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Descriptive Study of Direct Survey: Demographic Profile and Public Health Status in the Working Area of the Landono Village Health Center in 2025

Studi Deskriptif Survei Langsung: Profil Demografi dan Status Kesehatan Masyarakat di Wilayah Kerja Puskesmas Kelurahan Landono Tahun 2025

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ABSTRACT

Background: Indonesia faces a dual burden of non-communicable diseases (NCDs) and infections, with the prevalence of hypertension increasing significantly in Southeast Sulawesi (39.7% in 2023). Community-based demographic and public health profiles are needed for health center intervention planning. **Objective:** To describe the demographic profile and public health status of the working area of the Landono Health Center, Kendari, in 2025 as the basis for intervention priorities. **Methods:** An observational descriptive study with a total sampling of 160 households (598 individuals) through a door-to-door survey (February-March 2025). Validated structured questionnaire (CVR=0.85; α=0.82) and frequency/percentage univariate analysis using Excel. **Results:** The majority of heads of households are married (82.5%), ethnic Tolaki (73.9%), productive age (51.7%), high school (36.8%), other occupations (68.2%). The nutritional status of toddlers was good (95.7%), complete immunization (93.6%), but home sanitation was suboptimal (>8 m²/person: 47.4%; non-permanent housing: 23.7%). highest NCDs: hypertension (36.1%), diabetes (10.9%). Priority: adolescents without reproductive health education (81.0%), complaining elderly (66.7%), low MP-breastfeeding (69%). **Conclusions:** The composition of the productive age dominates but is balanced by high risk of NCDs, poor sanitation, and education gaps. **Suggestion:** Prioritize NCD screening, improve home sanitation, adolescent reproductive health education, and optimize MP-ASI posyandu.

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ABSTRAK

Latar Belakang: Indonesia menghadapi beban ganda penyakit tidak menular (PTM) dan infeksi, dengan prevalensi hipertensi meningkat signifikan di Sulawesi Tenggara (39,7% pada 2023). Profil demografi dan kesehatan masyarakat berbasis komunitas diperlukan untuk perencanaan intervensi puskesmas. **Tujuan:** Mendeskripsikan profil demografi dan status kesehatan masyarakat wilayah kerja Puskesmas Landono, Kendari, tahun 2025 sebagai dasar prioritas intervensi. **Metode:** Studi deskriptif observasional dengan total sampling 160 rumah tangga (598 individu) melalui survei door-to-door (Februari-Maret 2025). Kuesioner terstruktur tervalidasi (CVR=0,85; α=0,82) dan analisis univariat frekuensi/persentase menggunakan Excel. **Hasil:** Kepala rumah tangga mayoritas menikah (82,5%), etnis Tolaki (73,9%), usia produktif (51,7%), SMA (36,8%), pekerjaan lain (68,2%). Status gizi balita baik (95,7%), imunisasi lengkap (93,6%), namun sanitasi rumah suboptimal (>8 m²/orang: 47,4%; rumah tidak permanen: 23,7%). PTM tertinggi: hipertensi (36,1%), diabetes (10,9%). Prioritas: remaja tanpa edukasi kesehatan reproduksi (81,0%), lansia berkeluhan (66,7%), MP-ASI rendah (69%). **Simpulan:** Komposisi usia produktif mendominasi namun diimbangi risiko PTM tinggi, sanitasi buruk, dan kesenjangan edukasi. **Saran:** Prioritaskan skrining PTM, perbaikan sanitasi rumah, edukasi kesehatan reproduksi remaja, dan optimalisasi posyandu MP-ASI.

INTRODUCTION

Indonesia is facing a double burden of diseases with the increase in non-communicable diseases (NCDs) amid still high infectious diseases. NCDs such as hypertension, diabetes, and cardiovascular disease are the main causes of morbidity and mortality in middle-income countries, including Indonesia. [1]. Indonesia is experiencing rapid technological transformation, environmental changes, and a shift in lifestyle from traditional to modern. This change resulted in an epidemiological transition where NCDs (Non-Communicable Diseases) are now the dominant diseases in the community. The pattern of the disease shifts significantly; Previous NCDs are more commonly found in the elderly population, but currently the prevalence has increased sharply in the young age group of 10-14 years with the main diseases in the form of stroke, heart disease, and diabetes mellitus [2, 3].

The 2018 Riskesdas analysis shows that the prevalence of hypertension in the elderly population ≥18 years old reaches around 34.1%, and this figure tends to increase in various regions. Another study confirms that NCD risk factors in Indonesia are influenced by sociodemographic, behavioral, and physiological characteristics, thus requiring integrated cross-sectoral interventions [4, 5]. Demographic and socioeconomic profiles are important determinants of public health status. Studies in several health centers show that the productive age group dominates the population, but is at high risk of NCDs due to unhealthy diet, low physical activity, and smoking habits. In addition, adolescents are a vulnerable group due to risky behaviors and lack of health education, especially related to risk factors for NCDs and reproductive health. If these risk factors are not controlled from a young age, the government's efforts to harness demographic data and realize a healthy generation will face major challenges [6, 7].

Household and environmental sanitation also contribute significantly to the degree of health. Research in Indonesia shows that houses with adequate sanitation facilities tend to have better health outcomes than houses with poor sanitation. An environmental health inspection study in the work area of the UPT Tembuku I Bangli Health Center found that there are still problems with ventilation, waste disposal, and house cleanliness that increase the risk of environment-based diseases [8].

In Southeast Sulawesi Province (Sulawesi), the prevalence of hypertension continues to increase significantly, from 22.5% in Riskesdas 2013 to 29.7% in 2018, and reached 39.7% in the 2023 Indonesian Health Survei higher than the national average. The health profile of health centers in South Sulawesi, such as the Pomalaa Health Center (Kolaka) and other coastal areas, shows that the population composition is dominated by the productive age (around 50–60%) with a dependence on the informal sector, similar to national findings. Access to sanitation is only 82.36% nationally in 2023 (84.6% urban vs. 79.9% rural), which correlates with the risk of diarrhea, stunting, and infectious diseases—problems that are still relevant in the Sulawesi archipelago [9, 10].

Various studies at the health center level have assessed risk factors and management of hypertension and other NCDs, but most have focused on patients who have visited health facilities or in specific programs, rather than on a comprehensive picture of demographic profiles and health status at the household level. In fact, community-based health profiles are very important for problem mapping, program prioritization, and evaluation of primary service achievements. The direct-to-home survey approach allows the identification of problems that are not always recorded in the regular reports of the health center, such as sanitation conditions, family health behaviors, and health complaints in vulnerable groups (infants, toddlers, adolescents, and the elderly) [11]

The working area of the Landono Village Health Center is one of the areas with relatively homogeneous socio-cultural characteristics, especially ethnicity and religion, but comprehensive data on demographic profiles and health status have not been systematically documented. The results of the direct survey showed that although the nutritional status and immunization of infants/toddlers were relatively good, there were still problems with home sanitation and a high proportion of hypertension cases and health complaints in the elderly. This condition indicates the need for a study that describes in detail the demographic profile, housing conditions, and distribution of public health problems in the work area as the basis for planning for health center interventions. This study aims to comprehensively describe the demographic characteristics of the population and the prevalence of public health problems in the working area of the Landono Village Health Center in 2025 through a door-to-door direct survey, in order to prepare priority recommendations for primary data-based health program interventions to strengthen health center services.

METHODS

Research Design

This study is an observational descriptive study that aims to describe the demographic profile and public health status in the working area of the Landono Village Health Center, Landono District, Kendari City in 2025 through the collection of primary data based on interviews and observations.

Research Location and Time

The research was carried out in all working areas of the Landono Village Health Center, Landono District, Kendari City, Southeast Sulawesi Province in February-March 2025.

Population and Sample

The population of this study includes all heads of families and family members living in the working area of the Landono Village Health Center, Landono District. The study used total sampling (census) because the number of heads of families is relatively small, so it is possible to collect data comprehensively. The inclusion criteria include families who have been permanently domiciled in Landono District for at least six months as well as heads of families or members who are present and willing to be interviewed. Meanwhile, the exclusion criteria include heads of families who do not occupy a house (vacant) or refuse to participate.

Research Instruments and Variables

The research data was collected through a structured questionnaire and an observation checklist compiled based on the Indonesian Health Profile (Prokes) of the Ministry of Health of the Republic of Indonesia and the 2025 Health Center Profile. The study variables included demographic characteristics (family status, gender, age, ethnicity/nation, religion, last education, and main occupation) in 160 families or 598 populations, as well as health status which included nutrition and immunization of infants and toddlers, home and sanitation conditions, general health problems, health of pregnant and breastfeeding women, and health problems of infants, toddlers, adolescents, and the elderly. The instrument was validated by three public health experts (CVR=0.85; CVI=0.90) with a Cronbach Alpha reliability of 0.82.

Data Collection Procedure

Data collection was carried out through a door-to-door survey by the research team for 14 working days in Landono Village, Landono District. The preparation stage includes coordination with the Kendari City Health Office, Landono Sub-district Head, Head of Health Center, and Head of Landono Village/Village.

The data collection process included structured interviews with heads of families and family members using questionnaires, as well as direct observation of home and sanitation conditions using checklists. Each head of family gives written and verbal consent before the interview is conducted. To ensure the accuracy of the data, 10% of the sample was re-verified by the field supervisor as part of quality control.

Data Analysis

Univariate analysis was performed using frequency and percentage tabulation with the help of Microsoft Excel 365. The percentage of family head status is calculated based on the number of 160 households, while other demographic variables use a total of 598 residents. For the health status category, the analysis was carried out based on the number of specific respondents in each category. The percentage results are presented by rounding up to one decimal.

Research Limitations

This study is a descriptive observational study so it is not intended to conclude causal relationships. Potential recall bias can occur, especially related to family health history in Landono District, because the respondents' memory period is limited to knowledge during the interview. The research methodology was prepared based on the guidelines of the Ministry of Health of the Republic of Indonesia in the "Basic Health Profile" 2025 which is used as a reference for a descriptive observational study checklist.

RESULTS

Table 1. Demographic Characteristics of the Population of the Working Area of Landono Village in 2025

Characteristics	Categories	n	%
Head of family status	Marriage	132	82,5
	Doubt	7	4,4
	Widow	20	12,5
	Singel	1	0,6
	Total KK	**160**	**100,0**
Gender	Male	305	51,0
	Women	293	49,0
	Total population	**598**	**100,0**
Age group (years)	0–<1	7	1,2
	1–5	40	6,7
	6–12	74	12,4
	13–20	126	21,1
	21–59	309	51,7
	≥60	42	7,0
	Total	**598**	**100,0**
Tribe/Nation	Stuttgart	442	73,9
	Button	3	0,5
	Confidential	18	3,0
	Javanese	94	15,7
	Bali	1	0,2
	Bugis	28	4,7
	Follow-up	5	0,8
	Sail	5	0,8
	Send	2	0,3
	Total	**598**	**100,0**
Religion	Islam	598	100,0
	Total	**598**	**100,0**
Final education	Not yet in school	59	9,9
	Not in school	9	1,5
	SD	124	20,7
	Junior High School	130	21,7
	High School	220	36,8
	D1–D3	6	1,0
	D4/S1	47	7,9
	S2/S3	3	0,5
	Total	**598**	**100,0**
Main jobs	PNS	34	5,7
	TNI/POLRI	6	1,0
	Self-employed	75	12,5
	Farmer	69	11,5
	Fisherman	1	0,2
	Merchant	5	0,8
	Others	408	68,2
	Total	**598**	**100,0**

The percentage of the status of the head of the family is calculated from a total of 160 families. The percentage of gender, age group, ethnicity/nation, religion, last education, and main occupation was calculated from the total population of 598 people. Age groups were regrouped for analysis: 0–<1 years (0–12 months), 1–5 years, 6–12 years, 13–20 years (adolescents), 21–59 years (productive age), and ≥60 years (elderly). The ethnic/national data covers 9 main ethnic groups with Tolaki dominance

(73.9%). The last education was combined with D1/D2/D3 (1.0%). "Other" occupations cover 68.2% of the population (the largest category).

Table 2. Health Status and Public Health Problems in the Landono Village Working Area in 2025

Categories	Indicator	n	%
Nutritional status of infants and toddlers (N=47)	Good	45	95,7
	Less	1	2,1
	Bad	1	2,1
	Total	**47**	**100,0**
Baseline immunization status of infants and toddlers (N=47)	Complete	44	93,6
	Incomplete	2	4,3
	Incomplete	1	2,1
	Total	**47**	**100,0**
Home and sanitation conditions (N=253)	Non-permanent homes	60	23,7
	Less ventilation	26	10,3
	Less lighting	21	8,3
	Open spade	15	5,9
	No latrines	4	1,6
	Open bin	7	2,8
	House size ratio >8 m²/person	120	47,4
	Unhealthy water sources	0	0,0
	Total	**253**	**100,0**
General health problems (N=119 cases)	Hypertension	43	36,1
	Diabetes	13	10,9
	Gastritis	10	8,4
	Gout/arthritis (gout)	10	8,4
	Bronchial asthma	9	7,6
	Hypercholesterolemia	9	7,6
	Disability	4	3,4
	Mental disorders/ODGJ	4	3,4
	Stroke	3	2,5
	Heart	3	2,5
	Sensory perception disorders	3	2,5
	Fever	2	1,7
	Typhoid	2	1,7
	Tumor	2	1,7
	Hives	1	0,8
	Sleep disorders	1	0,8
	Other (lupus, cancer, COPD, thalassemia=0)	0	0,0
	Total	**119**	**100,0**
Health of pregnant women (N=2)	Sufficient portions of meals	1	50,0
	No ANC	1	50,0
	ANC in health facilities	0	0,0
	Total	**2**	**100,0**
Breastfeeding maternal health (N=26)	Exclusive breastfeeding	13	50,0
	Sufficient portions of meals	13	50,0
	Total	**26**	**100,0**
Infant & toddler problems (N=42)	MP-ASI >6 months	29	69,0
	Immunization is not complete	3	7,1
	BB/TB is not age-appropriate	3	7,1
	Delayed development	3	7,1
	Died 1 year ago	1	2,4
	Incomplete immunization	1	2,4

	Not participating in posyandu	1	2,4
	Can't get Vit capsules. A	1	2,4
	Total	**42**	**100,0**
Adolescent problems (N=21)	Not yet educated in health care	17	81,0
	Not in school	2	9,5
	Marital status	2	9,5
	Total	**21**	**100,0**
Elderly problems (N=42)	Elderly with complaints	28	66,7
	Not participating in social activities	10	23,8
	ADL is assisted by others	2	4,8
	Do not use health facilities	2	4,8
	Total	**42**	**100,0**

Primary data was collected directly on 160 heads of households. The percentage was calculated based on total cases/N per category: nutrition & immunization (N=47 infants/toddlers), home conditions (N=253 housing units), general health problems (N=119 cases from the population), pregnant women (N=2), breastfeeding mothers (N=26), infants/toddler problems (N=42 cases), adolescents (N=21), elderly (N=42). Common health problems were sorted by highest prevalence (hypertension 36.1%; diabetes 10.9%). The condition of the house includes 7 sanitary indicators with a house area ratio of >8 m²/person as the highest prevalence (47.4%).

DISCUSSION

The proportion of married heads of families reached 82.5%, reflecting the stability of households in urban areas of Indonesia. This is consistent with BPS data which shows that 80-85% of heads of families have marital status in urban areas [12, 13]. In Indonesia's demographic structure, heads of families with married status dominate because they support the economic function of the nuclear family. The findings of the urban household survey show a similar proportion (80-85%), reflecting adaptation to urban mobility [13].

The ratio of 51% male and 49% female shows a gender balance close to 1:1, in line with the BPS 2025 for the coastal areas of South Sulawesi. This balance arises from equal access to education and employment between genders. Gender is different from the biological characteristics of males and females. The concept of gender refers to socially constructed roles, behaviors, activities, and attributes for men and women. This difference is not a problem if it is accompanied by justice between the two. However, the injustice that occurs can cause victims for both men and women. Therefore, gender equality is a human right that must be obtained so that men and women have equal opportunities to participate in every aspect of life [14, 15].

The dominance of 21-59 years old (51.7%) supports the 2025 national demographic data, this phenomenon is called the demographic dividend refers to the phenomenon of increasing economic growth caused by changes in the age structure of the population due to the transition in birth and death rates. This conventional view assumes that a stable demographic structure will increase societal productivity, as controlled birth rates reduce the proportion between the working-age population (15-65 years) and children (0-15 years) and the elderly (>65 years) [16].

Low cross-provincial migration maintains the dominance of indigenous ethnicities.The highest education in high school (36.8%) is higher than that of rural nationals (30%), typical of coastal South Sulawesi (35-40%). Low Education is caused by several factors; Economic factors are the main challenge in the education of fishermen's children due to the limited unstable family income due to the seasonal nature of fishermen's work, making it difficult to meet school, uniform, and transportation costs; This condition is exacerbated by the lack of financial support such as scholarships or subsidies, causing families to prioritize basic needs over education. In addition, accessibility and infrastructure also hinder, with long distances from residence to school and the lack of means of transportation in remote coastal areas that make children often absent, while cultural factors reinforce the priority of family labor for children (especially women for domestic roles) over formal education, as societal norms consider practical skills to be more relevant than schools [17].

Good nutritional status in infants/toddlers reached 95.7% and complete basic immunization coverage reached 93.6%, both exceeding the national target of 90% and similar to the achievement of the West Lombok Health Center (94.2%). This success is supported by an active posyandu program that increases community herd immunity [18]. The period of complementary breastfeeding (MP-ASI) aged 6-24 months is the phase with the highest nutritional needs to support optimal growth and development of children. Lack of food quantity, low diversity of food types, and insufficient frequency of feeding negatively impact children's nutritional status. In Indonesia, the prevalence of stunting and underweight in children aged 0-24 months tends to increase with age, showing the influence of malnutrition during the MP-ASI period. Major risk factors include recurrent infections, low maternal education, poor sanitation and hygiene, and limited household socioeconomic status [19, 20].

Non-permanent housing is 23.7% lower than nationally 30%, but requires SLG intervention. The BSPS program suppressed numbers, but structural poverty persisted. Uninhabitable housing and slums are serious problems for the welfare of low-income families (MBR), so community-based approaches are considered effective for the empowerment and provision of decent housing. The physical feasibility of the house is measured from four main aspects: building safety (floor structure, walls, roof), adequacy of floor area per occupant, health of residents (availability of toilets, clean water, lighting and ventilation), and residential safety. Data from the last 5 years shows that the level of eligibility for MBR houses is stagnant in the range of 20-30% of the feasible category, while the other 40-70% is in the category of less feasible to very unfeasible [21, 22].

In terms of health, the highest is hypertension. The prevalence of hypertension is 36.1%, comparable to the 2023 SKI of South Sulawesi (39.7%) and nationally 34-40%, the highest in the productive age. Then Diabetes, Diabetes 10.9% is close to the national 10.8% (Riskesdas update), related to the obesity of informal workers. High sugar consumption and lack of physical activity worsen. NCDs include seven types of diseases, namely stroke, cardiovascular disease, diabetes mellitus, cancer, hypertension, kidney disease, and asthma. All of these NCDs are confirmed and diagnosed by doctors and recorded in the patient's medical records. These seven diseases are the most common diseases in Indonesia [1, 23].

High salt and cholesterol consumption tend to trigger hypertension in coastal areas. Excessive sodium consumption causes cells to expel more fluid, so water migrates to electrolytes with higher concentrations. This increases the heart rate and blood plasma volume, which in turn raises blood pressure. In addition, a high-sodium diet can narrow blood vessels, forcing the heart to beat faster to pump extra blood through narrowed vessels [10, 24].

Coastal areas show a higher prevalence of hypertension and diabetes, including in Southeast Sulawesi, because coastal communities tend to consume foods high in sodium, cholesterol, and simple carbohydrates from salted fish, shrimp paste, and locally processed foods. Causes of diabetes include central obesity due to a high-calorie diet, lack of post-harvest physical activity of fishermen, and work stress that triggers insulin resistance. Lifestyle has a great influence on the incidence of these two diseases, especially because coastal communities consume local foods high in sugar and salt [24].

The next data is that 81% of adolescents have not been educated in accordance with the national PKPR (75-85%). The lack of youth-friendly programs hinders understanding of sexual risk. In Indonesia, adolescent reproductive health education is integrated into the curriculum of biology, PJOK, and religion, but its implementation varies between schools so that it has not reached all adolescents. The Basic Health Survey noted that only 59% of adolescent girls and 55% of boys received basic health education, with family planning (12%/11%) and HIV/AIDS (48%/46%) even lower. Interviews with students reveal that the topic of kespro is not formally taught; students are embarrassed to consider taboo, BK teachers record excessive behavior between genders, and students seek information from the internet/friends because of the lack of knowledge from school/parents [25].

Data on the elderly with various complaints are: 66.7% of the elderly, related to low access to health and health facilities. Distance and transportation limit routine checks. In Indonesia, health problems among the elderly are quite common and worrisome. This urgency is further strengthened by Indonesia's rapid demographic transition, where the proportion of the elderly has increased from 8.4% (2015) to 12.0% (2024) as life expectancy rises from 70.8 to 72.4 years. This trend of population aging is expected to increase the demand for age-appropriate mental health services. In addition, the number of elderly people registered in the National Health Insurance (JKN) program through BPJS

Kesehatan has exceeded 15 million people in 2021, indicating an increasing burden on primary services [26].

Seniors in low- and middle-income countries face disproportionate health risks due to limited access to geriatric health services, inadequate detection, social stigma, and economic vulnerability. Risk factors for elderly health problems include female gender, chronic diseases, low socioeconomic status, lack of social support, and loneliness—especially in widows or those who live alone. In this context, the burden of depression, anxiety, and dementia is expected to increase significantly [27].

The next problem is the MP-ASI problem. Various strategies have been implemented to close the nutritional gap in pregnant and lactating women that indirectly support the quality of MP-ASI, including fortification/biofortification of staple foods to increase maternal intake of iron, zinc, and vitamin A; micronutrient supplementation that has been proven effective for pregnant women; and promotion of enriched food products containing micronutrients, macronutrients, essential fatty acids, and high-quality proteins to enrich the nutritional composition of breast milk. A similar strategy is also applied to the MP-ASI feeding period (6-24 months) to meet the nutritional needs of infants and toddlers during critical phases of growth, with food diversification and selection of nutrient-rich companion foods as the main long-term approach in the MP-ASI program, although limited access and high costs are often major obstacles especially to meet iron needs despite relatively diverse diets [19, 20].

CONCLUSIONS AND SUGGESTIONS

A descriptive survey in the working area of the Landono Village Health Center in 2025 describes a stable demographic profile with a strong core family structure, the dominance of the productive age that supports the national demographic bonus, local ethnic and religious homogeneity, and the achievement of nutrition and immunization of infants under five that exceeds the national target. However, significant public health challenges were identified in the form of the dominance of the informal work sector, suboptimal home sanitation conditions with high levels of occupancy and non-permanent housing, the prevalence of major non-communicable diseases of hypertension and diabetes which is comparable to the rates of Southeast Sulawesi and nationally, high disparities in adolescent reproductive health education, dominant health complaints among the elderly, and low coverage of MP-ASI administration. reflects the double burden of diseases typical of coastal areas in urban transition that require priority interventions based on primary data to strengthen the primary health service system of health centers.

The Landono Health Center needs to prioritize non-communicable disease screening and management programs through integrated posbindu for the productive age group, renovation of uninhabitable houses through the BSPS scheme and environmental sanitation to reduce housing density, the development of Youth Posyandu based on a friendly approach with interactive reproductive health education, increasing the coverage of MP-ASI through maternal training and diversification of local food rich in nutrients, and geriatric health services move to overcome complaints and barriers to access for the elderly. Cross-sectoral integration with the Housing Public Works Office, Education Office, and BKKBN is crucial, supported by periodic monitoring through annual household surveys to evaluate program achievements and adjust strategies based on scientific evidence.

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