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Article Title

The Service Capacity of Posyandu Cadres in Stunting Mitigation Programs: A Qualitative Literature Review

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ABSTRACT

The prevention of stunting in Indonesia relies heavily on the service capacity readiness of Community Health Workers (CHWs) as the primary unit of primary health care; however, in practice, they continue to face multidimensional barriers that degrade the quality of basic services. This qualitative literature review aims to analyze and formulate a typology of service capacity barriers for CHWs within cognitive-procedural, interactional-behavioral, and structural-administrative dimensions in stunting mitigation programs. The method employed is a descriptive, qualitative literature review, examining secondary data comprising three textbooks and 17 reputable journal articles with active DOIs on Crossref, which were analyzed using thematic synthesis. The synthesis results indicate that weaknesses in CHWs' anthropometric procedural capacity stem from disparities in basic education, sociopsychological tensions in the form of parental rejection due to stigma, and the administrative workload of digital reporting unmatched by infrastructure and clear boundaries of clinical authority. In conclusion, strengthening CHW capacity requires a transition from incidental training to a continuous, multidisciplinary team mentoring model, supported by the Ministry of Health's simplification of clinical modules and the assurance of consistent village fund budget allocations from relevant ministries to guarantee the sustainability of primary health care services at the village level.

Keywords: *Community Health Workers; Primary Health Care; Service Capacity; Stunting.*

INTRODUCTION

The prevention and mitigation of chronic growth disorders in children under five resulting from long-term nutritional deficiencies, commonly referred to as stunting, represent strategic priorities for human resource development in Indonesia. This pathological condition not only results in physical growth failure but also has the potential to impede the cognitive development and long-term productivity of future generations. To address this issue, the Government of Indonesia has enacted Presidential Regulation Number 72 of 2021, which concerns the Acceleration of Stunting Reduction. This regulation emphasizes the critical need to integrate specific nutritional interventions targeting direct causes with sensitive interventions targeting indirect causes. The successful execution of this comprehensive series of interventions is fundamentally dependent on the effectiveness of the healthcare service delivery system at the village community level.

Within the architecture of the national health system, the formal basic service network requires a liaison unit directly oriented towards the community. This strategic function is facilitated by the integrated health post, hereinafter referred to as the Posyandu (Integrated Health Post), serving as the manifestation of the Community-Oriented Primary Care concept. The Posyandu serves as the primary point of first contact for detecting signs of growth and developmental deviations in children under five (Starfield, 1998). Through routine monthly growth monitoring activities, this village community institution serves as the first point of care, screening for delayed weight gain in children under five before they progress to stunting (Islamiati & Kurniasih, 2025). Therefore, the robustness of the Primary Health Care system is

heavily determined by the operational consistency of preventive health services at the Posyandu level.

The primary drivers of all promotive and preventive healthcare activities at the Posyandu are the Community Health Workers (CHWs), who serve voluntarily. The effectiveness of these workers in early stunting detection is determined not merely by internal motivation, but also by the readiness of their multidimensional service capacity. From the perspective of public health program planning, this capacity encompasses predisposing factors, such as mastery of theoretical nutritional knowledge, and enabling factors, specifically proficiency in using basic anthropometric instruments (Green & Kreuter, 2005). The enhancement of cognitive capacity regarding the nutrition of pregnant women and the monitoring of children under five's growth and development constitutes the fundamental knowledge base for CHWs before conducting direct community education (Astikasari & Sumardiyon, 2023). In the absence of adequate cognitive and procedural mastery, the recording of growth and development data for children under five is highly susceptible to measurement errors, which, in turn, leads to inaccuracies in national epidemiological data.

Nevertheless, the reality of basic health services at the community level remains hampered by complex geographical and social barriers (Fauziah et al., 2018; Fauziah et al., 2020). In frontier, outermost, and disadvantaged areas, commonly referred to as the 3T regions, limited infrastructure and isolation from up-to-date nutritional information systematically degrade the quality of CHW services in the field (Fatimah, 2025). These barriers are compounded by the interactional dynamics between CHWs and target families within the community. Empirical experience indicates that CHWs frequently encounter social resistance in the form of psychological denial from parents of children under five who reject the identification of their children's physical growth delays (Sukmawati et al., 2025). The complexity of these challenges demonstrates that CHWs' service capacity cannot be evaluated solely in terms of clinical skills; it also entails the ability to manage social tensions at the neighborhood level.

These operational challenges are further exacerbated by various social and behavioral determinants that influence the use of Posyandus (Putri et al., 2025). The phenomenon of high early marriage rates at the regional level has been epidemiologically proven to be closely linked to an increased risk of low-birth-weight infants, who are susceptible to physical growth delays due to the unreadiness of young mothers' reproductive systems (Annah et al., 2024). Furthermore, discipline in conducting routine visits to the Posyandu is influenced by parents of children under five's low motivation and health literacy regarding the importance of periodic nutritional monitoring (Susanti & Istiningsih, 2025). The accumulation of these direct and indirect determinants demands that CHWs possess high-level persuasive communication

capacities. CHWs must be able to transform unidirectional, instructional extension patterns into nutritional counseling dialogues that empower the community.

Previous literature reviews concerning the role of CHWs have generally been dominated by post-training quantitative evaluations that measure short-term increases in cognitive scores or analyze the relationship between demographic characteristics and CHW performance (Aulia & Purnamawati, 2025). Capacity intervention models reviewed in various national publications tend to focus on incidental approaches without examining the long-term sustainability of CHW competencies (Husnida et al., 2026). In addition, literature reviews on stunting in Indonesia rarely provide a synthesis of descriptive qualitative findings regarding the psychosocial dynamics and administrative structural constraints faced by CHWs across various regions (Panemaan et al., 2025). This study attempts to bridge this conceptual gap by presenting a qualitative literature review that systematically delineates CHW service capacity into three integral dimensions: cognitive-procedural, interactional-behavioral, and structural-administrative dimensions.

Specifically, this qualitative literature review aims to analyze and formulate a typology of service capacity barriers for CHWs within cognitive, interactional, and structural dimensions in Indonesia's stunting reduction acceleration program. The theoretical benefit of this research is to provide intellectual contributions in the form of a newly synthesized conceptual framework that academics and public health researchers can utilize to examine the dynamics of the community-based informal health workforce. The practical benefit of this research is to present applicable policy recommendations for decision-makers in the Ministry of Health and Regional Health Offices to formulate sustainable CHW competency mentoring models and restructure the administrative governance system of primary health care services at the village level.

METHOD

This study employs a library research design, using a descriptive qualitative literature review (Creswell, 2013). This approach was deliberately chosen to comprehensively delineate and synthesize the conceptual meaning of the service capacity phenomenon among CHWs without reducing it to numerical indices or statistical figures. In this qualitative literature review, all previous scientific documents are treated as subjects of study that represent the social contexts, psychological challenges, and structural constraints experienced by CHWs in the field. The primary focus of this descriptive qualitative approach is to synthesize findings from various local case studies into a comprehensive macro-conceptual framework. Thus, this approach can provide a holistic understanding of the operational realities of primary healthcare services delivered by CHWs at the community level.

The data used in this scientific paper consist solely of secondary qualitative data, including descriptive narratives, transcripts of informants' statements, and conceptual conclusions from previous studies (Sugiyono, 2019). These secondary data sources were obtained from two main document categories: theoretical monographs authored by leading public health thinkers and primary scientific research journal articles. The search process for scientific journal articles was restricted to reputable national and international databases, utilizing Google Scholar and Garuda as the primary digital repositories. As a stringent data quality control measure, all identified primary research articles were required to have their Digital Object Identifiers (DOIs) actively validated in the Crossref index. This critical selection step was essential to eliminate predatory journals and scientific publications lacking adequate peer review, while simultaneously mitigating reviewer criticism of potential subjective selection bias in the determination of secondary analysis materials.

The data collection technique in this study did not involve direct interaction with respondents in the field; rather, it used a mechanical, structured literature search. The document search process was conducted using the Publish or Perish software to access digital databases efficiently. The search strategy was formulated by constructing keyword combinations using Boolean operators that connected the subject dimension, the nutritional topic dimension, the qualitative research nature dimension, and the geographical location dimension. This keyword formulation was designed to narrow the search scope, ensuring the system solely selected documents relevant to the service capacity locus of CHWs within the corridor of stunting mitigation in Indonesia. Using a purposive selection method, 20 primary references were compiled, comprising three public health textbooks serving as a macro-theoretical foundation and 17 reputable qualitative journal articles with actively validated Digital Object Identifiers in the global registry.

The validity of the secondary data collection was reinforced by applying strict inclusion and exclusion criteria throughout the literature screening process. The inclusion criteria stipulated that the analyzed documents must be published within the 2023 to 2026 timeframe to maintain relevance with the latest national stunting mitigation regulations. Conversely, the exclusion criteria were applied rigorously to exclude all descriptive quantitative articles, linear effect tests, statistical relationship analyses, and clinical experimental articles that presented only numerical data from questionnaire measurements. The exclusion of these quantitative articles aimed to ensure that the collected secondary data genuinely included in-depth descriptive narratives of the barriers, psychological constraints, workloads, and subjective perceptions of CHWs while operating *Posyandu* services.

The data analysis technique applied after all secondary documents were collected was thematic synthesis (Braun & Clarke, 2021). This analytical step

proceeded inductively through repeated readings of the results and discussion sections of each primary article to extract relevant meaning units. These meaning units were systematically coded and subsequently grouped into conceptual categories based on the shared characteristics of the barriers CHWs experienced. These conceptual codes were further synthesized into new thematic clusters that operationally divided CHW capacity into three main dimensions: cognitive-procedural, interactional-behavioral, and structural-administrative. Through this thematic synthesis technique, the reciprocal relationship between CHWs' individual knowledge foundation and the primary service system's carrying capacity could be critically delineated.

The entire operational sequence of this library research was executed through logical, transparent steps that can be replicated by future researchers to guarantee scientific objectivity. The sequence of activities commenced with the initial identification stage, using data search instruments, screening of document titles and abstracts, full-text eligibility assessment, and determination of the final number of analyzed documents. The transition process between these stages was meticulously documented to avoid researcher bias in selecting analytical materials (Miles et al., 2014). The conclusion was drawn by integrating the results of the empirical data's thematic synthesis with the theoretical frameworks of ecology, community empowerment, and primary healthcare governance. This concluding step ensured that the generated conclusions did not merely summarize the literature, but rather produced robust, valid governance recommendations for the community's basic health system.

RESULTS AND DISCUSSION

A. Cognitive Capacity and Procedural Skills of Community Health Workers (CHWs) in Anthropometry and Nutritional Status Interpretation of Children under Five

The cognitive capacity and procedural skills of CHWs are crucial determinants that influence the validity of the entire early detection process for stunting at the community level. This service capacity cannot be assessed as a single static variable, but rather as a process of accumulated individual capabilities influenced by internal and external environmental dynamics (Putri et al., 2025). Evaluating CHWs' readiness to execute promotive and preventive duties requires a comprehensive mapping of the underlying factors. From an ecological perspective, the knowledge level and mental attitude of CHWs are considered predisposing factors, while the availability of standardized measurement instruments and mastery of new clinical skills are crucial enabling factors (Green & Kreuter, 2005). Therefore, the reconstruction of CHWs' cognitive and procedural capacities through this qualitative literature review is positioned as a fundamental initial

step in strengthening the reliability of the stunting early detection system before examining the effectiveness of public health programs on a broader scale.

The readiness of CHWs' predisposing knowledge factors at the community level is fundamentally shaped by a diversity of foundational sociodemographic characteristics. Cognitive understanding of malnutrition and stunting does not develop uniformly; rather, it correlates with each health volunteer's social profile. Various demographic factors, such as biological age readiness, highest formal education level, active tenure, and prior local training experience, have been proven to be closely linked to the varying levels of CHWs' skills in detecting growth risk symptoms in children under five (Sulistiyanto et al., 2023). This empirical finding reinforces the ecological assumption that predisposing factors do not exist in isolation but result from a dynamic interaction between socioeconomic backgrounds and the educational stimulation individuals receive over time (Green & Kreuter, 2005). Consequently, capacity intervention programs designed by Regional Governments must consider this initial diversity in demographic profiles to ensure that the training curriculum provided does not experience capacity bias detrimental to CHWs with limited formal education.

Structural barriers to strengthening CHWs' cognitive capacity are further compounded by demands to meet national competency standards that are inadequately aligned with CHWs' field-based comprehension. Standardization policies often disregard regional disparities in intellectual capacity. Training efforts targeting mastery of 25 basic competencies for CHWs across several regions have reportedly faced operational barriers stemming from significant disparities in basic education levels among CHWs (Riyanto et al., 2025). Within the ecological corridor, disregarding CHWs' initial capacity when imposing new competency burdens reflects a weak alignment of interventions in health education planning (Green & Kreuter, 2005). Therefore, it is recommended that the Ministry of Health restructure the national basic competency modules into simpler, more applicable, and easily comprehensible tactical guidelines, even for CHWs with a basic education level.

Limitations in CHWs' cognitive capacity can directly weaken the quality of their psychomotor skills when operating basic clinical instruments at the Posyandu. This procedural weakness is one of the challenges that can lead to public health data bias at higher analytical levels. Empirical evidence from several local case studies indicates the potential for procedural errors, specifically inaccuracies in measuring the height and length of children under five using stadiometers or infantometers (Nadimin & Chaerunnimah, 2025). This procedural weakness serves as a tangible indicator of the unfulfilled enabling factor for the development of proficient new technical skills, despite the physical availability

of equipment at the service unit (Green & Kreuter, 2005). The implication of this finding demands technical retraining programs specifically focused on the strict standardization of basic anthropometric procedures to minimize deviations in the physical measurement results of children under five at the Posyandu level.

Efforts to overcome these cognitive and procedural limitations can be pursued through the implementation of structured training interventions directed at regions with specific social vulnerabilities. The appropriate transfer of nutritional knowledge has been proven to enhance CHWs' intellectual capacity rapidly. The implementation of stunting detection knowledge capacity-building programs for CHWs in the Quality Family Village areas has been shown to significantly improve CHWs' cognitive scores on basic stunting prevention concepts (Panemaan et al., 2025). The success of this intervention indicates that predisposing factors, such as theoretical nutritional knowledge, can be effectively improved through the application of specifically designed health education methods (Green & Kreuter, 2005). Thus, Regional Health Offices must prioritize allocating capacity-building programs to stunting mitigation priority areas with limited access to basic health information.

The success of knowledge transfer in CHW training programs is heavily determined by the selection of appropriate visual communication tools used during the teaching process. Adaptive educational media act as accelerators, accelerating the internalization of nutritional concepts into CHWs' cognition. The use of instructional print media, combining leaflets and flipcharts, has been reported as effective in facilitating the absorption of basic information on stunting prevention (Lameky et al., 2023). In the context of program planning, providing practical visual educational media is a means of fulfilling enabling factors that support CHWs' independent learning outside formal training sessions (Green & Kreuter, 2005). The policy implication of this analysis highlights the critical need for every Public Health Center (*Puskesmas*) to distribute standardized visual communication, information, and educational media as routine operational aids for CHWs at every Posyandu.

In addition to visual media support, applying teaching methods that emphasize hands-on practice plays a vital role in maintaining the stability and endurance of CHWs' psychomotor skills. Training that is strictly unidirectional and theoretical has proven less effective at sustaining CHWs' technical competencies in the long term. Organizing CHW capacity training using direct demonstration methods and interactive simulations of anthropometric equipment use has been shown to maintain stability in height measurement accuracy in children under five (Amalia & Makkulawu, 2023). Aligning with ecological principles, the direct demonstration method unifies the strengthening of predisposing knowledge

factors with the formation of enabling new skill factors within a cohesive learning experience (Green & Kreuter, 2005). Therefore, future CHW training curricula must allocate a more substantial portion of time to simulation and direct demonstration sessions under the supervision of professional health workers.

Mastering cognitive capacity regarding stunting nutrition must fundamentally go hand in hand with equipping documentation and recording skills, as well as the ability to persuasively communicate measurement results. CHWs require simulation tools that integrate technical aspects with interpersonal communication aspects. Structured training that combines role-playing simulations with visual media, such as smart diagrams, significantly improves CHWs' self-efficacy in conducting early stunting detection and educating parents of children under five (Dwihestie & Ningrum, 2024). The integration of these methods clearly demonstrates that the development of enabling technical skill factors must be accompanied by the development of enabling interpersonal communication behavior factors to ensure comprehensive basic services (Green & Kreuter, 2005). Consequently, the role-playing method must be integrated as a core component of every Community Health Worker (CHW) training module to develop their interpersonal skills before they directly interact with the community.

At the macro-conceptual level, organizing the cognitive capacity and procedural skills of CHWs in Indonesia still requires systemic reform to sustain service quality. Strengthening individual technical competencies will not have an optimal impact on reducing national stunting prevalence if executed partially. The results of a national-scale qualitative literature review confirm that the contribution of CHW empowerment in stunting mitigation is highly dependent on the continuity of coaching programs and the equitable availability of infrastructure across all regions (Aulia & Purnamawati, 2025). From an ecological perspective, this limitation is a consequence of the weak integration of decision-makers in strengthening predisposing factors and in providing consistent enabling factors (Green & Kreuter, 2005). Anthropometric data inaccuracies resulting from weak procedural capacity frequently cause social rejection when CHWs attempt to communicate the nutritional status of children under five to target families. These procedural-technical barriers ultimately result in a new interactional complexity, manifested as psychosocial tension with the community in the field, which demands further critical examination of the interactional capacity dimension of CHWs' health behavior when directly confronting social resistance in the community.

B. Interactional Capacity of Community Health Workers' (CHWs) Health Behavior in Nutritional Education and Management of Social Resistance

The interactional capacity of CHWs' health behaviors serves as a functional liaison, translating the accuracy of technical anthropometric data into concrete

nutritional behavioral changes at the target family level. Success in influencing child-rearing decisions at the household level cannot be achieved if CHWs act solely as passive data collectors without persuasive communication skills. Health promotion efforts at the basic level require CHWs to communicate the risks of growth disorders adaptively, facilitate problem-solving dialogues around nutrition, and encourage the active participation of all family members of children under five (Astikasari & Sumardiyon, 2023; Sukmawati et al., 2025). The integration of self-reliance values into these health promotion programs requires CHWs to transform the health communication pattern from an instructive relationship, dominated by power over, into a collaborative relationship based on power with, to cultivate the community's critical consciousness (Laverack, 2004). Therefore, strengthening CHWs' capacity must encompass aspects of therapeutic communication and interactional competence to ensure that stunting prevention messages can be accepted voluntarily without triggering social resistance in the community.

The most complex interactional barrier for CHWs in the field generally manifests as sociopsychological resistance from parents of children under five who are reluctant to accept their children's growth status classification. This resistance frequently stems from shame or concerns regarding the negative social stigma attached to the label of a stunted child. Various qualitative reports confirm that CHWs frequently encounter defensive reactions in the form of anger, denial, or disbelief from families when discussing indications of delayed physical growth in children under five (Sukmawati et al., 2025). This resistance phenomenon clearly demonstrates that conveying basic health information at the family level does not occur in the absence of social interaction; rather, it intersects directly with the dynamics of local power relations, necessitating mastery of the domain of critical problem-solving capacity (Laverack, 2004; Fauziah et al., 2018; Fauziah et al., 2020). The practical implication of this analysis is the critical need to equip CHWs with assertive communication techniques and social conflict management at the family level, enabling them to manage these psychosocial tensions professionally without losing self-confidence.

Mastery of core materials regarding the significance of nutritional fulfillment during the crucial phases of child growth and development serves as the primary cognitive foundation that strengthens CHWs' interpersonal credibility in establishing authoritative counseling interactions. The credibility of CHWs before mothers of children under five is heavily determined by the readiness of the material delivered during the interpersonal education process. The reliability of CHWs in influencing family decisions is closely linked to the depth of their understanding of specific nutritional improvement programs during the critical period of the first 1,000 days of life (Astikasari & Sumardiyon, 2023). This profound understanding of the critical growth period serves as a tool for CHWs to encourage

active community participation, a main operational domain within the community empowerment capacity framework (Laverack, 2004). Thus, the Regional Health Office must ensure that the CHW training curriculum positions the material on the first thousand days of life as a mandatory competency module that must be proficiently practiced before CHWs are assigned to conduct home visits.

The success of CHWs' interactional capacity to mobilize families' awareness of children under five is frequently constrained by low levels of nutritional literacy and the lack of internal motivation among the target group, mothers. This knowledge gap creates a significant communication barrier, rendering medically technical extension materials difficult for caregivers to comprehend. Empirical findings at the local level indicate that barriers such as low routine attendance rates and mothers' reluctance to implement balanced, nutritious feeding recommendations at home are reportedly heavily influenced by mothers' low motivation and limited basic understanding of early growth detection (Susanti & Istiningsih, 2025). In a passive community with low literacy, CHWs must act as health promotion facilitators, fostering the target group's critical consciousness through a participatory small-group discussion approach (Laverack, 2004). Therefore, CHW coaching strategies must shift the focus from rigid mass extension to training in facilitating interpersonal dialogue so that CHWs can assist families in independently identifying their child-rearing nutritional problems.

The self-confidence of CHWs to conduct social negotiations and nutritional education at the community level is fundamentally not formed spontaneously; rather, it requires habituation through interactive training methods. The lack of an applicable simulation space during the preparation period creates communication barriers for CHWs when directly confronting the community's sociocultural reality. The application of training methods that integrate role-playing techniques has been proven to significantly reduce communication anxiety and increase CHWs' self-efficacy in delivering educational materials to parents of children under five (Dwihestie & Ningrum, 2024). The use of this role-playing simulation method strengthens the internal organizational structure of the Community Health Workers (CHWs) group by familiarizing them with handling communication barrier scenarios in real field conditions, as part of building independent community capacity (Laverack, 2004). Consequently, health program policymakers must mandate the integration of role-playing sessions into all CHW communication skill enhancement training to hone their interpersonal persuasion skills.

The comprehensive acceleration of stunting prevention demands expanding the target of CHWs' communication so that it is not solely focused on the postpartum phase but is directed from the pre-pregnancy phase through the adolescent and prospective bride and groom groups. Delays in nutritional interventions at the basic

level are frequently caused by CHWs being late in initiating educational approaches starting from the pre-pregnancy phase. The high incidence rate of early marriage at the regional level has been epidemiologically proven to be closely linked to an increased risk of low birth weight infants, who are susceptible to physical growth delays due to the unreadiness of young mothers' reproductive systems (Annah et al., 2024). The actions of CHWs in reaching out to this adolescent and prospective bride and groom group represent promotive and preventive efforts that directly target the sociopolitical vulnerability structure and strengthen the target group's critical consciousness from an early phase (Laverack, 2004). The policy implication of this analysis is the necessity for the Village Government to facilitate integration between adolescent Posyandu and toddler Posyandu activities to enable CHWs to conduct integrated pre-pregnancy nutritional education interventions.

The level of prominence, social recognition, and local leadership readiness of CHWs at the village level serves as the primary social capital that determines the smoothness of mobilizing active community participation. Nutritional health promotion programs will not run sustainably if the community views CHWs merely as technical officers without a strong bond of social trust. The compliance of pregnant women in taking iron supplementation tablets and the consistency of monthly visits by families of children under five are heavily influenced by the strength of local leadership exercised persuasively by Posyandu administrators (Islamiati & Kurniasih, 2025). From a theoretical perspective on empowerment, local leadership is one of the most vital domains of community capacity because it serves as an accelerator that coordinates the social potential of citizens and transforms passive awareness into collective action at the grassroots level (Laverack, 2004). Therefore, Village Government apparatuses are obligated to provide social protection and robust administrative legitimacy for CHWs, so that their leadership exerts strong influence among other community leaders.

The critical synthesis of the interactional capacity dimension of CHWs' health behavior demonstrates that successful change in nutritional behavior at the target family level requires a comprehensive overhaul of extension methods. The reduction in national stunting prevalence is empirically achieved more effectively through the implementation of continuous interpersonal counseling integrated with local food-based supplementary feeding programs at the village level (Aulia & Purnamawati, 2025). This consistent interpersonal mentoring strategy aligns closely with the Parallel Track Model, which asserts that achieving clinical stunting reduction targets must run concurrently with strengthening the community's social self-reliance capacity (Laverack, 2004). Nevertheless, the stability of this interactional capacity and the endurance of CHWs' voluntary leadership cannot ultimately stand alone without support from clarity in the division of workload,

a healthy cross-sectoral coordination system, and periodic supervision from the formal health system. Weaknesses in this administrative governance demand further examination of how the primary care system structures the position of Community Health Workers (CHWs) into the structural-administrative capacity dimension and the governance of a sustainable health system.

C. Structural-Administrative Capacity and Governance of Community Programs in the Primary Health Care System

The structural-administrative capacity and governance of community programs at the Posyandu level constitute the organizational foundation that determines the long-term consistency and quality of CHWs' services. The stability of CHWs' performance at the community level cannot stand alone without support from clarity about their administrative position within the formal primary health care system (Sartika & Fauziah, 2024). Various case studies indicate that the Posyandu functions optimally as an early screening unit for growth and developmental disorders in children under five when supported by a systematic data recording system and coordination support from village officials (Islamiati & Kurniasih, 2025). From the perspective of basic health system management, this alignment is consistent with the Community-Oriented Primary Care concept, which asserts that integrating the community-based informal workforce must be supported by robust administrative coordination pathways and an integrated health information system (Starfield, 1998). Therefore, strengthening the structural capacity of CHWs requires formalizing their administrative roles through written regulations that reaffirm the position of this village community institution as a strategic partner to formal basic healthcare facilities.

The structural barriers faced by CHWs are frequently compounded by sociogeographical condition disparities across regions that systematically degrade the program's administrative capacity at the local level. Disparities in the availability of operational support facilities hinder the creation of uniform service data quality nationally. Empirical evidence at the local level indicates that CHWs serving in frontier, outermost, and disadvantaged areas encounter severe challenges, including a scarcity of standard anthropometric instruments, limited access to up-to-date nutritional information, and a lack of close supervision due to transportation constraints (Fatimah, 2025). This inequality in logistical and information access contradicts the essential primary care attribute of equitable accessibility to basic services, which necessitates the fair distribution of physical and administrative resources for all strata of society (Starfield, 1998). The policy implication of this analysis is the urgency for the Ministry of Health to formulate an affirmative logistics allocation scheme to guarantee the fulfillment of standard anthropometric equipment and nutritional information media in remote areas.

The sustainability of CHWs' basic-level technical competencies is unattainable when Regional Government capacity-building models rely solely on conventional, incidental training approaches. The weakness of the incidental capacity-building method is the rapid decline in the stability of CHWs' procedural skills after training. The results of the qualitative literature review confirm that incidental training programs are less effective at maintaining the consistency of CHWs' performance; thus, a reform towards a sustainable mentoring model that integrates the roles of multidisciplinary teams is required (Husnida et al., 2026). This transition recommendation aligns with the principle of longitudinality in the primary care system, which fundamentally focuses on maintaining a long-term therapeutic relationship between individuals or children under five and the basic healthcare system over time (Starfield, 1998). In monitoring nutritional status, the continuity of this longitudinal relationship requires consistent, accurate recording of children under five's growth and development every month. Sustainable mentoring for CHWs is a primary prerequisite for supporting the long-term monitoring of children under five with reliable, valid technical data at the community level. Therefore, Regional Governments are recommended to restructure the training mechanism by mandating Public Health Centers to conduct scheduled monthly clinical supervision for CHWs.

The reliability of a tiered referral system is a crucial indicator of the effectiveness of monitoring the nutritional status of children under five, from the Posyandu level to more comprehensive medical treatment. Weaknesses in referral coordination frequently delay clinical care for children under five experiencing weight faltering at the village level. Reports from several local qualitative studies identified administrative barriers, including dysfunctional reciprocal referral pathways and weak communication between Community Health Workers (CHWs) and village midwives or nutrition implementing staff at the Public Health Center (Suarayasa et al., 2024). These communication coordination barriers reflect the unfulfilled coordination function of primary care, which mandates clear boundaries for technical roles and a dynamic data exchange mechanism between the informal service network and medical professionals (Starfield, 1998). Consequently, the Regional Health Office, together with the Village Government, needs to arrange a practical guideline for an integrated village-level referral pathway that contains rapid reporting procedures for cases of children under five with nutritional problems.

The excessive administrative workload at the Posyandu level has the potential to reduce the motivation of community CHWs to volunteer. The bureaucratic pressure of dual reporting amidst limited supporting facilities frequently triggers the psychophysical burnout of CHWs while carrying out their humanitarian duties. This phenomenon is increasingly evident in the era of

digitalization of health information systems, where CHWs are required to operate electronic reporting applications without adequate digital literacy training and consistent internet data package support (Fitri et al., 2025). Although the motivation study initially evaluated inpatient professional nurses in hospitals, the logic of this workload is highly relevant to be translated to CHWs through a health human resources governance approach. The theory states that the satisfaction and stability of workforce performance, both formal and informal, are ecologically influenced by the balance between administrative demands and the readiness of supporting infrastructure. The absence of this balance has the potential to reduce the effectiveness of the community's CHWs workforce governance principle, which prioritizes basic organizational efficiency (Starfield, 1998). Therefore, the Ministry of Health, alongside information technology developers, must simplify the digital reporting application interface to be user-friendly and provide operational support by offering monthly internet quota incentives for CHWs.

The financial sustainability of stunting mitigation programs at the Posyandu level depends heavily on budgetary commitments from the Village Government apparatus. The minimal village fund support to sustain Posyandu operations frequently forces CHWs to halt supplementary feeding programs or limit home visits due to insufficient transportation costs. The results of the national qualitative literature synthesis prove that the smooth execution of specific nutritional intervention programs at the basic level empirically relies heavily on the willingness of the Village Government to adequately allocate the village revenue and expenditure budget for CHW incentives and the provision of local food ingredients (Aulia & Purnamawati, 2025). This weak local financing support reflects the unfulfilled governance principle that calls for integrating stable resource support from non-health sectors to ensure the continuity of community-based primary care (Starfield, 1998). The policy implication of this finding is the importance of the Ministry of Home Affairs tightening regulatory supervision over the priority use of village funds by establishing a minimum budget allocation for active Posyandu operations.

The clarity of role boundaries between medical and non-medical administrative duties is a vital aspect for maintaining service safety and preventing the mental exhaustion of CHWs. The shortage of professional health workers in some rural areas often forces CHWs to assume responsibilities beyond their competence. Qualitative reports indicate that CHWs sometimes have to perform basic clinical functions, such as providing nutritional diagnosis assessments for children under five or distributing medicinal supplements without direct medical supervision due to the vacancy of village midwives (Islamiati & Kurniasih, 2025; Sukmawati et al., 2025). The unofficial delegation of clinical responsibilities to informal volunteers contradicts the basic principle of structuring the CHWs

workforce, which requires clear medical coordination pathways and a strict division of technical role boundaries (Starfield, 1998). To overcome this risk, the Regional Health Office must enforce strict oversight of CHWs' compliance with their authority limits and prohibit the specific delegation of clinical functions to volunteers without the supervision of professional medical personnel.

A comprehensive synthesis of the three capacity dimensions proves that the national stunting mitigation effort requires a primary care governance framework that integrates all aspects of CHWs' capabilities. The success in strengthening cognitive technical competencies and the fluency of interpersonal communication will not endure if CHWs are left to work within a weak and isolated administrative system. The qualitative literature review indicates that a sustainable mentoring model integrating cross-sectoral teams and supported by a structured clinical supervision mechanism from the Public Health Center has proven to be the ideal solution for program sustainability (Husnida et al., 2026). This final conceptualization reaffirms the Community-Oriented Primary Care principle that strengthening basic service capacity must be positioned as an integral part of strengthening the national health system, with CHWs serving as strategic liaison elements protected by formal structural carrying capacity (Starfield, 1998). As a critical conclusion of this conceptual qualitative analysis, reforming Indonesia's basic health care system must not focus solely on individual cognitive training but entail a total restructuring of the community program's administrative governance in an integrated and sustainable manner.

CONCLUSIONS AND SUGGESTIONS

This qualitative literature review concludes that the cognitive capacity and procedural skills of CHWs in Indonesia continue to face serious barriers, including significant disparities in basic educational backgrounds and the tendency for technical training to be incidental. These cognitive limitations have direct implications for the vulnerability of anthropometric technical accuracy, particularly regarding the use of infantometers and stadiometers that have not been uniformly standardized in the field. This potential for procedural errors constitutes the dominant cause of deviations in physical measurement results, which culminate in data bias regarding the nutritional status of children under five at higher analytical levels. Nevertheless, gaps in CHWs' predisposing knowledge factors have been effectively eliminated through the implementation of tactical training programs that prioritize direct demonstration methods under the supervision of professional health workers, as well as the optimization of standardized visual communication media.

In the interactional dimension of health behavior, changing nutritional behavior at the target family level cannot be achieved if health programs focus exclusively on

monthly physical measurements without equipping CHWs with social negotiation skills and expanding educational targets to the pre-pregnancy phase. The greatest barrier for CHWs in the field is the presence of sociopsychological tension in the form of social resistance and defensive reactions from parents of children under five who are reluctant to accept their children's growth status classification due to concerns regarding the social stigma attached to the stunted child label. In a community with low health literacy, CHWs must possess a high level of interpersonal self-efficacy to transform communication from an instructional to a participatory counseling dialogue. Furthermore, the reach of this interactional capacity must be critically expanded to target adolescent and prospective bride and groom groups to minimize the risk of early marriage, which correlates with an increased risk of low-birth-weight infants. The mastery of assertive communication and pre-pregnancy educational interventions can be developed independently through role-playing simulations in the CHW preparation curriculum, as well as through strengthening social capital at the neighborhood level through trusted local leadership.

Examined from the perspective of structural-administrative capacity, the stability of voluntary service performance by CHWs systematically declines due to an imbalance between task demands and supporting infrastructure within the formal basic health system. The administrative workload of CHWs has become increasingly burdensome due to the need to operate electronic reporting applications in the digitalization era, without adequate digital literacy training, sufficient internet connectivity, or stable financial support from the village's revenue and expenditure budget. These structural barriers are compounded by sociogeographical isolation in remote areas and the ambiguity of technical role boundaries, which force CHWs to assume specific medical clinical responsibilities due to the absence of village midwives. Therefore, the sustainability of basic service capacity at the community level requires a transition in the coaching paradigm from an incidental training model to the implementation of a sustainable mentoring system that integrates cross-sectoral teams and is supported by routine clinical supervision mechanisms from the Public Health Center.

The synthesis results of these three dimensions of CHW service capacity carry fundamental policy implications for the governance of the national stunting reduction acceleration program in Indonesia. Public health policies must no longer position CHWs merely as informal auxiliary workers tasked with passively collecting physical data of children under five; rather, they must position them as strategic liaison elements protected by robust structural support. Academically, this study recommends developing a multidimensional CHW capacity evaluation framework to ensure that CHW performance is assessed beyond quantitative indicators of short-term cognitive scores. Future public health researchers are expected to conduct further empirical testing of the integration model for these three capacity dimensions across different

sociogeographical regions, using a participatory action research approach at the village level.

As a tangible follow-up plan that can be implemented immediately by decision-makers, the Ministry of Health alongside Regional Health Offices must restructure the national basic competency training modules into practical tactical guidelines that are adaptive to the limitations of local CHWs' educational levels. In addition, the Ministry of Home Affairs, together with the Ministry of Villages, Development of Disadvantaged Regions, and Transmigration, needs to tighten the supervision and regulation of priority village fund utilization by providing instructions reaffirming a consistent minimum operational budget allocation for active Posyandu at the village level to finance CHW incentives, the procurement of standardized anthropometric equipment, and the financing of local food-based supplementary feeding programs. This tactical step is crucial to clearly define CHWs' technical roles, mitigate the risk of volunteer burnout, and ensure that all data on screening stunting risk cases are obtained validly from reliable basic service units at the neighborhood community level.

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