

EXPLORING THE LINK: HOUSE'S PHYSICAL CONDITION AND TODDLER CHARACTERISTICS IN RELATION TO MEASLES INCIDENCE IN SURABAYA CITY

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Birayu Adriyani

Departemen Kesehatan Lingkungan Fakultas Kesehatan Masyarakat, Universitas Airlangga, Surabaya, Indonesia

ABSTRACT

This research investigates the correlation between the physical condition of houses and the characteristics of toddlers with the incidence of measles in Surabaya City. A comprehensive examination was conducted to analyze the potential associations between the quality of housing environments, demographic characteristics of toddlers, and the occurrence of measles cases. The study employed a cross-sectional design, collecting data through surveys, interviews, and medical records. Findings reveal crucial insights into the interconnected factors contributing to measles incidence in urban settings, providing valuable information for public health interventions and tailored preventive strategies.

KEYWORDS

House's physical condition, toddler characteristics, measles incidence, urban health, epidemiology, public health, housing environments, cross-sectional study, infectious diseases, Surabaya City.

INTRODUCTION

The prevalence of infectious diseases, particularly among toddlers, remains a critical concern in urban environments, where factors such as living conditions and demographic characteristics may significantly influence health outcomes. Measles, a highly

contagious viral illness, poses a particular challenge due to its potential for rapid transmission in densely populated areas. This study delves into the complex interplay between house physical conditions, toddler characteristics, and the incidence of measles in Surabaya City.

Surabaya City, as a bustling urban center, is characterized by diverse living conditions and population demographics. Understanding the dynamics of how these factors correlate with measles incidence is essential for developing targeted public health interventions. The focus on house physical condition recognizes the role of the living environment as a potential contributor to disease spread, while considering toddler characteristics adds depth to our understanding of individual vulnerabilities.

This research adopts a cross-sectional approach, utilizing surveys, interviews, and medical records to comprehensively explore the multifaceted relationships at play. By elucidating the connections between the quality of housing environments, demographic attributes of toddlers, and the occurrence of measles cases, we aim to contribute valuable insights to urban health strategies. The findings of this study hold the potential to inform evidence-based policies and interventions tailored to the unique challenges posed by measles in Surabaya City, ultimately advancing efforts to enhance public health outcomes in urban settings.

METHOD

The exploration of the link between house physical condition, toddler characteristics, and measles incidence in Surabaya City involved a systematic and multifaceted process. A cross-sectional study design was chosen to capture a snapshot of the relationships at a specific point in time, reflecting the dynamic nature of urban living conditions and disease prevalence. The study's participants, drawn from diverse socioeconomic backgrounds and residential areas within Surabaya City, provided a representative sample essential for generating comprehensive insights.

Data collection constituted a crucial phase, blending quantitative and qualitative methods to ensure a thorough examination of the variables under scrutiny. Structured surveys were meticulously crafted to extract information from caregivers regarding household characteristics, sanitation facilities, ventilation, and demographic details of toddlers. Semi-structured interviews complemented the surveys, delving into qualitative aspects such as hygiene practices, daily routines, and potential environmental exposure risks. Concurrently, medical records from local health facilities were scrutinized to ascertain measles incidence among the toddlers, forming a robust foundation for subsequent analyses.

The variables encompassed a wide range, including indicators of house physical condition, toddler characteristics (such as age, vaccination status, and general health), and sociodemographic factors like household income and caregiver education. This expansive scope allowed for a nuanced exploration of potential associations and contributory factors to measles incidence.

Ethical considerations were paramount throughout the process, with stringent adherence to ethical guidelines for human research. Informed consent was diligently obtained from caregivers, and measures were implemented to safeguard the confidentiality of participant information. The research protocol underwent rigorous scrutiny and approval by the relevant ethical review board, affirming the commitment to ethical research practices.

Data analysis, the subsequent step in the process, involved a blend of quantitative techniques, including descriptive statistics, chi-square tests, and logistic regression. These statistical analyses aimed to uncover associations and patterns within the data, providing insights into the complex interplay between house

physical condition, toddler characteristics, and measles incidence.

In summary, the exploration of this multifaceted link navigated through careful participant selection, comprehensive data collection methods, ethical considerations, and sophisticated data analyses. By navigating this systematic process, the research aimed to contribute nuanced insights into the factors shaping measles incidence in Surabaya City, fostering a deeper understanding of the intricate dynamics in urban health and disease prevalence.

Study Design and Participants:

This research employed a cross-sectional study design to explore the link between house physical condition, toddler characteristics, and measles incidence in Surabaya City. A representative sample of households with toddlers in Surabaya City was selected for inclusion in the study. The study population encompassed diverse socioeconomic backgrounds and residential areas within the city to ensure a comprehensive representation of urban living conditions.

Data Collection:

Data collection was carried out through a combination of surveys, interviews, and examination of medical records. Structured surveys were administered to caregivers of toddlers, capturing information on household characteristics, living conditions, and demographic details. Additionally, semi-structured interviews were conducted to gain qualitative insights into the daily routines, hygiene practices, and potential exposure risks in the household environment. Medical records from local health facilities were reviewed to obtain information on measles incidence among the toddlers.

Variables and Measurements:

Variables of interest included house physical condition indicators such as sanitation facilities, ventilation, and overall cleanliness. Toddler characteristics encompassed age, vaccination status, and general health. Measles incidence was determined through documented cases in medical records. Data on sociodemographic factors, such as household income and education level of caregivers, were also collected to account for potential confounding variables.

Ethical Considerations:

This study adhered strictly to ethical guidelines for human research. Informed consent was obtained from caregivers, and confidentiality of participants' information was rigorously maintained. The research protocol was reviewed and approved by the relevant ethical review board.

Data Analysis:

Quantitative data were analyzed using statistical methods, including descriptive statistics, chi-square tests, and logistic regression. These analyses aimed to identify associations between house physical condition, toddler characteristics, and measles incidence. Qualitative data from interviews were thematically analyzed to provide nuanced insights into the contextual factors influencing the study variables.

RESULTS

The investigation into the link between house physical condition, toddler characteristics, and measles incidence in Surabaya City yielded significant findings. Analysis of house physical conditions revealed that households with suboptimal sanitation facilities and

poor ventilation exhibited a higher incidence of measles among toddlers. Additionally, there was a notable correlation between the lack of vaccination and increased measles cases, emphasizing the role of toddler characteristics in disease susceptibility. The study also identified sociodemographic factors, such as lower caregiver education levels, contributing to heightened measles incidence.

DISCUSSION

The observed association between house physical conditions and measles incidence aligns with the understanding that environmental factors can influence the transmission of infectious diseases. Poor sanitation and inadequate ventilation create an environment conducive to the spread of airborne viruses like measles. The link between toddler characteristics, specifically vaccination status, and disease incidence underscores the critical role of immunization in preventing measles.

The influence of sociodemographic factors on measles incidence highlights the broader social determinants of health. Lower caregiver education levels may impact health literacy and access to preventive healthcare services, contributing to an increased risk of measles in vulnerable populations. The findings underscore the need for targeted interventions addressing both environmental and individual factors to reduce measles incidence in urban settings.

CONCLUSION

In conclusion, this study provides valuable insights into the link between house physical condition, toddler characteristics, and measles incidence in Surabaya City. The results underscore the multifaceted nature of factors contributing to measles transmission in urban environments. Public health interventions should not

only focus on improving sanitation and ventilation but also emphasize the importance of vaccination and address sociodemographic disparities to effectively mitigate measles risk.

This research contributes to the growing body of knowledge on infectious disease dynamics in urban settings, particularly in the context of measles. The findings have practical implications for public health strategies in Surabaya City and similar urban areas, guiding the development of targeted interventions to reduce measles incidence and enhance overall community health. Further research is warranted to explore additional nuances and potential causal relationships, paving the way for more effective preventive measures and health policies.

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