

**Aspirin Use for Secondary Cardiovascular Disease Prevention in Jamaica: Adherence and
Barriers**

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Abstract:

Introduction: Cardiovascular disease (CVD) remains a leading global health concern, representing the foremost non-communicable disease (NCD) and accounting for four of the top five causes of mortality in Jamaica. Despite the high prevalence of CVD risk factors in the Jamaican population, the use of aspirin for secondary cardiovascular prevention is notably suboptimal. Aspirin, as a first-line antiplatelet agent, is critical in reducing the recurrence of cardiovascular events, including myocardial infarction and stroke. However, adherence to aspirin therapy is often hindered by barriers such as limited healthcare access, financial constraints, and insufficient patient education—challenges that are particularly pronounced in Jamaica. Understanding the underlying reasons for non-adherence to aspirin therapy is essential for informing interventions that could enhance adherence rates and reduce cardiovascular-related morbidity and mortality in alignment with global health targets, such as the United Nations Sustainable Development Goals.

Purpose: The primary purpose of this study is to identify the factors contributing to suboptimal adherence to aspirin therapy for secondary cardiovascular prevention in Jamaica. By understanding the barriers faced by patients, this research aims to inform the development of targeted interventions that can improve aspirin adherence and reduce the incidence of recurrent cardiovascular events in the Jamaican population.

Methods: This study is a prospective, multicenter, observational analysis of aspirin use for secondary cardiovascular prevention in rural Jamaica. A survey was developed over a three-week period, designed to capture data on demographics, cardiovascular disease diagnoses, medication usage, and barriers to obtaining aspirin. Following Institutional Review Board (IRB) approval, the survey was administered during a four-day clinic held in Flankers and Kew Park, Jamaica. The study population included males and females aged 18 years and older, with no exclusions based on race, ethnicity, or gender. Data was collected anonymously with a target sample size of approximately 25 respondents. The collected data will be analyzed to identify key factors influencing aspirin adherence within this population, with the goal of informing targeted interventions to improve secondary cardiovascular prevention strategies.

Results: A total of 21 participants completed the survey, with 17 (81%) from Kew Park and 4 (19%) from Flankers. The majority of respondents were aged 46-60 years (52%) or over 60 years old (43%). Most participants were female (81%) and predominantly from rural areas (Kew Park, 81%). Regarding cardiovascular diagnoses, 76% of participants had at least one heart-related condition, with 57% reporting "other" conditions such as high blood pressure and stroke prevention. Aspirin was taken by 65% of respondents, primarily following a doctor's recommendation (79%). Of those taking aspirin, 50% strongly agreed that it helps, while 57% reported forgetting to take it 1-2 times per week. Among those not taking aspirin, the main reason cited was disbelief in its necessity (67%).

Discussion: This study illustrates the patterns of aspirin use for secondary cardiovascular prevention in rural Jamaica, but several limitations must be acknowledged. Variability in health literacy and the timing of the survey—conducted prior to the provision of healthcare services—

may have introduced bias in the responses. Participants may have been reluctant to report heart-related conditions due to concerns about potential implications for their access to dental care on the day of the survey. Furthermore, the small sample size of 21 limits the statistical power and generalizability of the findings. The study's context was additionally impacted by a hurricane occurring weeks prior to data collection, which disrupted power supplies and affected the advertisement of clinic services, potentially reducing patient turnout and skewing participation rates. The geographic disparity between Kew Park and Flankers indicates that local contextual factors may differentially influence adherence rates. These limitations highlight the necessity for larger-scale studies to validate these preliminary findings and to better understand the contextual factors influencing aspirin adherence.

Conclusion: This study reveals suboptimal aspirin use for secondary cardiovascular prevention in rural Jamaica, with adherence barriers linked to health literacy and environmental factors. Geographic differences between Kew Park and Flankers suggest a need for tailored, community-specific strategies. Despite the small sample size and limitations, including response bias and the impact of a recent hurricane on clinic attendance, the results offer valuable insights into adherence challenges. Addressing these barriers is crucial for improving cardiovascular health outcomes. Further research with a larger cohort is necessary to validate these findings and guide targeted public health interventions.