***Corresponding author:** Paul Andrew Bourne, Director, Socio-Medical Research Institute, 66 Long Wall Drive, Kingston 9, Kingston, Jamaica, Tel: 876-566 3088; E-mail: paulbourne1@yahoo.com, paulbourne1@gmail.com

Received

which e ectively means that rural elderly must become a focal point in any discussion on health, poverty and health care delivery. Bourne and Mc Growder's study provides some understanding of the health challenge of rural Jamaicans as it revealed that 1) most of these people have at most secondary level education (96.5%); 2) 43.8% of them received some type of social support; 3) 47.8% were poor (below poverty line, 24.4%, poor, 23.4%); 4) an alarmingly high percentage of them have no health insurance coverage, 94.1%; and 5) 17.2% reported living with an illness. e socio-economic realities of the elderly are somewhat similar to those of the general populace of Jamaica as Bourne [8] found that 1) 56% of Jamaicans received social support; 2) 66.8% resided in rural areas; 3) 63.2% had at most primary level education; 4) general wellbeing was low (3.8 out of 14), and 5) 14.7% utilized health care services. is is compounded by the general challenges of many elderly viz. 1) unemployed, 2) not seeking employment, 3) non-pensioners, 4) poor and 5) experience more ill-health conditions that those of the population. ese socio-economic disparities are distinctly seen same across Latin America and the Caribbean in the rural-urban residents and the elderly [9]. ose realities are compounded in periods of in ation, reduced national expenditure on social programmes, and increased unemployment of the working age population and increased cost of health care, thus exacerbating the vulnerability of the elderly.

Studies in Jamaica and the wider English-speaking Caribbean have established the statistical correlation between ageing and health conditions [10-15], however a dearth exists in analyzing the linkages among poverty, rural area, health and ageing. Although ageing and health is widely studied in the region [16-21], the aged people have never been investigated from a poverty-health viewpoint. e growing percentage of people living beyond 60+ in the world, including the Caribbean, denotes that rural elderly and health are critical to policy planning and formulation of programmes for this increasing cohort. e health discourse is not adequately served by merely providing empirical studies in silos on the elderly, health, ageing and health, and rural health.

A discourse on the elderly cannot be comprehensively served by singly evaluating 1) elderly, 2) ageing and health and 3) ageing and life expectancy, as when poverty is brought into the discourse many other drivers need to be analyzed and examined to expand the perspective on the ageing and health issues. e health disparities between rural and urban elderly are not the same as 'rural ageing and health' as the focus here is the rural aged and their health. e present study therefore aims to 1) evaluate health of rural elderly, 2) determine factors that in uence self-rated health status of rural aged, 3) determine factors of self-reported illness among rural aged in Jamaica, and 4) examine the changing patterns of diseases of the rural aged Jamaicans over a 5-year period.

Methods and Materials

is study utilizes secondary data analysis from a national cross-sectional survey [22]. e current study examines data from the 2002 and 2007 Jamaica Survey of Living Conditions (JSLC) [23]. e 2007 JSLC had 6,783 respondents and for 2002, there were 25, 018 respondents [22,23]. e present work extracted a sub-sample of 404 people 60+ years from the 2007 sample and 2,010 elderly from the 2002 sample. e only inclusion and exclusion criteria for the sub-sample were 1) people 60+ years and 2) resided in rural areas. e surveys (2002 and 2007 JSLC) were drawn using strati ed random sampling. (n)8(s ()-17(JS)12(L)8(a)9(n e)4(lder)4(l)7(y a)9(r)136roeys (Span

the options were very good; good; fair; poor and very poor. A binary variable was later created from this variable (1=good and very good health, 0=otherwise). It should be noted that data for self-rated health status was collected in 2007 for the rst time in the JSLC.

Private Health Insurance Coverage: is is a dummy variable, where 1 denotes self-reported ownership of private or public health insurance coverage and 0 is otherwise.

Social support (or network) denotes di erent social networks with which the individual has or is involved (1=membership of and/or visits to civic organizations or having friends who visit loved ones' home or with whom one is able to network, 0=otherwise).

Poverty: For this study, poverty is viewed from an absolute perspective. e Planning Institute of Jamaica employs an absolute approach in the measurement of poverty. Poverty is measured by way of 1) annual survey of living conditions, 2) components in food basket and a menu which is priced by the Ministry of Health and 3) pricing the items in the basket which is done by the Statistical Institute of Jamaica. e menu is based on particular nutritional requirements of a family of ve.

Social class: is variable was measured based on income quintile: e upper classes were those in the wealthy quintiles (quintiles 4 and 5); middle class was quintile 3 and poor those in lower quintiles (quintiles 1 and 2).

Health care-seeking behaviour. is variable came from the question "Has a doctor, nurse, pharmacist, midwife, healerss waddosket and7clys a021 T9d .83 7i(s)5(p)-9en(h)4(o v)-3(i)3(su)12s?8(es)4 T* [(w)-3(i)12(t)12(m t)-6(oa)19(p)1(ues)5(t)-5(io)0(t)5(s)5(lers)d .8or. ss

73.5% of the overall values were corrected classi ed (classi cation of those who reported having in an illness, 70.6%; those who indicated otherwise,75.8%).

Table 4 shows a logistic regression of self-rated health status and selected variables. Of the nine selected variables placed in this model, only three emerged as factors of self-rated health status (i.e. self-reported illness; health insurance and age) which, account for 21.9% of the variability in self-rated health status among rural elderly. Ninety-six percentage points of the sample (n=388) were used to establish this model, with the model being statistically signi cant (χ^2=63.6, P<0.0001), 74.2% of the overall values were corrected classi ed (classi cation of those who reported at leaeince ane2-9(ei e12(f)t)6(e4)3 /Span <</MCID 639 >>BDC 0.ssi cat40nt (EMC %; those w109 Tw -21(h)29(

burden faced by aged Jamaicans. e various studies on elderly in the Caribbean, particularly Jamaica, have focused on general health status, health realities, functionality and dysfunctionality of the aged [2,5,8,16-19] and these would appear su cient to address the health realities of rural aged. Although Bourne [8] found that 56 percentage points of elderly received social support, 14.7 percentage points accessed health care services, and Eldemire-Shearer [17] opined that they form the majority of hospital utilization and 80 percentage points were functionally independent, those issues are not su ciently the same as those speci cally for the rural aged. With studies establishing that two in every three elderly dwelled in rural areas [8], a closer reading of the data revealed that only 2 percent of rural Jamaicans received retirement income and 6 percent had health insurance coverage [7]. Poverty as a rural phenomenon therefore exacerbates the prevalence of ill-health of the rural elderly. e socio-economic conditions of the elderly are not the same as the conditions for the general population understanding that creates an urgency to investigate the health status of the rural aged.

Statistics from a national cross sectional survey published in the Jamaica Survey of Living Conditions (JSLC (n)3(a)-528pke Tw 32(o)16(v)8Tw T*].(t)-2 8(g oo)11-334(lder)412(n)-5(l)7(y 2 p)-9(er)13(ctional -5(l)12(t)1(s)-8(o)-9(cio-16 941 >>BDmMCID 941 >pan2)1(e)4(lde7)4(l)7(y

Since 2007, Jamaica has implemented a “no user fees” for public health care delivery. Despite the free public health care, the present research found that only 54 percent of rural elderly accessed the services compared to 49 percentage points of rural aged residents [18]. e low utilization of public health care services in Jamaica are owing to delays, poor customer services, cost of foods, and gulf between medical practitioners and clients as related to treatment, which retards coverage at these institutions. Unlike in Jamaica, 60 percent of ill people in Peru utilize public health care facilities [25], indicating that merely making public health care for the population will not result in majority utilization when there are inherent weaknesses surround the quality of care, which is outside of prescription medicine. is extends to the low usage of public health care insurance coverage for the elderly and those with chronic illnesses. e nation does not have a public health insurance scheme, but one that is geared towards the two aforementioned groups.

Clearly there is a misconception that merely providing health insurance coverage, cheaper medications and knowledge of health care issues will improve the health of people, particularly among the vulnerable. is misconception is not supported empirically as evidenced by many rural elderly who still do not have JADEP coverage, even though it is a free public health insurance coverage for senior citizens. e challenge with the JADEP coverage is its delivery and reaches to those whom need it most. According to Eldemire-Shearer [17], “In several studies, seniors have identi ed the major health care problems as the cost of medication”, which can be deduced that the JADEP can solve many of the challenges experienced by the elderly and this is clearly not the case. It is being suggested that programmes’ organizers use the skills set of social workers to intervene in the approach to serving rural communities and provide relevant services to shut-ins and other elderly. Abel-Smith [36] opined that providing a health insurance scheme requires formidable administrative tasks, which would suggest that careful planning must be the hallmark of this scheme and service must extend beyond access to coverage as well as ful lling its mandate. e JADEP programme was designed to provide health insurance coverage for seniors who were experiencing di culty in meeting health care services charge, particularly for medications. It is tempting to speculate that a country like Jamaica with 49 out of every 100 rural elderly being poor; 28 out of every 100 being below the poverty line; 45 out of every 100 reporting an illness with, 75 percent of those reporting on illness having at least one chronic condition that JADEP could have been a solpl as

poor elderly registry will be used to 1) provide medical assistance including mobile care, 2) supply health insurance, 3) supply nutrients and foods, and 4) a team should be assigned to such elderly including gerontologist, medical practitioner, nutritionist, social workers and pharmacist.

Conclusion

e reality which is uncovered by this study highlights the socio-economic challenges of rural elderly. Statistics from the World Health Organization (WHO) showed that 80% of chronic illnesses were in low and middle income countries which when translated to Jamaica read as a more rural elderly phenomenon and not for the general population. Poverty continues to erode the quality of life of rural elderly residents and economic-health costs of rural elderly could be borne by the society as well as the individual. Rural elderly is synonymous with poverty, ill-health, being female and head of household, which can be extrapolated to mean that there are premature mortalities among this cohort. Nevertheless, there is a positive outcome to residing in rural areas as longevity is greater therein. It can be concluded from the current work that merely studying elderly, life expectancy, rural residents and health status of the aged people is not the same as singly researching rural elderly and their health. e ndings provided by this inquiry o er more to the literature on elderly, health status, ageing and health and rural health studies, and increase our understanding of ageing and health research. Rural aged and their health, therefore, must be contextualized within poverty, ill-health and economic challenges, which o er a preview into the public health reality of ageing. ese ndings warrant public health interventions and measures that are critical to alleviating the economic-health care costs experienced among rural elderly.

Con ict of Interests

e authors have no con ict of interest to report at this time.

References

1. World Health Organization (2005) Preventing Chronic Diseases a vital investment. WHO, Geneva.
2. Bourne PA (2009) Impact of poverty, not seeking medical care, unemployment, inþation, self-reported illness, and health insurance on mortality in Jamaica. N Am J Med Sci 1: 99-109.
3. Bourne PA (2010) Disparities in Self-Rated Health, Health Care Utilization, Illness, Chronic Illness and Other Socioeconomic Characteristics of the Insured and the Uninsured. Journal of Clinical and Diagnostic Research 4: 2804-2816.
4. Boume PA, MxcGrowder DA (2009) Health status of patients with self-reported chronic diseases in Jamaica. N Am J Med Sci 1: 356-364.
5. Bourne PA, McGrowder DA (2009) Socio-demographic determinants of health status of elderly with self-reported diagnosed chronic medical conditions in Jamaica. Health 2: 101-111.
6. Planning Institute of Jamaica (PIOJ) & Statistical Institute of Jamaica (STATIN). Jamaica Survey of Living Conditions, 2002-2013. Kingston, Jamaica: PIOJ & STATIN.
7. Bourne PA, McGrowder DA (2009) Rural health in Jamaica: examining and reýning the predictive factors of good health status of rural residents. Rural Remote Health 9: 1116.

8Med Sci 1: 99-109.

Citation: Bourne PA, Solan I, Sharpe-Pryce C, Campbell-Smith J, Francis C (2013) The Rural Aged and their Health: A Poverty-Health Viewpoint. Epidemiol 4: 140. doi:10.4172/2161-1165.1000140

Equity and Health, Occasional Publication No. 8. Washington DC: 3-11.

35.