

Review Article

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The Morbidity Paradox Among Jamaicans Reporting No Illness: Chronic Disease, Functional Limitations, and Social Patterning in the 2023 Jamaica Survey of Living Conditions

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ABSTRACT

Background: The absence of self-reported current illness is commonly interpreted as an indicator of good health, yet this assumption may conceal chronic disease and functional limitation. **Objective:** This study examined the demographic, socioeconomic, insurance, chronic-disease and functional-health profiles of Jamaicans who reported no current illness.

Methods: A secondary cross-sectional analysis of the 2023 Jamaica Survey of Living Conditions (JSLC) was undertaken, using data supplied by the SALISES Documentation and Data Centre, The University of the West Indies, Mona, Jamaica.

Results: Among 4,251 respondents reporting no current illness, 81.1% were uninsured; 17.4% of valid functional-health respondents reported at least some difficulty; hypertension was the most frequently ever-reported chronic condition (16.5%), followed by diabetes (6.6%) and asthma (6.0%). Multivariable analysis showed that older age and being single increased the odds of functional-health difficulty, whereas secondary and post-secondary education and male sex were protective; the model was significant and well calibrated.

Conclusion: The findings indicate that absence of current illness does not equate to absence of morbidity or functional vulnerability, supporting a multidimensional approach to population-health surveillance in Jamaica.

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Received: September 03, 2026; **Accepted:** September 22, 2026; **Published:** September 30, 2026

Keywords: Jamaica; Self-Reported Illness; Functional Health; Chronic Disease; Health Insurance; Socioeconomic Status; Jslc; Health Measurement

Introduction

Self-reported illness remains an important population-health indicator because it is inexpensive, scalable and readily incorporated into household surveys [1]. Nevertheless, the construct is not synonymous with objective morbidity, functional capacity or broader health status, and its interpretation depends on recall, symptom recognition, diagnosis and cultural understandings of illness [1,2]. Jamaican research has previously shown that subjective and objective indicators can be related, still yielding important differences in the health picture produced by each measure [1]. This distinction is especially relevant for chronic non-communicable diseases, which may remain asymptomatic or be normalised by individuals for substantial periods. The Jamaica Health and Lifestyle Survey III, for example, documented appreciable differences between self-reported and measured hypertension and other cardiometabolic conditions [3]. Consequently, classifying persons as healthy solely because they report no current illness may underestimate latent morbidity and functional vulnerability.

The Jamaican context provides a particularly useful setting in which to examine this measurement problem because chronic non-communicable diseases constitute a substantial component of the national disease burden [3,4]. Recent Jamaican evidence from rural adults reported hypertension, diabetes and obesity as important population-health concerns, with age emerging as a strong determinant of hypertension and diabetes [4]. Earlier Jamaican analyses have also identified paradoxes in health reporting by sex, including lower illness reporting among males despite adverse mortality patterns [5]. Such findings indicate that illness reporting is socially patterned rather than a purely biomedical reflection of disease. International evidence similarly indicates that women tend to report poorer health and greater functional limitations than men across diverse national settings [6]. These observations raise the possibility that persons reporting no current illness may nevertheless constitute a heterogeneous population containing clinically and functionally vulnerable subgroups.

Functional health provides an important complementary perspective because it assesses what individuals can do rather than whether they identify themselves as currently ill. International research has consistently linked functional limitations with

poorer self-rated health and ageing, showing that functional status captures dimensions not reducible to diagnosed disease [7,8]. Among older adults in Ghana, functional difficulties were strongly associated with self-rated health and sociodemographic circumstances [9]. Research in the United States has further indicated that cumulative social determinants are associated with functional limitations, health-service use and general health [10]. These findings support a multidimensional conception of health in which disease, functioning, social position and healthcare access may diverge within the same individual. However, little contemporary Jamaican research has explicitly profiled functional difficulty and recognised chronic conditions within a population selected precisely because respondents reported no current illness.

The present study addresses this gap using the 2023 Jamaica Survey of Living Conditions and focuses on Jamaicans who reported no current illness. It examines demographic and socioeconomic composition, health-insurance coverage, functional health, recognised chronic conditions, cancer types and socioeconomic differences in these indicators. It additionally models the independent associations of union status, education, sex, household-head status, age and household expenditure with functional-health difficulty. The central proposition is that absence of self-reported illness should not automatically be interpreted as absence of health need. By juxtaposing illness reporting with functional and chronic-disease indicators, the study extends earlier Jamaican work on the validity and paradoxes of subjective health measurement [1,5]. The findings are intended to contribute to health-surveillance methodology, social epidemiology and policy discussions concerning hidden health vulnerability in Jamaica.

Methods

This study employed a cross-sectional secondary analysis of the 2023 Jamaica Survey of Living Conditions (JSLC). The JSLC is jointly produced by the Planning Institute of Jamaica and the Statistical Institute of Jamaica and is a major national household survey used to examine living conditions and socioeconomic welfare. For the present analysis, the underlying microdata were provided by the SALISES Documentation and Data Centre, The University of the West Indies, Mona, Jamaica. The analytical population comprised 4,251 respondents who were filtered on the criterion that they reported no current illness other than illness due to injury. Analyses describe health characteristics within a deliberately selected no-current-illness population rather than the total Jamaican population. All results should consequently be interpreted as conditional on this inclusion criterion.

Variables examined included sex, socioeconomic group, educational level, household-head status, age cohort, union status, area of residence, health-insurance status, functional health, healthcare utilisation and recognised chronic conditions. Socioeconomic status was grouped as poor (quintiles 1 and 2), middle (quintile 3) and wealthy (quintiles 4 and 5). Functional

health comprised no difficulty, some difficulty, a lot of difficulty and inability to perform the relevant activity, with a binary functional-difficulty outcome used for logistic regression. Chronic-condition variables distinguished reports within the previous 12 months, reports more than 12 months previously and no report of the condition. Conditions included asthma, diabetes, hypertension, arthritis, COPD, heart disease, sickle-cell disease, depression, dementia, other mental disorders, cancer, epilepsy, kidney disease and other illnesses. Cancer descriptions were harmonised into clinically recognisable categories for descriptive presentation.

Descriptive statistics were expressed as frequencies and percentages, using valid percentages where missing observations were present. Pearson chi-square tests assessed associations between socioeconomic group and categorical demographic, insurance, disease and functional-health variables. Cramer's V was reported to describe the magnitude of categorical associations, with smaller values indicating weaker relationships. A binary logistic regression model estimated adjusted associations with functional-health difficulty using single, visiting and common-law union status, secondary and post-secondary education, male sex, household-head status, age in years and total annual expenditure as predictors. Adjusted odds ratios, 95% confidence intervals, Wald statistics and probability values were reported; model performance was assessed using omnibus chi-square, pseudo-R² statistics, the Hosmer-Lemeshow test and classification accuracy. Statistical significance was evaluated at $p < .05$; sparse-cell findings for uncommon diseases were interpreted cautiously.

The analysis used de-identified secondary survey data and did not involve direct contact with participants. The study relied on the data-access and documentation arrangements of the SALISES Documentation and Data Centre and on variables contained in the JSLC dataset supplied for secondary analysis. No causal interpretation was assigned to associations because the design is cross-sectional. Self-reported diagnoses were treated as recognised or reported conditions and not as clinical prevalence estimates, particularly because respondents were selected for reporting no current illness. Likewise, healthcare-utilisation estimates were interpreted cautiously because only 21 respondents had valid responses to the doctor, nurse or pharmacist utilisation item in the filtered sample. These design considerations informed both the statistical interpretation and the comparison of the findings with Jamaican and international literature.

Results

Demographic, Socioeconomic and Residential Profile

The no-current-illness population was almost evenly divided by sex and was socioeconomically heterogeneous, although post-secondary education predominated among valid educational responses, single persons formed the largest union-status category, and rural residents represented the largest residential group.

Characteristic	Category	Frequency (n)	Per cent (%)
Sex	Male	2,095	49.3
	Female	2,156	50.7
	Total	4,251	100.0
Socioeconomic group	Poor (Quintiles 1 & 2)	1,706	40.1
	Middle (Quintile 3)	848	19.9
	Wealthy (Quintiles 4 & 5)	1,697	39.9
	Total	4,251	100.0
Educational level	Primary and below	198	6.1
	Secondary	664	20.6
	Post-secondary	2,366	73.3
	Valid total	3,228	100.0
Head of household	No	2,623	61.7
	Yes	1,628	38.3
	Total	4,251	100.0
Age cohort	Children: 0–14 years	884	20.8
	Youth: 15–24 years	609	14.3
	Young adults: 25–44 years	1,035	24.3
	Middle age: 45–59 years	814	19.1
	Elderly: 60–74 years	642	15.1
	Senior: 75+ years	267	6.3
	Total	4,251	100.0
Union status	Married	669	19.9
	Common-law	373	11.1
	Visiting	570	16.9
	Single	1,755	52.1
	Valid total	3,367	100.0
Area of residence	Greater Kingston Metropolitan Area	1,292	30.4
	Other urban centres	1,190	28.0
	Rural	1,769	41.6
	Total	4,251	100.0

Social Patterning by Socioeconomic Group

Socioeconomic position was significantly associated with education, household-head status, age and union status but not sex, showing that the population reporting no illness was socially stratified even before health outcomes were considered.

Characteristic	Category	Poor (Quintiles 1 & 2), n (%)	Middle (Quintile 3), n (%)	Wealthy (Quintiles 4 & 5), n (%)	Total, n (%)	χ^2 (df)	p	Cramer's V
Educational level	Primary and below	111 (9.3)	38 (6.1)	49 (3.5)	198 (6.1)	95.778 (4)	<.001	.122
	Secondary	314 (26.3)	129 (20.8)	221 (15.6)	664 (20.6)			
	Post-secondary	769 (64.4)	453 (73.1)	1,144 (80.9)	2,366 (73.3)			
	Total	1,194 (100.0)	620 (100.0)	1,414 (100.0)	3,228 (100.0)			
Head of household	No	1,208 (70.8)	565 (66.6)	850 (50.1)	2,623 (61.7)	165.442 (2)	<.001	.197
	Yes	498 (29.2)	283 (33.4)	847 (49.9)	1,628 (38.3)			
	Total	1,706 (100.0)	848 (100.0)	1,697 (100.0)	4,251 (100.0)			
Age cohort	Children: 0–14 years	456 (26.7)	193 (22.8)	235 (13.8)	884 (20.8)	156.541 (10)	<.001	.136

	Youth: 15–24 years	288 (16.9)	125 (14.7)	196 (11.5)	609 (14.3)			
	Young adults: 25–44 years	376 (22.0)	204 (24.1)	455 (26.8)	1,035 (24.3)			
	Middle age: 45–59 years	256 (15.0)	144 (17.0)	414 (24.4)	814 (19.1)			
	Elderly: 60–74 years	243 (14.2)	142 (16.7)	257 (15.1)	642 (15.1)			
	Senior: 75+ years	87 (5.1)	40 (4.7)	140 (8.2)	267 (6.3)			
	Total	1,706 (100.0)	848 (100.0)	1,697 (100.0)	4,251 (100.0)			
Sex	Male	848 (49.7)	388 (45.8)	859 (50.6)	2,095 (49.3)	5.558 (2)	.062	.036
	Female	858 (50.3)	460 (54.2)	838 (49.4)	2,156 (50.7)			
	Total	1,706 (100.0)	848 (100.0)	1,697 (100.0)	4,251 (100.0)			
Union status	Married	202 (16.2)	133 (20.3)	334 (22.8)	669 (19.9)	68.900 (6)	<.001	.101
	Common-law	163 (13.0)	88 (13.4)	122 (8.3)	373 (11.1)			
	Visiting	165 (13.2)	101 (15.4)	304 (20.8)	570 (16.9)			
	Single	720 (57.6)	333 (50.8)	702 (48.0)	1,755 (52.1)			
	Total	1,250 (100.0)	655 (100.0)	1,462 (100.0)	3,367 (100.0)			

Health Insurance, Functional Health and Healthcare Utilisation

Although every respondent reported no current illness, 81.1% were uninsured, and 17.4% of respondents with valid functional-health data reported at least some difficulty, demonstrating a marked divergence between current illness reporting and functional health.

Health characteristic	Category	n	Per cent (%)	Valid Per cent (%)
Current illness	No illness reported	4,251	100.0	100.0
Health insurance	Uninsured	3,448	81.1	81.1
	Insured	803	18.9	18.9
Functional health	No difficulty	3,319	78.1	82.6
	Some difficulty	376	8.8	9.4
	A lot of difficulty	168	4.0	4.2
	Cannot do at all	155	3.6	3.9
	Valid total	4,018	94.5	100.0
	Missing	233	5.5	—
Visited doctor, nurse or pharmacist	Yes	20	0.5	95.2
	No	1	0.0	4.8
	Valid total	21	0.5	100.0
	Missing	4,230	99.5	—

Recognised Chronic Physical Disease

Hypertension was the dominant recognised chronic physical condition despite the absence of current illness, with 16.5% ever reporting hypertension, followed by diabetes at 6.6%, asthma at 6.0% and arthritis at 4.9%.

Condition	Within last 12 months, n (%)	More than 12 months ago, n (%)	Total ever reporting condition, n (%)	No, n (%)
Asthma	47 (1.1)	207 (4.9)	254 (6.0)	3,991 (93.9)
Diabetes	43 (1.0)	236 (5.6)	279 (6.6)	3,969 (93.4)
Hypertension	111 (2.6)	589 (13.9)	700 (16.5)	3,548 (83.5)
Arthritis	47 (1.1)	161 (3.8)	208 (4.9)	4,037 (95.0)
COPD	2 (0.0)	10 (0.2)	12 (0.3)	4,235 (99.6)
Heart disease	8 (0.2)	47 (1.1)	55 (1.3)	4,194 (98.7)
Sickle-cell disease	3 (0.1)	29 (0.7)	32 (0.8)	4,217 (99.2)
Cancer	3 (0.1)	31 (0.7)	34 (0.8)	4,215 (99.2)

Epilepsy	8 (0.2)	15 (0.4)	23 (0.5)	4,228 (99.5)
Kidney disease	3 (0.1)	14 (0.3)	17 (0.4)	4,229 (99.5)

Mental, Neurological and Other Conditions

Reported mental and neurological conditions were uncommon, but their presence among respondents denying current illness further indicates that the current-illness item does not exhaustively capture recognised morbidity.

Condition	Within last 12 months, n (%)	More than 12 months ago, n (%)	Total ever reporting condition, n (%)	No, n (%)
Depression	10 (0.2)	17 (0.4)	27 (0.6)	4,221 (99.3)
Dementia	5 (0.1)	16 (0.4)	21 (0.5)	4,229 (99.5)
Other mental disorder	9 (0.2)	47 (1.1)	56 (1.3)	4,193 (98.6)
Other illness/disease	15 (0.4)	39 (0.9)	54 (1.3)	4,192 (98.6)
Epilepsy	8 (0.2)	15 (0.4)	23 (0.5)	4,228 (99.5)
Kidney disease	3 (0.1)	14 (0.3)	17 (0.4)	4,229 (99.5)

Reported Cancer Types

Among the 34 reported cancer cases, prostate cancer accounted for more than half, followed by breast cancer, indicating a strongly sex-specific cancer profile within this small subgroup.

Cancer type	Frequency (n)	Percentage of identified cancer cases (%)
Prostate cancer	19	55.9
Breast cancer	6	17.6
Colon cancer	2	5.9
Womb cancer	2	5.9
Cervical cancer	1	2.9
Lung cancer	1	2.9
Lymphoma	1	2.9
Nasopharyngeal cancer	1	2.9
Not stated	1	2.9
Total	34	100.0

Health Insurance Inequality

Health-insurance coverage displayed a clear socioeconomic gradient, with uninsured status falling from 92.1% among poor respondents to 68.8% among wealthy respondents and Cramer's V indicating the strongest bivariate socioeconomic association among the reported health indicators.

Health-insurance status	Poor, n (%)	Middle, n (%)	Wealthy, n (%)	Total, n (%)	χ^2 (df)	p	Cramer's V
Uninsured	1,571 (92.1)	710 (83.7)	1,167 (68.8)	3,448 (81.1)	306.653 (2)	<.001	.269
Insured	135 (7.9)	138 (16.3)	530 (31.2)	803 (18.9)			
Total	1,706 (100.0)	848 (100.0)	1,697 (100.0)	4,251 (100.0)			

Chronic Physical Conditions Across Socioeconomic Groups

Diabetes and hypertension differed significantly across socioeconomic groups, with longstanding disease reports more frequent among middle and wealthy respondents, whereas asthma, arthritis, COPD and heart disease showed no statistically significant socioeconomic differences.

Condition/status	Poor, n (%)	Middle, n (%)	Wealthy, n (%)	Total, n (%)	χ^2 (df)	p	Cramer's V
Asthma					8.433 (8)	.392	.031
Within last 12 months	24 (1.4)	5 (0.6)	18 (1.1)	47 (1.1)			
More than 12 months ago	92 (5.4)	45 (5.3)	70 (4.1)	207 (4.9)			
No	1,587 (93.0)	798 (94.1)	1,606 (94.6)	3,991 (93.9)			
Diabetes					15.380 (6)	.018	.043

Within last 12 months	15 (0.9)	8 (0.9)	20 (1.2)	43 (1.0)			
More than 12 months ago	68 (4.0)	56 (6.6)	112 (6.6)	236 (5.6)			
No	1,621 (95.0)	784 (92.5)	1,564 (92.2)	3,969 (93.4)			
Hypertension					23.448 (6)	<.001	.053
Within last 12 months	44 (2.6)	21 (2.5)	46 (2.7)	111 (2.6)			
More than 12 months ago	185 (10.8)	126 (14.9)	278 (16.4)	589 (13.9)			
No	1,476 (86.5)	700 (82.5)	1,372 (80.8)	3,548 (83.5)			
Arthritis					4.312 (8)	.828	.023
Within last 12 months	16 (0.9)	9 (1.1)	22 (1.3)	47 (1.1)			
More than 12 months ago	61 (3.6)	28 (3.3)	72 (4.2)	161 (3.8)			
No	1,627 (95.4)	810 (95.5)	1,600 (94.3)	4,037 (95.0)			
COPD					8.693 (8)	.369	.032
Within last 12 months	0 (0.0)	0 (0.0)	2 (0.1)	2 (0.0)			
More than 12 months ago	3 (0.2)	2 (0.2)	5 (0.3)	10 (0.2)			
No	1,701 (99.7)	845 (99.6)	1,689 (99.5)	4,235 (99.6)			
Heart disease					1.056 (6)	.983	.011
Within last 12 months	3 (0.2)	1 (0.1)	4 (0.2)	8 (0.2)			
More than 12 months ago	20 (1.2)	9 (1.1)	18 (1.1)	47 (1.1)			
No	1,682 (98.6)	838 (98.8)	1,674 (98.6)	4,194 (98.7)			

Other Conditions Across Socioeconomic Groups

Most rare physical, mental and neurological conditions showed no socioeconomic association, although other mental disorder and the residual other-illness category varied significantly across socioeconomic groups; these small effects and sparse cells warrant cautious interpretation.

Condition/status	Poor, n (%)	Middle, n (%)	Wealthy, n (%)	Total, n (%)	χ^2 (df)	p	Cramer's V
Sickle-cell disease					9.500 (8)	.302	.033
Within last 12 months	2 (0.1)	0 (0.0)	1 (0.1)	3 (0.1)			
More than 12 months ago	11 (0.6)	5 (0.6)	13 (0.8)	29 (0.7)			
Depression					8.737 (6)	.189	.032
Within last 12 months	5 (0.3)	0 (0.0)	5 (0.3)	10 (0.2)			
More than 12 months ago	6 (0.4)	7 (0.8)	4 (0.2)	17 (0.4)			
Dementia					5.566 (6)	.474	.026
Within last 12 months	4 (0.2)	1 (0.1)	0 (0.0)	5 (0.1)			
More than 12 months ago	7 (0.4)	3 (0.4)	6 (0.4)	16 (0.4)			
Other mental disorder					14.955 (6)	.021	.042
Within last 12 months	4 (0.2)	2 (0.2)	3 (0.2)	9 (0.2)			
More than 12 months ago	29 (1.7)	10 (1.2)	8 (0.5)	47 (1.1)			
Cancer					11.228 (6)	.082	.036
Within last 12 months	0 (0.0)	0 (0.0)	3 (0.2)	3 (0.1)			
More than 12 months ago	9 (0.5)	3 (0.4)	19 (1.1)	31 (0.7)			
Other illness/disease					20.316 (8)	.009	.049
Within last 12 months	12 (0.7)	0 (0.0)	3 (0.2)	15 (0.4)			

Citation: Paul Andrew Bourne, Feliciano Thorpe (2026) The Morbidity Paradox Among Jamaicans Reporting No Illness: Chronic Disease, Functional Limitations, and Social Patterning in the 2023 Jamaica Survey of Living Conditions. Journal of Family Medicine and Preventive Medicine. SRC/JFMPM-155.

DOI: doi.org/10.47363/JFMPM/2026(3)147

More than 12 months ago	18 (1.1)	10 (1.2)	11 (0.6)	39 (0.9)			
Epilepsy					1.580 (4)	.812	.014
Within last 12 months	4 (0.2)	1 (0.1)	3 (0.2)	8 (0.2)			
More than 12 months ago	8 (0.5)	2 (0.2)	5 (0.3)	15 (0.4)			
Kidney disease					5.618 (6)	.467	.026
Within last 12 months	1 (0.1)	0 (0.0)	2 (0.1)	3 (0.1)			
More than 12 months ago	2 (0.1)	3 (0.4)	9 (0.5)	14 (0.3)			

Cancer Type and Socioeconomic Position

Cancer type was not significantly associated with socioeconomic group, although the small number of cancer cases substantially limits inferential precision.

Cancer type	Poor, n	Middle, n	Wealthy, n	Total, n
Breast cancer	1	1	4	6
Cervical cancer	1	0	0	1
Colon cancer	0	1	1	2
Lung cancer	1	0	0	1
Lymphoma	0	0	1	1
Nasopharyngeal cancer	0	0	1	1
Prostate cancer*	5	1	13	19
Womb cancer	1	0	1	2
Not stated	0	0	1	1
Total reported cancers	9	3	22	34

Functional Health Across Socioeconomic Groups

Functional health status did not differ significantly across socioeconomic groups, indicating that the observed functional limitations were not explained by socioeconomic quintile alone in bivariate analysis.

Functional health status	Poor, n (%)	Middle, n (%)	Wealthy, n (%)	Total, n (%)	χ^2 (df)	p	Cramer's V
No difficulty	1,330 (84.0)	646 (81.2)	1,343 (81.9)	3,319 (82.6)	8.395 (6)	.211	.032
Some difficulty	126 (8.0)	79 (9.9)	171 (10.4)	376 (9.4)			
A lot of difficulty	62 (3.9)	37 (4.6)	69 (4.2)	168 (4.2)			
Cannot do at all	65 (4.1)	34 (4.3)	56 (3.4)	155 (3.9)			
Total	1,583 (100.0)	796 (100.0)	1,639 (100.0)	4,018 (100.0)			
More than 12 months ago	6 (0.4)	7 (0.8)	4 (0.2)	17 (0.4)			
Dementia					5.566 (6)	.474	.026
Within last 12 months	4 (0.2)	1 (0.1)	0 (0.0)	5 (0.1)			
More than 12 months ago	7 (0.4)	3 (0.4)	6 (0.4)	16 (0.4)			

Multivariable Predictors of Functional-Health Difficulty

In the adjusted model, older age and single status increased the odds of functional-health difficulty, whereas secondary education, post-secondary education and male sex were protective; the model was significant, adequately calibrated and improved overall classification, although sensitivity for functional difficulty remained low.

Predictor	B	SE	Wald χ^2	p	Adjusted OR	95% CI for OR
Single	0.300	0.125	5.746	0.017	1.350	1.056–1.725
Visiting relationship	0.093	0.184	0.255	0.614	1.097	0.765–1.574
Common-law relationship	0.053	0.190	0.079	0.778	1.055	0.727–1.531
Secondary education	–0.543	0.219	6.150	0.013	0.581	0.378–0.892
Post-secondary education	–0.764	0.218	12.256	<0.001	0.466	0.304–0.714
Male	–0.538	0.103	27.144	<0.001	0.584	0.477–0.715
Head of household	–0.124	0.114	1.190	0.275	0.883	0.707–1.104
Age (years)	0.059	0.004	268.245	<.001	1.061	1.054–1.069
Total annual expenditure	0.000	0.000	5.872	0.015	1.000	1.000–1.000
Constant	–3.473	0.348	99.492	<0.001	0.031	—

Discussion

The principal contribution of this study is the demonstration that reporting no current illness does not equate to being free of chronic morbidity or functional limitation. Nearly one in six respondents with valid functional data experienced at least some difficulty; substantial proportions had previously recognised hypertension, diabetes, asthma or arthritis. This pattern is consistent with earlier Jamaican research questioning whether subjective illness measures can stand alone as representations of objective health [1]. It also accords with JHLS III evidence showing sizeable gaps between what Jamaicans report and what biomedical measurement detects for several non-communicable diseases [3]. International research similarly treats functional status and self-rated health as overlapping but non-identical health domains [7,8]. The present findings support the use of complementary disease, functioning and subjective-health measures in Jamaican surveillance rather than reliance on a single illness question.

Hypertension provides the clearest illustration of concealed or normalised morbidity in the present sample because 16.5% had ever reported the condition despite reporting no current illness. This estimate should not be interpreted as population prevalence, but it indicates that a recognised chronic diagnosis may coexist with a contemporaneous perception of being ill. JHLS III reported measured hypertension far above self-reported hypertension, reinforcing the possibility that awareness and illness perception incompletely capture cardiometabolic risk [3]. Recent rural Jamaican research similarly identified hypertension as a major NCD, with older age strongly increasing risk [4, 12]. Globally, hypertension is frequently asymptomatic, making it especially likely to be omitted from an individual's immediate concept of illness when symptoms are absent or controlled. [13–15] Thus, the no-current-illness category should be understood as a subjective state at the survey reference point rather than evidence of disease absence.

The strong age gradient in functional-health difficulty is one of the most consequential multivariable findings. Each additional year of age increased the odds of difficulty by approximately 6.1%, producing a substantial cumulative increase across decades. This finding parallels Jamaican evidence that older age is a major determinant of hypertension and diabetes [4] and international evidence linking ageing with functional limitation

[7–9]. Ageing may influence functioning through accumulated disease, musculoskeletal change, sensory loss, frailty and reductions in physiological reserve even when individuals do not label themselves as currently ill. The coexistence of no reported illness and age-related limitations illustrates why function-centred approaches are essential in ageing populations. From a policy perspective, screening older adults for mobility and daily-function difficulties may identify needs that conventional illness questions fail to reveal.

Sex differences also persisted after adjustment, with males having 41.6% lower odds of functional-health difficulty than females. This finding is compatible with earlier Jamaican evidence describing paradoxical sex patterns in self-reported illness and health outcomes [5]. It also resembles the global evidence from 59 countries in which women reported poorer health and more limitations across multiple functional domains [6]. Such differences may reflect biological exposures, chronic-condition profiles, longevity, social roles, differential symptom recognition and gendered reporting practices rather than a single mechanism. The result should not be interpreted to mean that men are uniformly healthier, particularly given Jamaican evidence that lower male illness reporting can coexist with adverse mortality patterns [5]. Instead, it reinforces the need for sex-sensitive interpretation of subjective and functional health indicators.

Education emerged as an independent protective correlate of functional health, with secondary and especially post-secondary education associated with lower odds of difficulty relative to the omitted educational category. This relationship remained after adjustment for age, sex, union status, household-head status and expenditure, suggesting that education captures more than immediate economic resources. Education may shape health literacy, occupational exposure, preventive behaviour, access to information and the capacity to navigate health systems. Recent Jamaican rural evidence similarly found secondary or higher education protective against diabetes [4]; international social-determinants research links cumulative disadvantage with functional limitation [10]. The result is also consistent with the pronounced socioeconomic gradient in educational attainment observed in the present study, where post-secondary education increased across wealth groups. These findings support policies that treat education as a long-term social determinant of functional

ageing rather than merely a socioeconomic descriptor.

The socioeconomic results reveal a more complex picture than a simple poverty-health gradient. Insurance coverage was strongly patterned by socioeconomic position, yet functional-health status itself did not differ significantly across wealth groups in the bivariate analysis. Mean, longstanding diabetes and hypertension were more frequently reported among middle and wealthy respondents than among poor respondents, although effect sizes were small. One explanation is that wealthier respondents may have greater access to screening, diagnosis and continuity of care and greater awareness of chronic conditions. Conversely, poorer respondents may experience underdiagnosis or may be less likely to conceptualise chronic symptoms as illness, making recognised disease an imperfect proxy for underlying disease burden. The findings caution against interpreting higher reported diagnosis in advantaged groups as evidence that poorer groups necessarily carry lower biomedical risk.

The insurance gradient is particularly important because 92.1% of poor respondents reporting no current illness were uninsured compared with 68.8% of wealthy respondents. Earlier Jamaican research on uninsured persons showed that health status, healthcare-seeking and socioeconomic resources are intertwined [11]. In the present study, the low overall insurance coverage means that absence of current illness may coincide with limited financial protection against future healthcare needs. This is consequential for individuals with known hypertension, diabetes or functional difficulty who may require monitoring even when they do not perceive themselves as currently ill. International social-determinants research similarly shows that disadvantage is associated with access to care and health-service utilisation [10]. Health financing strategies should recognise the population that appears healthy by self-report but remains exposed to chronic-disease and functional-health risks.

Union status also retained an independent association, with single respondents experiencing 35.0% higher odds of functional-health difficulty than the reference union category. Visiting and common-law relationships were not independently significant, suggesting that the association is not uniform across all non-marital union forms. Partnership may influence health through social support, resource pooling, assistance with daily activities, health monitoring and healthcare encouragement, although cross-sectional data cannot establish these mechanisms. Cross-national studies of older adults have shown that marital status can be associated with poorer self-rated health, but the magnitude and direction vary by social setting [8]. The Jamaican union system includes marital, common-law and visiting relationships, making culturally specific analysis preferable to a simple married-versus-unmarried dichotomy. Future research should investigate whether social support mediates the relationship between union status and functional health in Jamaica.

The mental-health findings require particular caution because depression, dementia and other mental disorders were infrequently reported in the selected population. Low frequencies may reflect genuinely low recognised prevalence, but they may also reflect underdiagnosis, stigma, limited service contact or the tendency not to define controlled or longstanding conditions as current illness. The significant socioeconomic association for other mental disorders was small and should not be overinterpreted given sparse cells. Nevertheless, the existence of recognised mental and neurological conditions among respondents reporting no

illness supports the broader conceptual argument that illness identity and diagnosed morbidity are distinct. International studies show that mental health contributes substantially to sex differences and variation in self-reported health [6]. More detailed Jamaican surveys incorporating validated symptom scales would help distinguish diagnosed mental illness from unrecognised psychological morbidity.

Cancer was uncommon in the dataset and prostate cancer accounted for most identified cases, followed by breast cancer. The cancer-type distribution should be interpreted descriptively because only 34 cases were reported and socioeconomic comparisons were statistically underpowered. Nevertheless, the presence of previously diagnosed cancer among respondents reporting no current illness is substantively important. It may indicate survivorship, remission, treatment success or a respondent's distinction between having a medical history and currently feeling ill. This distinction illustrates the temporal dimension of self-reported illness and the potential for survey questions with short reference periods to classify persons with serious disease histories as not currently ill. Longitudinal work could clarify how disease history, treatment status and functional recovery shape illness self-identification.

The regression model was statistically significant, explained a meaningful proportion of variation and showed acceptable Hosmer-Lemeshow calibration, but its predictive performance was asymmetric. Overall classification improved to 82.0%, yet sensitivity for functional difficulty was only 31.3% compared with specificity of 95.6%. Consequently, the model was substantially better at identifying respondents without functional difficulty than those experiencing difficulty. This imbalance is important because high overall accuracy can be misleading when the outcome is comparatively uncommon. Future analyses should consider receiver-operating-characteristic measures, alternative cut-points, survey weighting and models designed to improve identification of the functionally vulnerable group. Total annual expenditure should also be rescaled into interpretable monetary units because its unit-level odds ratio rounded to 1.000 despite statistical significance.

Several limitations qualify the findings. First, the cross-sectional design prevents causal inference and cannot determine whether socioeconomic or relational characteristics preceded functional limitation. Second, chronic conditions were based on recognised or self-reported diagnoses, so undiagnosed disease is not captured, and the estimates are not clinical prevalence measures. Third, missing data reduced the regression sample to 3,161 respondents, and healthcare-utilisation data were available for only 21 respondents in the filtered population. Fourth, sparse cells affect several rare-disease and cancer comparisons; the supplied analyses were unweighted and should not automatically be interpreted as weighted national prevalence estimates. Despite these limitations, the study's strength lies in using a large contemporary Jamaican dataset to expose health heterogeneity within a population conventionally classified as not currently ill.

Conclusion

This study indicates that the absence of self-reported current illness among Jamaicans conceals meaningful variation in chronic disease, functional health, insurance coverage and social vulnerability. Hypertension, diabetes and other recognised conditions remained present; a sizeable minority experienced functional difficulty despite denying current illness. Age was the strongest predictor of functional difficulty, whereas male sex and higher educational

attainment were protective and single status increased risk. The findings extend earlier Jamaican research on the limitations and paradoxes of subjective health measurement and are consistent with international evidence supporting multidimensional health assessment. Population surveillance should combine current-illness questions with functional, diagnostic and healthcare-access measures to identify persons whose needs are not visible through illness reporting alone. Such an approach would provide a more clinically and socially meaningful representation of health and could strengthen prevention, ageing policy and equitable health-system planning in Jamaica.

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