

Unqualified Medical Practice in Assam: Epidemiological Evidence, Healthcare System Gaps, and a Multi-Tiered Anti-Quackery Reform Framework

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ABSTRACT

Background:

Unqualified medical practice commonly termed 'quackery' constitutes a critical, pervasive threat to healthcare quality and patient safety in India, particularly in rural and semi-urban settings where qualified healthcare professionals remain scarce. Despite significant investments in healthcare infrastructure under the National Health Mission, substantial evidence suggests that unqualified practitioners continue to serve a disproportionate share of healthcare needs in domains characterized by specialist shortage, weak primary care capacity, and inadequate public health education. In Assam, judicial intervention through PIL No. 47/2019 before the Gauhati High Court has catalyzed anti-quackery efforts, yet systemic, institution-based frameworks for sustainable reduction remain underdeveloped.

Objective:

This study examines the extent, pattern, and clinical impact of unqualified medical practice in Assam's primary healthcare delivery system; identifies systemic healthcare gaps facilitating its perpetuation; documents clinical consequences through primary survey data from multiple domains (musculoskeletal disorders, infertility, addiction/mental health); and proposes a comprehensive, evidence-based multi-tier anti-quackery reform framework aligned with legal provisions, NMC regulations, and the One Health approach.

Methods:

A mixed-methods study was conducted in Kamrup District, Assam, combining: (i) prospective observational survey of musculoskeletal pain patients at two high-volume PHCs over three months documenting prior quackery consultation and subsequent diagnostic findings; (ii) retrospective-prospective infertility cohort study among 136 eligible couples at a semi-urban PHC with one-year follow-up; (iii) comprehensive addiction and mental health services study (n=847) across three PHCs (January–August 2025) using validated screening instruments (AUDIT, DAST-10, PHQ-9, GAD-7), community household surveys, and qualitative interviews; and (iv) secondary data analysis from IDSP mortality surveillance, Nikshay Portal, NCD screening databases, and boat clinic records. Qualitative data from discussions with PHC medical officers, Community Health Officers, and community health workers informed framework development.

Results:

Among patients with musculoskeletal pain presentations, 36% (n=182) initially consulted unqualified practitioners before seeking PHC services; of those available for follow-up (n=155), diagnoses revealed osteoarthritis of knee (25%), cervical/lumbar spondylosis, gout, seronegative arthritis, and rheumatoid arthritis conditions requiring sustained evidence-based management not available from quacks. In the infertility cohort

of 136 couples, 11% (n=15) experienced infertility; with systematic tertiary-level investigation (transvaginal sonography, hormonal panels) and evidence-based supportive treatment, 5% (n=7) achieved successful conception demonstrating that simple, accessible interventions could resolve infertility in approximately 45% of affected couples. The addiction study (n=847) revealed alarming findings: 36.8% screened positive for problematic alcohol use, 10.5% reported intravenous drug use, 76.3% had comorbid depression, and critically, 84.9% had never accessed formal services with 34.3% having consulted unqualified 'de-addiction centers' employing harmful, unproven practices including aversive conditioning and polypharmacy without medical supervision. Analysis identified four primary domains where specialist scarcity drives quackery: musculoskeletal and chronic pain, mental health and de-addiction, infertility management, and non-communicable disease management.

Conclusions:

Quackery flourishes specifically in healthcare domains characterized by specialist scarcity, inadequate primary care capacity building, weak regulatory enforcement, and insufficient community health education. A sustainable anti-quackery framework must extend beyond punitive law enforcement to encompass: systematic skill development for registered medical officers in high-demand specialties; specialized PHC-level clinics in identified domains; multi-tiered nodal officer surveillance structures; community engagement and quack rehabilitation programs; strengthened legal mechanisms with proportionate graduated enforcement; and robust data systems for surveillance and evaluation. The success of Assam's snakebite mortality reduction program achieving >90% mortality reduction through systematic physician training provides compelling proof of concept that skill development-driven healthcare system strengthening can dramatically improve outcomes and eliminate the niche that unqualified practitioners currently exploit.

KEYWORDS: *Quackery; Unqualified medical practice; Anti-quackery framework; Primary healthcare gaps; Skill development; Musculoskeletal disorders; Addiction medicine; Infertility; Assam; NMC compliance; One Health approach; Healthcare delivery; Gauhati High Court PIL*

1. INTRODUCTION

1.1 The Global and Indian Context of Unqualified Medical Practice

Unqualified medical practice; the provision of healthcare services by individuals lacking legally required medical qualifications and registration represents one of the most consequential yet consistently underappreciated threats to healthcare quality and patient safety in low- and middle-income countries (LMICs).¹ Unlike errors by qualified practitioners which occur within systems of accountability, documentation, and quality improvement; quackery operates entirely outside regulatory frameworks, with no professional accountability, no adverse event reporting, no quality monitoring, and no legal obligation to refer patients to qualified care when treatment exceeds competency.

In India, the scale of unqualified practice is staggering. Studies across multiple states have documented that unqualified practitioners variously called 'quacks', 'village doctors', 'RMP practitioners' (Rural Medical Practitioners, a non-legally recognized category), and by traditional titles constitute 40–80% of healthcare providers in rural areas, provide 30–50% of outpatient consultations in rural communities, and are the first point of contact for acute illnesses, chronic disease management, and reproductive health concerns for hundreds of millions of Indians.^{2,3} The paradox is profound: the practitioners with no medical training bear the healthcare burden of those with least access to qualified care; the poor, the rural, the marginalized.

The harms from unqualified practice are both direct (delayed diagnosis, inappropriate treatment, adverse effects from unmonitored medications including corticosteroids, aminoglycosides, and injectable antipyretics) and indirect (patient delay to qualified care during time-critical conditions, false reassurance, out-of-pocket expenditure with no therapeutic benefit).⁴ Several documented patterns are particularly alarming: indiscriminate antibiotic use contributing to antimicrobial resistance; steroid injections providing temporary relief for musculoskeletal pain while masking underlying pathology and causing Cushingoid side effects; unmonitored insulin administration causing hypoglycemic emergencies; and de-addiction services employing harmful aversive conditioning and unsupervised benzodiazepine prescription.

1.2 Healthcare Delivery Architecture in Assam

Assam's healthcare delivery system follows the national three-tier architecture established under the National Health Mission: Sub-Centers (Arogya Mandirs) serving populations of 3,000–5,000, each led by a Community

Health Officer (CHO); Primary Health Centers (PHCs) serving 20,000–30,000 with at least one medical officer; Community Health Centers (CHCs) serving 80,000–120,000 with specialist physicians in medicine, surgery, obstetrics/gynecology, and pediatrics; Model Hospitals; District Hospitals; and Medical College/tertiary care institutions.⁵

Despite this comprehensive structural framework, several systemic realities create conditions in which unqualified practitioners not only survive but thrive: (i) critical specialist workforce shortages, with approximately one psychiatrist per 300,000–500,000 population in rural Assam, one orthopedic surgeon per 200,000–400,000, one obstetrician per 50,000–100,000, and one dermatologist per 400,000+; (ii) geographic barriers to specialist care, with hill districts, char (river island) areas, and forest fringe communities requiring travel of 2–8 hours to reach CHC-level specialist services; (iii) cost barriers; even nominally free government services require transport, food, and opportunity cost expenditures that are prohibitive for the poorest families; (iv) cultural and linguistic barriers, particularly for tribal communities where traditional healers speak local languages and understand cultural disease concepts; and (v) long wait times and perceived poor quality of public healthcare creating demand for private alternatives, whether qualified or not.⁶

1.3 Legal Framework and Judicial Intervention

The legal framework governing medical practice in India is established primarily through the National Medical Commission Act, 2019, replacing the Indian Medical Council Act, 1956, which mandates that any person practicing modern medicine must be registered with the NMC or a State Medical Council and hold a recognized medical qualification listed in NMC schedules.⁷ Practicing medicine without such registration constitutes a cognizable offense under section 52 of the NMC Act, punishable with imprisonment and fines.

In Assam, a landmark Public Interest Litigation (PIL No. 47/2019) filed by Dr. Avijit Neog before the Gauhati High Court has served as a judicial catalyst for anti-quackery action.⁸ The Hon'ble Court directed the establishment of state-level anti-quackery mechanisms, appointed Dr. Neog as Anti-Quackery and Vigilance Officer, and mandated systematic identification and action against unqualified practitioners. Under this judicial mandate, hundreds of unqualified practitioners have been identified and actions initiated—yet this represents, as the Court itself acknowledged in its observations, merely the visible fraction of a far larger systemic problem rooted in healthcare system gaps rather than individual misconduct alone.

The limitations of purely punitive approaches are well-documented: enforcement actions without addressing the underlying demand for quackery services merely drive unqualified practice underground, potentially into less accessible settings where surveillance is even more difficult, while doing nothing to address the genuine healthcare access deficits that created the demand.⁹ Sustainable solutions require simultaneously reducing quackery demand through improved qualified healthcare access and reducing quackery supply through regulatory enforcement.

2. METHODOLOGY

2.1 Study Design

A mixed-methods study combining primary cross-sectional surveys with secondary data analysis was conducted in Kamrup District, Assam. The study employed convergent parallel design—quantitative survey data and qualitative insights were collected simultaneously and integrated in interpretation to provide a comprehensive evidence base for framework development.¹⁰

2.2 Primary Survey Components

2.2.1 Musculoskeletal Pain and Quackery Utilization Survey

A prospective observational study enrolled consecutive adult patients presenting with multiple joint or musculoskeletal pain complaints at two high-volume PHCs (selected for geographic representativeness—one peri-urban, one rural) in Kamrup District over a three-month study period (January–March 2024). Treatment-seeking behavior documentation included: prior consultations with traditional healers or unqualified practitioners, medications received (if any packages available), reported treatment effects and adverse events. Follow-up clinical evaluation at 4–6 weeks included detailed clinical examination, relevant investigations (full blood count, ESR, CRP, uric acid, rheumatoid factor, anti-CCP, X-rays as clinically indicated), and final diagnostic classification. Patients unavailable for follow-up were documented as lost.

2.2.2 Infertility Prevalence and Outcomes Cohort Study

A retrospective-prospective cohort study enrolled all eligible couples (married, sexually active, attempting conception) registered in a semi-urban PHC catchment area through ASHA worker registers. Infertility was

defined as failure to conceive after ≥ 12 months of regular unprotected sexual intercourse. Identified infertile couples were followed for one year with standardized investigation protocol (transvaginal ultrasound for folliculometry and uterine anatomy, day-2/3 FSH and AMH, post-coital test, semen analysis) performed at tertiary referral centers. Pregnancy outcomes at 12 months were documented.

2.2.3 Addiction and Mental Health Services Assessment

A comprehensive mixed-methods study conducted from January–August 2025 across three PHCs identified as serving populations with high substance use prevalence. Components included: (i) systematic screening of all adult male outpatients using AUDIT (Alcohol Use Disorders Identification Test, validated cut-off ≥ 8 for hazardous drinking), DAST-10 (Drug Abuse Screening Test), PHQ-9 (Patient Health Questionnaire-9 for depression), and GAD-7 (Generalized Anxiety Disorder scale 7); (ii) community household surveys by trained ASHA workers in PHC catchment areas to identify substance users not accessing formal healthcare; (iii) semi-structured interviews with individuals who had accessed informal de-addiction services; and (iv) focus group discussions with family members of substance users exploring barriers to formal care.

2.3 Secondary Data Analysis

Secondary data was extracted from: IDSP mortality surveillance database (Kamrup District, 2020–2024); Nikshay Portal tuberculosis surveillance data; NCD screening program databases; boat clinic records for riverine populations; and district-level healthcare infrastructure reports. These sources provided contextual evidence for healthcare utilization patterns and service delivery gaps underlying quackery demand.

2.4 Qualitative Component

In-depth interviews and informal discussions were conducted with: PHC medical officers (n=12), Community Health Officers (n=8), ASHA workers (n=20), ANMs (n=10), and community members (n=30) to understand operational constraints, patient perceptions, and local quackery dynamics. Thematic analysis following Braun and Clarke's framework was applied to qualitative data.¹¹

3. RESULTS

3.1 Musculoskeletal Pain: Quackery Utilization and Clinical Consequences

Among patients presenting with multiple pain complaints during the three-month study period, 36% (n=182/506 patients screened) reported initial consultation with traditional unqualified practitioners before seeking PHC services. This proportion exceeded expectations and was consistent across both study sites (peri-urban: 33.4%; rural: 39.1%, $p=0.08$). Of those who had consulted quacks, 30% (n=155) completed follow-up clinical evaluation; 6% (n=27) were lost to follow-up primarily due to geographic and occupational constraints.

Diagnosis	N (%)	Key Investigation	Quack Treatment Received
Osteoarthritis (Knee)	39 (25.2%)	X-ray, clinical	Inj. corticosteroid, analgesics
Lumbar Spondylosis	28 (18.1%)	X-ray lumbar spine	Inj. diclofenac, PPI
Cervical Spondylosis	22 (14.2%)	X-ray cervical	Inj. analgesic, vitamins
Gout (Hyperuricemia)	19 (12.3%)	Serum uric acid	Inj. corticosteroid, phenylbutazone
Seronegative Arthritis	14 (9.0%)	RF, anti-CCP, ESR, CRP	Inj. corticosteroid, NSAID
Fibromyalgia/Chronic Pain	14 (9.0%)	Clinical diagnosis	Multiple injections
Rheumatoid Arthritis	1 (0.6%)	Anti-CCP, RF, ESR	Inj. steroid for months
Other/Undetermined	18 (11.6%)	Various	Analgesics, injections
TOTAL	155 (100%)		

Table 1: Diagnostic distribution and quackery treatment patterns in musculoskeletal pain patients who initially consulted unqualified practitioners.

The pattern of quackery treatment was remarkably consistent: the majority received parenteral analgesics (injectable diclofenac in 78%), proton pump inhibitors (94%), corticosteroids (56%), and polyvitamin injections (65%). This treatment pattern—providing temporary symptomatic relief through steroid and NSAID injection without diagnosis—reinforces treatment-seeking from quacks through conditioning (short-term symptom relief) while causing cumulative harm through corticosteroid adverse effects (hyperglycemia, hypertension, Cushing's syndrome, avascular necrosis of femoral head, adrenal suppression), delayed disease-modifying treatment (particularly catastrophic for rheumatoid arthritis where early DMARD therapy prevents joint destruction), and NSAID-associated gastrointestinal, renal, and cardiovascular toxicity.

3.2 Infertility: Primary Care Detection and Management Outcomes

Among 136 eligible couples registered in the PHC catchment area, 15 couples (11.0%) met diagnostic criteria for infertility; a prevalence consistent with national estimates of 10–15% infertility prevalence in Indian couples.¹² Notably, none of these couples had been identified through the existing primary care system despite ASHA workers maintaining comprehensive eligible couple registers; all were identified through the research team's systematic screening protocol, demonstrating the invisible nature of infertility as a healthcare concern at primary care level.

Following systematic referral for tertiary investigations and evidence-based supportive management, 7 of 15 infertile couples (46.7% of infertile couples; 5.1% of total cohort) achieved successful conception within the 12-month follow-up period. Successful interventions included: ovulation induction with clomiphene citrate (n=4); treatment of identified hormonal dysfunction (hypothyroidism in n=2); and male factor assessment with vitamin supplementation and lifestyle modification (n=1). This finding demonstrates that simple, accessible tertiary investigations combined with affordable medical interventions can resolve infertility in nearly half of affected couples—interventions that are entirely inaccessible to the estimated majority of infertile couples in rural Assam who either never seek care or consult unqualified practitioners offering ineffective treatments including ritual interventions, nutritional supplements without evidence, and referral to unauthorized alternative practitioners.

3.3 Addiction and Mental Health Services: A Crisis of Unmet Need

The addiction and mental health assessment (n=847 adult male outpatients screened across three PHCs) revealed a healthcare crisis of substantial magnitude. AUDIT screening identified 36.8% (n=312) as screening positive for problematic alcohol use, of whom 18.4% (n=156) met criteria for probable alcohol use disorder (AUDIT score ≥ 16). DAST-10 screening identified 10.5% (n=89) reporting intravenous drug use, a particularly concerning finding given high HIV and hepatitis B/C transmission risk. PHQ-9 screening revealed depression in 62.3% of those with alcohol use disorder, with 76.3% (n=238) showing comorbid depression; consistent with global evidence that alcohol dependence and depression are mutually reinforcing conditions.

The most alarming finding was the treatment gap: 84.9% of individuals with probable substance dependence had never accessed any formal healthcare service for their substance use. Community household surveys identified 23.7% additional cases not attending PHC outpatient services. Of the 15.1% who had accessed some form of treatment, 34.3% had consulted unqualified 'de-addiction centers' operating without medical supervision. Detailed qualitative interviews with 28 individuals who had attended these informal centers documented treatment practices including: aversive conditioning methods combining electric shocks or emetic injections; unsupervised benzodiazepine prescription without withdrawal monitoring; herbal preparations of unknown composition and safety; prolonged isolation with coercive elements; and financial exploitation through guaranteed 'cure' packages costing ₹15,000–₹80,000.

Finding	n	%	Public Health Implication
AUDIT positive (hazardous drinking)	312	36.8%	Major NCD risk factor
Probable alcohol use disorder (AUDIT ≥ 16)	156	18.4%	Requires medical management
Intravenous drug use (DAST-10)	89	10.5%	HIV/Hep B/C transmission risk
Comorbid depression (PHQ-9 ≥ 10)	238	76.3% of AUD	Dual diagnosis care required
Never accessed formal services	720	84.9%	Massive treatment gap

Consulted unqualified de-addiction centers	53	34.3% of treated	Potential iatrogenic harm
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Table 2: Addiction and mental health screening results across three PHCs, Kamrup District, 2025 (n=847).

3.4 Structural Drivers of Quackery: Four Core Domains

Synthesis of primary and secondary data identifies four healthcare domains where specialist scarcity and inadequate primary care capacity consistently drive patients toward unqualified practitioners:

Domain 1 — Musculoskeletal and Chronic Pain Medicine: With estimated one orthopedic surgeon per 200,000–400,000 rural population, waits of 2–6 months for specialist consultation at district hospitals, and PHC medical officers lacking formal training in musculoskeletal examination, common conditions (osteoarthritis, spondylosis, gout, inflammatory arthritis) receive no qualified primary care assessment. Quacks fill this vacuum with injections providing temporary relief.

Domain 2 — Mental Health and Addiction Medicine: With one psychiatrist per 300,000–500,000 population in rural Assam (WHO minimum standard: one per 10,000), the mental health treatment gap exceeds 90% for most conditions. Substance use disorders are stigmatized, poorly understood, and almost entirely unaddressed by the formal primary care system despite AUDIT-detectable hazardous drinking in 36.8% of outpatients.

Domain 3 — Infertility and Reproductive Medicine: As demonstrated by the 11% infertility prevalence cohort study, infertility affects a significant proportion of couples in PHC catchment areas. Without trained obstetrician-gynecologists for basic infertility workup at primary level, couples with treatable conditions (ovulation disorders, thyroid dysfunction, mild male factor) either go undiagnosed for years or seek traditional healers and unqualified practitioners.

Domain 4 — Chronic Disease Management (NCD): Hypertension, diabetes, COPD, and their complications represent the leading causes of death in Kamrup District (as documented in the companion mortality analysis). Yet PHC medical officers receive minimal formal training in NCD management, chronic disease follow-up protocols, cardiovascular risk assessment, or medication optimization—leaving patients with uncontrolled NCDs vulnerable to quackery-based management.

4. DISCUSSION

4.1 The Quackery-Healthcare Gap Nexus: A Systems Analysis

The consistent finding across all study domains is that quackery prevalence directly mirrors healthcare system gaps: wherever the formal system fails to provide accessible, affordable, competent care in a specific domain, unqualified practitioners fill the vacuum. This has profound implications for anti-quackery strategy; punitive enforcement alone cannot sustainably eliminate quackery when the underlying healthcare demand remains unmet. A patient with uncontrolled knee pain who lives 4 hours from the nearest orthopedic surgeon will continue to seek accessible pain relief from local injectionists regardless of how many prosecution notices are issued.

The One Health framework, which recognizes the interconnectedness of human, animal, and environmental health systems and mandates collaborative multi-sectoral responses, provides an appropriate organizing principle for anti-quackery efforts.¹³ Assam's remarkable success with snakebite management—training over 2,500 physicians in snakebite assessment and antivenom administration, resulting in >90% mortality reduction, demonstrates that the One Health approach, combining systematic physician skill development, protocol standardization, community awareness, and multi-level coordination, can achieve transformative healthcare outcomes at scale.^{14,15} The same principles apply to anti-quackery: addressing the healthcare system gaps that fuel quackery demand, while simultaneously strengthening enforcement, can replicate this success across multiple domains.

4.2 Addiction and the Informal De-addiction Sector: Hidden Harm

The discovery that 34.3% of substance users who sought treatment attended unqualified de-addiction centers is a public health emergency hiding in plain sight. These centers operate entirely outside medical regulation, applying treatments that range from ineffective to actively harmful. Evidence-based addiction medicine confirms that medically supervised detoxification (benzodiazepines for alcohol withdrawal seizure prevention, buprenorphine/methadone for opioid dependence), motivational interviewing, cognitive-behavioral therapy, and peer support are the cornerstones of effective addiction treatment.^{16,17}

Aversive conditioning; whether electrical or chemical has been definitively abandoned by evidence-based addiction medicine due to: absence of efficacy in randomized trials; significant harm potential including post-traumatic stress, cardiovascular events, and psychological trauma; and violation of patient autonomy and dignity.¹⁸ Its continued use in informal Assam centers, combined with financial exploitation of vulnerable patients and families, constitutes both medical malpractice and potential criminal conduct under Indian Penal Code provisions on causing hurt and cheating.

4.3 Infertility: The Silent Primary Care Failure

The finding that 46.7% of infertile couples achieved successful conception with simple accessible interventions; yet none had been identified by the primary care system prior to research team screening exposes a systematic failure in reproductive health service delivery. ASHA workers already maintain comprehensive eligible couple registers, perform antenatal microplanning, and possess community trust; they are ideally positioned to identify couples with infertility concerns and facilitate referral. The failure is not one of community worker capacity but of physician training; PHC medical officers are not equipped with the knowledge, protocols, or equipment to conduct basic infertility assessment.

The National Health Mission supports postgraduate diploma courses in obstetrics and gynecology through Srimanta Sankaradeva University of Health Sciences, and analysis of applications revealed substantial interest from PHC medical officers in acquiring these skills; demonstrating both awareness of the gap and motivation to address it. Systematic recognition of such capacity building programs, combined with enabling PHC-level specialized infertility clinics, would bring this evidence-based benefit to hundreds of additional couples annually in Assam alone.

5. THE PROPOSED MULTI-TIER ANTI-QUACKERY REFORM FRAMEWORK

5.1 Framework Architecture: Four Pillars

The proposed framework rests on four interdependent pillars: (i) Institutional Structure: multi-tiered nodal officer system creating accountability at state, district, block, and facility levels; (ii) Capacity Building: systematic skill development for registered medical officers in high-demand specialty domains; (iii) Community Engagement: awareness campaigns, quack rehabilitation programs, and patient empowerment; and (iv) Enforcement: graduated legal response proportionate to harm, with clear inter-agency coordination mechanisms.

5.2 Institutional Structure: Nodal Officer Hierarchy

The proposed four-tier nodal officer system establishes clear accountability chains: State Nodal Officer (SNO) at state health directorate, accountable to NHM Mission Director; District Nodal Officers (DNO) at each district, ideally the CMOH or designated senior officer; Block Nodal Officers (BNO) at block PHC level; and Facility Nodal Officers (FNO) at each PHC and CHC. Each tier has defined responsibilities for surveillance, reporting, verification, and escalation. The Government of Assam has already established elements of this structure through Government Orders; the framework proposes systematization, capacity building of nodal officers, clear terms of reference, adequate budgetary allocation, and performance metrics.

5.3 Skill Development: Transforming Service Delivery

The transformative core of the proposed framework is systematic skill development for registered medical officers in four priority domains identified through this research: (i) Musculoskeletal medicine and chronic pain management including systematic examination techniques, investigation interpretation, disease-specific management protocols, and appropriate referral criteria; (ii) Brief intervention for alcohol and substance use disorders: AUDIT screening, motivational interviewing, Brief Intervention and Referral to Treatment (SBIRT), medically supervised detoxification protocols; (iii) Basic infertility assessment: ovulation monitoring, basic hormonal evaluation, transvaginal ultrasound interpretation, ovulation induction, and referral pathways; (iv) Advanced NCD management: cardiovascular risk assessment, diabetes management, COPD management, hypertension optimization.

Critically, these skill development courses must be explicitly designated as non-specialist competency enhancement: certificates should state clearly that holders have acquired additional skills for enhanced primary care delivery and do not hold specialist status in the relevant field. This designation ensures full NMC compliance while providing legitimate professional recognition, eliminating the regulatory ambiguity that currently discourages physicians from pursuing valuable training.

5.4 Quack Rehabilitation: Converting Adversaries into Allies

An innovative element of the proposed framework is a formal voluntary surrender and rehabilitation program for identified unqualified practitioners, drawing on principles of behavioral change theory and harm reduction.¹⁹ The program offers identified quacks: voluntary surrender with assurance against punitive legal action (subject to no history of serious patient harm); orientation training in medical ethics, patient safety, scope limitations, and emergency recognition; certification as Community Health Volunteers with defined roles in health promotion, disease prevention, and case-finding; and integration into existing community health structures under ASHA/CHO supervision, with appropriate nominal compensation.

This approach acknowledges that many individuals practicing as quacks in rural areas do so because legitimate income alternatives are limited, because they have community trust and social capital, and because they fill a genuine perceived need. Rather than criminalizing them in ways that may drive practice underground without addressing community need, rehabilitation converts them from healthcare hazards into assets; leveraging their community knowledge and connections for legitimate public health purposes while removing them from clinical practice.

6. RECOMMENDATIONS

Immediate Actions (0–6 months): Formalize State Anti-Quackery Cell with dedicated staff and operational budget; fully activate four-tier nodal officer system with defined terms of reference; integrate anti-quackery as standing agenda in all district health review meetings; develop standardized field verification protocols and complaint management systems.

Short-Term Initiatives (6–18 months): Launch gubernatorially notified skill development courses in four priority domains with NMC-compliant non-specialist designations; establish pilot specialized clinics (musculoskeletal pain, addiction brief intervention, infertility assessment, NCD management) at one PHC per district; launch voluntary quack surrender and rehabilitation program in pilot districts; initiate multi-channel community awareness campaigns.

Medium-Term Strategies (18 months–3 years): Scale specialized PHC clinics statewide; implement comprehensive quackery surveillance data management system; establish formal partnerships with medical colleges for training program delivery; commission statewide quackery prevalence survey to establish baseline and monitor trends.

Long-Term Transformation (3–5 years): Integrate anti-quackery objectives into all health system strengthening initiatives; establish research capacity at primary care level; create sustainable funding mechanisms for anti-quackery activities; document and disseminate best practices for national learning.

7. CONCLUSION

Quackery in Assam is not primarily a law enforcement problem; it is a healthcare system problem manifesting as a law enforcement crisis. This study provides empirical evidence from four distinct healthcare domains (musculoskeletal medicine, infertility, addiction medicine, and NCD management) that unqualified practice flourishes precisely where qualified healthcare delivery fails. The 36% quackery utilization rate for musculoskeletal pain, 11% infertility prevalence with 84.9% untreated addiction burden, are each individually alarming; together, they constitute compelling evidence of a healthcare system that has systematically failed to build primary care capacity in domains of greatest need.

The proposed multi-tier framework, grounded in evidence from Assam's own successful precedents (snakebite mortality reduction, boat clinic programs, tuberculosis elimination initiatives), provides a practical, legally compliant, and potentially transformative roadmap. The success of snakebite management; demonstrating that systematic skill development can eliminate the clinical niche exploited by traditional practitioners provides both proof of concept and inspiring precedent. With political will, administrative coordination, and modest targeted investment, Assam can achieve similar transformations across multiple healthcare domains, rendering quackery progressively both unnecessary and unsustainable.

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