *Muhumad* [11] identified institutional underfunding, mobile pastoralist lifestyles, lack of cross-sectoral integration, and absent legal prioritization in the Somali Region.

2.3. Theoretical Framework: Socio-Ecological Model (SEM)

This study employs the *Socio-Ecological Model (SEM)* to analyze CRVS performance dynamics. SEM posits that behavioral outcomes and institutional efficacy are shaped by dynamic interactions across five nested hierarchical levels:

1) *Individual Level:* Knowledge, literacy, socio-economic status, personal beliefs regarding registration utility.
2) *Interpersonal Level:* Family networks, peer influences, traditional practices, and household decision-making norms.
3) *Community Level:* Local leadership engagement, social organization, transport accessibility, and cultural belief systems.
4) *Organizational Level:* Capacity of *kebele* administration, logistics, registrar training, equipment availability, and facility infrastructure.
5) *Policy/Enabling Environment:* National legal frameworks (Proclamation No. 760/2012; 1049/2017), regional resource allocations, inter-agency operational guidelines, and political commitment.

3. Research Methodology

3.1. Description of the Study Area

The study was conducted in *Gedeo Zone*, situated in SNNPR, Ethiopia. Geographically located between 5∘ 50′ to 6∘ 12′ N latitude and 38∘ 12′ to 38∘ 13′ E longitude, the zone spans 1,347 km2 across elevations ranging from 1,200 to 3,200 meters above sea level.

To capture comparative urban-rural dynamics, two distinct study sites were targeted:

1) *Dilla City Administration:* The principal urban administrative center of Gedeo Zone, situated 362 km south of Addis Ababa and 92 km from Hawassa. It comprises 5 urban *kebeles* with a projected urban population of approximately 119,502 residents.
2) *Wonago Woreda:* A densely populated rural woreda bordering Dilla City, comprising 16 rural *kebeles* and 3 semi-urban sub-centers, with a total population of 164,512. Wonago is dominated by agro-forestry agrarian socio-economic activities.

3.2. Research Design

A qualitative research design was utilized to generate deep, contextualized insights into the socio-institutional mechanisms influencing civil registration [3]. Qualitative methods permit nuanced examination of lived experiences, bureaucratic behaviors, cultural taboos, and systemic operational friction.

3.3. Target Population

The target population comprised:

1) *Community Members:* Adult men and women (≥18 years) who had experienced or undergone a vital event (birth, death, marriage, or divorce) since August 2016.
2) *Institutional Key Informants:* Zonal and woreda/city CRVS office heads, municipal experts, civil status officers (*Kebele Registrars*), Health Extension Workers (HEWs), local administrators, traditional elders, and religious leaders.

3.4. Sampling Techniques and Sample Size

A multi-stage non-probability purposive sampling approach was implemented:

1) *Site Selection:* Dilla City Administration and Wonago

Woreda were purposively selected to represent contrasting urban and rural socio-demographic contexts within Gedeo Zone.

2) *Participant Selection:* Key informants and FGD participants were recruited based on expert knowledge, administrative role, or lived experience with CRVS.
3) *Sample Size Determination:* Guided by qualitative *data saturation theory*, field recruitment continued until additional interviews yielded no novel themes or insights.

The total qualitative sample comprised:

1) *Key Informant Interviews (KIIs): n*=14 participants (including Zonal CRVS Head, Zonal Health Bureau representative, Dilla City CRVS experts, Wonago Woreda CRVS heads, municipal mayors, and *Kebele* administrators).
2) *Focus Group Discussions (FGDs)*: *n*=5 distinct FGD sessions, each consisting of 5 homogeneous members (*N*=25 total participants), disaggregated across civil status officers, HEWs, traditional elders, and religious leaders.

3.5. Data Collection Methods

Primary data collection was conducted using three qualitative techniques:

1) *Key Informant Interviews (KII):* Semi-structured interview guides were used with institutional experts to assess administrative capacity, regulatory bottlenecks, inter-sectoral linkage, and political prioritization.
2) *Focus Group Discussions (FGD):* Facilitated group guides were deployed to gather qualitative consensus and disaggregated perspectives on local socio-cultural norms, community awareness, procedural complexity, and trust in municipal systems.
3) *Document Review:* Systematic analysis of secondary administrative records, regional CRVS performance reports (2016–2022), federal proclamations, and zonal statistical dossiers was conducted to triangulate primary narratives.

3.6. Data Analysis and Trustworthiness

Data were processed using *Thematic Analysis:*

1) Audio recordings and field notes were transcribed verbatim and translated into English.
2) Transcripts underwent repeated reading for familiarization, followed by open coding to identify basic semantic units.
3) Codes were organized into broader themes categorized according to the Socio-Ecological Model (SEM).
4) *Trustworthiness:* Methodological rigor was maintained via source triangulation (KIIs, FGDs, document reviews), member-checking with key informants, and audit trails of raw transcripts.

3.7. Ethical Considerations

Ethical approval was granted by the Office of Research Dissemination Directorate (RDO), Dilla University. Formal clearance letters were submitted to zonal, municipal, and *kebele* administrative units. Informed verbal and written consent was secured from all participants prior to interviews. Participant anonymity was strictly maintained through alphanumeric coding, and data were stored on encrypted drives reserved solely for research purposes.

4. Results and Discussion

4.1. Status of Vital Events Registration: Urban vs. Rural Dynamics

Analysis of administrative records and key informant interviews reveals a substantial gap between functional infrastructure coverage and actual registration completeness across Gedeo Zone.

While 88.2% of designated *kebele* centers possess basic functional registration posts, active utilization remains low. Empirical estimates from Key Informants indicate that birth registration in *Dilla City Administration* stands at approximately 30%, whereas death registration is severely underreported (<10%). In rural *Wonago Woreda*, birth registration completeness drops further, estimated below 20%, with death and divorce registrations virtually negligible.

Table 1. *Status of Vital Events Registration: Urban vs. Rural Dynamics.*

Parameter / Indicator	Dilla City Administration (Urban)	Wonago Woreda (Rural)	Regional/National Context
Primary Operational System	Passive Registration	Hybrid / Developing Active System	Predominantly Passive
Estimated Birth Completeness	~30%	<20%	20.4% (National Average)
Estimated Death Completeness	Low (<10%)	Critically Low (<5%)	10.3% (National Average)
Primary Institutional Contact	Municipal *Kebele* Registrar	Health Extension Worker (HEW)	Kebele Administrative Offices

Parameter / Indicator	Dilla City Administration (Urban)	Wonago Woreda (Rural)	Regional/National Context
Major Physical Barrier	Administrative delays / Queues	Topography / Distances up to 15 km	Facility Inaccessibility
Primary Cultural Factor	Delayed administrative priority	Mourning taboos & post-natal seclusion	Normative reliance on customary laws

Key informants emphasized that urban residents in Dilla City generally seek registration reactively—primarily when prompted by formal legal requirements, such as securing school enrolment certificates, passport applications, or court property disputes. Conversely, in Wonago Woreda, agrarian households rarely encounter mandatory administrative touchpoints requiring birth or death certificates, leading to widespread non-registration.

"In the city [Dilla], people come to register a child only when school admission mandates a birth certificate, or when inheritance litigation requires proof of death. In rural kebeles of Wonago, families see no immediate practical reason to spend money and walk long distances just to get a piece of paper for a newborn." Key Informant Interview (KII), Dilla City CRVS Expert.

4.2. Impediments to Civil Registration (SEM Analysis)

4.2.1. Individual and Interpersonal Level Constraints

1) *Low Awareness and Functional Illiteracy:* In both study areas, a significant portion of community members lacks comprehensive understanding of the legal utility of CRVS certificates. Unawareness regarding legal registration windows (e.g., registering births within 90 days) results in frequent administrative fines for late registration, which further discourages compliance.
2) *Perceived Lack of Tangible Utility:* Household heads frequently view civil registration as an unnecessary, non-urgent administrative burden rather than a fundamental legal entitlement [2].
3) *Socio-Cultural Norms and Traditional Practices:* Qualitative findings from FGDs in Wonago Woreda revealed deep-seated cultural traditions surrounding maternal and infant seclusion following delivery (*confinement period*), which delays public birth reporting. Similarly, cultural taboos regarding death—where immediate burial takes precedence and open discussion of deceased family members is avoided—substantially impede formal death registration.

"Cultural mourning rituals in our communities require immediate burial within hours. Returning weeks later to a government office to document a deceased loved one is culturally uncomfortable and emotionally distressing for families."

4.2.2. Community and Physical Accessibility Level

Geographical and Financial Distances: While urban *kebeles* in Dilla City are geographically accessible, rural communities in Wonago Woreda face rugged terrain, requiring walking distances of up to 10–15 km to reach designated administrative centers. Transportation costs, combined with indirect opportunity costs (loss of agricultural working days), discourage rural households from registering events.

4.2.3. Organizational and Structural Level

1) *Inadequate Technological Infrastructure:* Both study sites rely heavily on manual, paper-based ledger books. The lack of digitized record management leads to frequent record loss, archival degradation, and cumbersome cross-verification processes. Frequent electrical power outages and unreliable internet connectivity further impede computerization in Dilla City.
2) *Human Resource Deficits and High Turnover: Kebele* civil status officers frequently perform multiple collateral administrative duties alongside CRVS tasks. Inadequate compensation and high turnover rates among registrars lead to continuous institutional memory loss and unstandardized record-keeping.

4.2.4. Policy and Enabling Environment Level

Horizontal Institutional Fragmentation: A key finding is the poor functional linkage between health facilities (hospitals and health centers) and civil registration offices. While institutional deliveries in Dilla City and Wonago Woreda are recorded in health facility registers, these records are rarely transmitted automatically to municipal *kebele* registrars. Consequently, the responsibility of manual notification falls entirely on parents, resulting in significant data leakage.

"Health centers deliver babies every day and issue birth notifications, but there is no automated linkage or legal mandate forcing them to send those files directly to the kebele civil status officer. The chain breaks immediately after discharge."

— KII, Gedeo Zone Health Department Official.

4.3. Opportunities for Optimizing CRVS Systems

Despite these systemic challenges, the qualitative field data highlight key actionable opportunities:

1) *Leveraging the Health Extension Program (HEP):* In rural Wonago Woreda, Health Extension Workers (HEWs) possess deep household-level access. Formalizing HEWs as mandatory *notifiers* for vital events can bridge the gap between rural households and civil status offices.
2) *Decentralization via Mobile Technologies:* Transitioning from paper ledger systems to handheld mobile-to-web digital applications can streamline real-time reporting, eliminating geographical barriers in rugged rural *kebeles*.
3) *Targeted Public-Awareness Campaigns:* Field evidence demonstrated that localized outreach campaigns in pilot areas yielded a *15% increase in birth registrations over a six-month period*. Leveraging traditional institutional networks—such as community *Iddirs*, religious institutions, and customary elders—can reshape public perceptions regarding the legal value of civil registration.
4) *Inter-Sectoral Legal Mandates:* Formally integrating civil registration with immunization schedules, primary school enrolment, and safety-net welfare distributions provides strong structural incentives for timely registration.

5. Conclusion and Recommendations

5.1. Conclusion

The Civil Registration and Vital Statistics system in Gedeo Zone—as evidenced across Dilla City Administration and Wonago Woreda—operates well below its intended potential. While physical infrastructure expansion has established functional centers in 88.2% of *kebeles*, structural bottlenecks persist. High rates of non-registration stem from an interplay of paper-based technical limitations, financial barriers, socio-cultural mourning and birth taboos, high registrar turnover, and fragmented inter-agency communication.

Addressing these challenges requires transitioning from a *passive registration model to an active, health-integrated, and digitized framework*. Capitalizing on local health extension networks, community social structures (*Iddirs*), and mobile technologies offers a sustainable path toward universal registration coverage in Southern Ethiopia.

5.2. Policy and Practice Recommendations

Based on the empirical findings, the following multi-level interventions are recommended:

Mandate Health-CRVS Interoperability:

1) Establish binding inter-agency protocols between the Regional Health Bureau and the Vital Events Registration Agency.
2) Legally empower Health Extension Workers (HEWs) and health facility staff as official, compensated *vital event notifiers*.

Accelerate Digitalization and Decentralized Capture:
Transition from manual ledger systems to offline-first digital and mobile registration platforms tailored for low-connectivity rural environments like Wonago Woreda.

Institutionalize Community-Anchored Advocacy:
Engage traditional elders, religious leaders, and *Iddir* administrators in continuous awareness creation to dismantle socio-cultural taboos surrounding death reporting and post-natal seclusion.

Human Resource Stabilization and Capacity Building:

1) Designate dedicated, full-time Civil Status Officers at the *kebele* level, eliminating competing administrative roles.
2) Implement standardized capacity-building programs and career development structures to mitigate personnel turnover.

Tie CRVS to Essential Public Service Delivery:
Link birth registration directly to infant routine immunization packages and primary school entry requirements, creating practical incentives for timely registration.

Abbreviations

APAI-CRVS	African Programme on Accelerated Improvement of Civil Registration and Vital Statistics
AU	African Union
CRVS	Civil Registration and Vital Statistics
FDRE	Federal Democratic Republic of Ethiopia
FGD	Focus Group Discussion
GZVERO	Gedeo Zone Vital Events Registration Office
HEP	Health Extension Program
HEW	Health Extension Worker
INVEA	Immigration, Nationality and Vital Events Agency
KII	Key Informant Interview
NGO	Non-Governmental Organization
PI	Principal Investigator
RDO	Research Dissemination Directorate
SDG	Sustainable Development Goal
SEM	Socio-Ecological Model
SNNPR	Southern Nations, Nationalities, and Peoples' Region
UNICEF	United Nations Children's Fund
UNSD	United Nations Statistical Division
WHO	World Health Organization

Author Contributions

Asebe Awol: Investigation, Methodology, Project administration, Resources, Software, Supervision, Validation, Visualization

Melkamu Gezehagn: Investigation, Methodology, Project administration, Resources

Data Availability Statement

The datasets analyzed or generated during the current study are available from the corresponding author upon reasonable request.

Conflicts of Interest

The authors declare no conflicts of interest.

References

[1] Aklilu Toma Shamenna, Ashenafi Senbeta Bedane, Anteneh Bezabih Ali, Assessing Knowledge, Attitude and Practice of Residents towards Civil Registration & Vital Statistics at Hawassa City Administration and Its Neighbourhoods, SNNPRS, Ethiopia, *International Journal of Advanced and Multidisciplinary Social Science*, Vol. 6 No. 1, 2020, pp. 13-27. https://doi.org/10.5923/j.jamss.20200601.02.

[2] Castle, S., Ortiz, E., & Setel, P. (2020). *Demand-Side Factors Related to the Registration of Births, Marriages, and Deaths*. Centre of Excellence for Civil Registration and Vital Statistics Systems, Ottawa, Canada.

[3] Creswell, J. W. (2014). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* (4th ed.). SAGE Publications.

[4] Economic Commission for Africa (ECA). (2017). *Report on the Status of Civil Registration and Vital Statistics in Africa*. Addis Ababa, Ethiopia.

[5] Federal Democratic Republic of Ethiopia (FDRE). (2012). *Registration of Vital Events and National Identity*.

[6] *Card Proclamation No. 760/2012*. Federal Negarit Gazeta, Addis Ababa.

[7] Federal Democratic Republic of Ethiopia (FDRE). (2017). *Vital Events Registration and National Identity Card Amendment Proclamation No. 1049/2017*. Federal Negarit Gazeta, Addis Ababa.

[8] Gedeo Zone Vital Events Registration Office (GZVERO). (2022). *Five-Year Vital Events Registration Performance Summary Report (2016–2021)*. Un-published administrative document, Dilla, Ethiopia.

[9] Gizaw, M. E. (2020). The status, challenges and opportunities of civil registration and vital statistics in Ethiopia: A systematic review. *International Journal of Scientific Reports*, 6(5), 200-203.

[10] Immigration, Nationality and Vital Events Agency (INVEA). (2021). *CRVS Systems Improvement Strategy and Costed Action Plan of Ethiopia: 2021/22–2025/26*. Addis Ababa, Ethiopia.

[11] Muhumad, A. A. (2019). Impediments to Civil Registration: The case of Somali Regional State in Ethiopia. Sosyal Siyaset Konferansları Dergisi, 77, 287-306. https://doi.org/10.26650/jspc.2019.77.0020

[12] Tadesse, S., & Gebreyesus, A. (2020). Status and associated factors of birth registration in selected districts of Tigray region, Ethiopia. *BMC International Health and Human Rights*, 20(1), 1-10.

[13] UNICEF. (2019). *Birth Registration for Every Child by 2030: Are We on Track?* UNICEF Division of Data, Analytics and Planning, New York.

[14] United Nations Statistical Division (UNSD). (2014). *Principles and Recommendations for a Vital Statistics System* (Revision 3). United Nations, New York.

[15] World Health Organization (WHO). (2021). *Progress Report on Covering Every Birth and Death: Improving Civil Registration and Vital Statistics*. WHO Regional Office for South-East Asia, New Delhi.