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Health Functionality Comorbidity and Socioeconomic Status Among Jamaicans Married for at Least 20 Years: Evidence from the 2023 Jamaica Survey of Living Conditions

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ABSTRACT

Background: Marriage has been associated internationally with health protection, social support and mortality advantages, yet little contemporary Jamaican research has examined the health profile of people who have remained married for long periods.

Objective: To examine health status, functional health, chronic morbidity, insurance coverage and socioeconomic characteristics among Jamaicans married for at least 20 years. Methods: A quantitative cross-sectional secondary analysis of the 2023 Jamaica Survey of Living Conditions was conducted. The analytical sample comprised 423 respondents satisfying MARRIAGE_YRS ≥20. Descriptive statistics, Pearson chi-square tests and Cramer's V assessed health patterns by sex and age.

Results: Women comprised 50.6% of respondents; 62.6% were aged 60 years or older, 46.3% were wealthy, and 30.7% were insured. Hypertension was the leading reported chronic condition (42.3%), followed by diabetes (17.7%) and arthritis (13.0%). Sex was not significantly associated with functional health, diabetes, hypertension or arthritis. Age, however, was strongly associated with hypertension (χ^2=41.287, P<.001), arthritis (χ^2=21.729, P=.001) and functional health (χ^2=80.038, P<.001). Functional limitation rose from 14.7% among respondents aged 45–59 years to 68.1% among those aged 75 years or older.

Conclusion: The study addresses a Jamaican evidence gap by demonstrating that health among people in marriages lasting at least 20 years is characterised more strongly by ageing than by sex. Long marital duration should not be interpreted as independently protective or harmful without accounting for age, socioeconomic position and selection into enduring marriage. The findings support age-sensitive NCD prevention, functional-health interventions and financial protection for older adults in enduring marital unions.

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Introduction

Marriage remains one of the most enduring social institutions influencing adult living arrangements, social support, economic resources, caregiving, health behaviour and exposure to psychosocial stress. A considerable international literature has associated marriage with better physical and psychological health and lower mortality compared with several unmarried states, but contemporary evidence increasingly warns against interpreting these associations as simple causal effects of marriage. Healthier people may be more likely to enter and remain in marriage, while marriage itself may provide emotional support, pooled economic resources, behavioural regulation and caregiving that influence health. Moreover, the health benefits associated with marriage may differ substantially according to sex, age, marital quality, socioeconomic circumstances and cultural context. These competing mechanisms indicate that research should move beyond asking whether married people are healthier and instead investigate the health characteristics of marital populations and the social conditions shaping those characteristics [1-3].

Jamaica provides a valuable setting for examining these questions because population ageing and the high burden of non-communicable diseases increasingly overlap with changing household and family structures. Previous Jamaican research found differences in health status and health conditions between married and unmarried men, while other studies established substantial burdens of hypertension, diabetes and other chronic illnesses among middle-aged and older Jamaicans. Socioeconomic circumstances are also important because education, household resources and neighbourhood conditions are related to cardiovascular health and access to the resources required for disease prevention and management. These findings demonstrate that marriage, age and health are interconnected within Jamaica but do not provide a

contemporary national examination of people who have remained married for at least two decades [4-6].

Long-duration marriage is analytically important because individuals who remain married for 20 years or more have experienced prolonged exposure to a shared household environment. Spouses may share diet, neighbourhood, financial resources, stressors, health behaviours and healthcare decision-making, creating the possibility of convergence in health risks and chronic diseases over time. Studies of older couples outside Jamaica have demonstrated spousal concordance in hypertension, diabetes, arthritis and other conditions, while research on marital quality indicates that deteriorating health can itself influence relationship quality. Marriage must be conceptualised as both a social context for health and an outcome shaped by selection, survival and relationship stability [7-9].

The distinction between marital duration and ageing is important. Remaining married for at least 20 years necessarily produces an age-selected population because younger adults have had fewer years in which to accumulate such marital duration. Age is independently associated with hypertension, arthritis, cardiovascular disease, multimorbidity and functional decline, making it potentially misleading to attribute the health profile of long-married individuals directly to marriage. Comparable research in Africa, Latin America, North America and Europe has repeatedly identified age, socioeconomic circumstances and living arrangements as major determinants of chronic disease and physical functioning [2-17].

Research Gap

Despite longstanding Jamaican research on marital status, older adults and chronic morbidity, a clear empirical gap remains. Earlier Jamaican studies compared married and unmarried people or examined chronic illnesses among broader age groups, but they did not isolate people who had remained married for at least 20 years and simultaneously examine their socioeconomic profile, health insurance, chronic morbidity, sex differences, age differences and functional health [4-6]. Contemporary international scholarship likewise focuses predominantly on marital status, partnership versus non-partnership, marital transitions, widowhood or marital quality rather than on the multidimensional health profile of people selected according to prolonged marriage duration [1-3].

The present study addresses this gap by conducting a secondary analysis of nationally collected JSLC 2023 data restricted to respondents reporting at least 20 years of marriage. The study does not assume that longevity of marriage causes better health. Instead, it asks what health, morbidity, functional and socioeconomic patterns characterise this relatively understudied Jamaican population and whether those patterns differ more strongly according to sex or age. This distinction is central to the study and is revisited in the Discussion and Conclusion.

Research Aim

The principal aim was to examine the health status, functionality, chronic morbidity, health-insurance coverage and socioeconomic characteristics of Jamaicans who had been married for at least 20 years.

Research Objectives

The Objectives were to

- Describe the demographic, socioeconomic and geographical characteristics of Jamaicans married for at least 20 years
- Identify the major chronic health conditions within this population
- Assess health-insurance coverage and functional-health status
- Determine whether selected chronic conditions differ between men and women
- Determine whether chronic morbidity differs across age cohorts
- Examine whether functional-health status differs by sex and age
- Establish whether age or sex represents the more important demographic correlate of health within this long-marriage population

Research Questions

The Study Addresses the Following Questions

- What demographic and socioeconomic characteristics define Jamaicans married for at least 20 years? 2. What chronic conditions are most commonly reported by these respondents?
- What proportions are insured and experience functional health limitations?
- Are chronic conditions significantly associated with sex?
- Are chronic conditions significantly associated with age?
- Does functional health differ significantly between men and women?
- Does functional health decline significantly across age cohorts?
- To what extent can the observed health profile reasonably be interpreted as a characteristic of long marital duration rather than an artefact of population ageing?

Theoretical Framework

Marriage Protection and Social Causation Perspective

The marriage-protection perspective proposes that marriage can improve health through social integration, emotional support, behavioural monitoring, pooled financial resources and practical caregiving. Married partners may encourage medication adherence, healthier diets, preventive consultations and reduced engagement in risky behaviour. Long-duration marriages may strengthen these mechanisms because partners have had extended opportunities to develop shared routines and caregiving roles. However, research examining entry into marriage has found that not all apparent physical-health advantages are necessarily produced by marriage itself, and some may instead reflect pre-existing characteristics of people who marry [1-3].

The present study regards marriage protection as a plausible but untested mechanism. The relatively high prevalence of chronic disease among respondents married for at least 20 years cannot be interpreted as contradicting marriage protection because the sample is predominantly older. Similarly, the comparatively high proportion reporting no functional difficulty may reflect marital support, selective survival, socioeconomic resources, underlying health selection or combinations of these factors. Cross-sectional data cannot distinguish these mechanisms.

Marriage Selection Perspective

The selection hypothesis argues that healthier, economically secure or psychosocially advantaged individuals may be more likely to enter marriage, avoid marital dissolution and remain married for prolonged periods. Consequently, people observed in a marriage after 20 or more years represent a selected subset of everyone who originally married. Genetically informed and longitudinal research demonstrates that some physical-health advantages attributed to marriage are substantially explained by selection rather than direct causation. Large-scale meta-analyses also show that marital-status associations vary considerably across sex and

population groups [1-3].

This theoretical issue is especially relevant to the current sample. Respondents who remained married for two decades may differ systematically from people whose marriages ended through divorce, separation or widowhood and from never-married Jamaicans. The study contains no comparison group representing those marital trajectories. It describes health within enduring marriages but cannot estimate a causal "effect of long marriage".

Shared-Environment and Spousal-Concordance Perspective

A third theoretical mechanism concerns the shared environment of couples. Spouses frequently consume similar foods, experience common neighbourhood conditions, share economic resources and influence each other's smoking, physical activity and healthcare decisions. Chronic-condition concordance among older Mexican-American couples has been documented for hypertension, diabetes, arthritis and cancer, illustrating how shared environmental and behavioural exposures may create health similarities between spouses. Research on marital quality further demonstrates that health changes in either partner can modify the relationship itself [7-9].

The present JSLC analysis cannot directly assess concordance because respondents were analysed as individuals rather than matched husband-wife dyads. Nevertheless, the shared-environment framework is useful for interpreting why long-duration marriage may represent a distinctive social context for chronic disease.

Life-Course and Ageing Framework

The fourth component of the theoretical framework is the life-course perspective. Chronic diseases and functional limitations accumulate through biological ageing and prolonged exposure to behavioural and socioeconomic risks. Older age is associated with greater probabilities of hypertension, arthritis, cardiovascular disease, disability and multimorbidity across widely different national contexts [2-17].

Because virtually the entire analytical population was aged 45 years or older, ageing represents an indispensable explanatory context. The study consequently hypothesises that age differences will be bigger than sex differences for the principal chronic and functional-health measures.

Literature Review

Marriage, Health and Selection

International research traditionally reports better survival among married than unmarried populations, but contemporary evidence shows that the relationship is heterogeneous. Meta-analyses involving millions of adults have found elevated cardiovascular, cancer and all-cause mortality among several unmarried groups, with some of the relative disadvantages being stronger among men. Nevertheless, these studies compare marital statuses and cannot determine whether remaining married causes superior health because socioeconomic and health selection influence entry into and exit from marriage [1-3].

Horn and colleagues used genetically informed data to examine selection and causation and found that the observed physical-health benefit of marriage could be accounted for substantially by non-random selection. Wang and colleagues' meta-analysis demonstrated that the mortality association of marital status differs between men and women. More recent evidence similarly confirms considerable geographic and sex heterogeneity [1-3]. These findings caution against describing an observed health profile among long-married Jamaicans as a "marriage effect".

Jamaican Evidence

Bourne's Jamaican study of married and unmarried men documented differences in health conditions and self-rated health and identified marriage as a potentially important social correlate of men's health. Another Jamaican investigation of people reporting chronic disease demonstrated the importance of hypertension, diabetes and other NCDs to self-reported health status. More recent work on ideal cardiovascular health in urban Jamaica found that socioeconomic resources, including education and household assets, were relevant to cardiovascular-health profiles [4-6].

The present study extends those findings in several respects. First, both women and men are included. Second, the defining criterion is not merely current marriage but at least 20 reported years of marriage. Third, the analysis simultaneously considers morbidity, functional status, socioeconomic group, insurance and age. This multidimensional approach directly addresses the research gap identified earlier.

Caribbean and Latin American Evidence

Chronic morbidity in Jamaica must also be interpreted within its Caribbean setting. Howitt and colleagues demonstrated strong social patterning of diabetes, hypertension and associated risk factors in Barbados, including important gender and socioeconomic differences. Functional limitation among older adults across Latin American and Caribbean cities has also been associated with obesity and chronic disease, demonstrating that physical functioning is inseparable from accumulated NCD risk. Chilean evidence indicates that marital status and living arrangements remain relevant to survival at older ages even after accounting for demographic, socioeconomic and health characteristics [10-12].

These findings are relevant to the present Jamaican results for two reasons. First, they reinforce the importance of examining chronic disease and functional health simultaneously. Second, they demonstrate that family and marital variables operate within a broader system of age and socioeconomic inequalities rather than independently of those conditions.

Latin American evidence also illustrates substantial gender differentiation in hypertension. The SALURBAL study of more than 109,000 adults across 230 cities found that the relationship between socioeconomic status and hypertension differed between women and men [10-18]. Such findings make the near-significant female excess in hypertension observed in the current Jamaican sample worthy of attention even though the Pearson test did not meet the conventional $P<.05$ threshold.

North American Evidence

North American studies have explored marriage using both dyadic and longitudinal designs. Among older Mexican-American couples, Stimpson and Peek reported concordance between spouses for conditions including hypertension, diabetes, arthritis and cancer, implying shared household exposures and reciprocal behavioural influence. Tracy and Utz showed that changes in physical health were associated with changes in marital quality across a 20-year period of midlife. Chen, Waite and Lauderdale further found that positive and negative marital relationship characteristics were related to health-relevant sleep outcomes among older US adults [7-9].

These studies offer a useful comparison with Jamaica. They suggest that marriage should not be regarded merely as a static legal category; relationship duration, relationship quality, shared behaviours and the health of both spouses may matter. The JSLC lacks sufficient information in the supplied output to analyse these dyadic mechanisms directly, but the findings establish the foundation for future Jamaican couple-based studies.

African Evidence

African studies show that ageing, marital circumstances and chronic disease interact strongly in settings undergoing epidemiological transition. Among older adults in Ghana, Minicuci and colleagues documented important burdens of hypertension and osteoarthritis and demonstrated sociodemographic patterning of NCDs. In rural Malawi, Myroniuk examined marital dissolution among adults aged 45 years and older and highlighted the potential role of lost spousal resources and kinship support in health following marital transitions. South African research likewise documented substantial age-related deterioration in physical functioning and demonstrated the importance of comparing functional trajectories across ageing populations [13-15].

These African findings are pertinent because the Jamaican sample is overwhelmingly middle-aged and older. The strong age gradient in functional limitation identified in the present study resembles international evidence showing that physical capacity deteriorates substantially in later life. It strengthens the argument that ageing, rather than marriage duration by itself, must be central to interpretation.

Europe and Other International Evidence

European evidence also demonstrates the intersection between partnership, living arrangements and health. Zueras and colleagues found that partnership and living arrangements were associated with mortality among Europeans aged 50 years and older, with variation by sex, age and welfare-state context. More recently, Jang and colleagues demonstrated that living with a spouse or partner was associated with fewer accumulated chronic diseases among some native-born European populations, but the apparent benefit was weaker or absent in several immigrant groups. Global meta-analytic evidence similarly shows that marital-status relationships vary by sex and geography rather than operating as a universal biological effect [2-17].

This international heterogeneity is highly relevant to Jamaica. Cultural norms surrounding marriage, extended-family support, gender roles, household finances and healthcare access differ across societies. Jamaican evidence is required rather than assuming that findings from Europe or North America apply directly.

Materials and Methods

Research Design

The study employed a quantitative cross-sectional secondary-data design using the 2023 Jamaica Survey of Living Conditions (JSLC). The design is appropriate for estimating distributions and testing associations among demographic, socioeconomic and health variables at a defined point in the survey cycle. Because exposures and health outcomes were measured within the same cross-sectional dataset, temporal ordering cannot be established.

Jamaica Survey of Living Conditions 2023

The JSLC is Jamaica's principal recurring household living-conditions survey and provides data covering demographic characteristics, household consumption and poverty, health, education, housing and social protection. The 2023 JSLC included 4,442 individuals from 1,719 households, with data collected by Computer Assisted Personal Interviewing between July 2023 and March 2024. The survey supports analysis at individual and household levels and disaggregation according to age, sex, region and socioeconomic quintile [19-21].

The dataset was made available through the Documentation and Data Centre/Derek Gordon Databank of the Sir Arthur Lewis Institute of Social and Economic Studies (SALISES), The University of the West Indies, Mona Campus, Kingston, Jamaica. SALISES identifies the Derek Gordon Databank, the Statistical Institute of Jamaica and the Planning Institute of Jamaica as repositories associated with the JSLC series and lists JSLC 2023 among archived datasets [19-21].

Analytical Population

The Present Study was Restricted to Respondents Satisfying the SPSS filter

MARRIAGE_YRS ≥20

This produced a working analytical population of 423 respondents. The output was unweighted. All statistics were based on valid observations according to the relevant SPSS procedure. The analytical criterion identifies individuals reporting at least 20 years of marriage; it does not establish that both spouses within every marriage appear in the analytical population.

Variables

The demographic and socioeconomic variables comprised sex, age cohort, socioeconomic group, education, household-head status, parish and area of residence. Socioeconomic position was grouped as poor (quintiles 1 and 2), middle (quintile 3) and wealthy (quintiles 4 and 5).

Health variables included general illness, injury requiring medical attention, asthma, diabetes, hypertension, arthritis, COPD, heart disease, sickle cell disease, depression, dementia, other mental disorders, cancer, epilepsy and kidney disease. Health insurance was coded as insured versus uninsured.

Functional health contained four categories: - no difficulty; - some difficulty; - a lot of difficulty; and - cannot do at all.

For descriptive interpretation, the last three categories were also combined into an "any functional limitation" indicator. This was a derived descriptive summary and was not a separate variable in the original output.

Chronic-Disease Reporting

Several chronic-condition variables differentiated between conditions reported in the previous 12 months and those reported more than 12 months previously. For ease of descriptive presentation, affirmative categories were combined to provide "combined reported history". This combination does not represent a separately measured prevalence variable.

Importantly, Pearson chi-square tests reported in the inferential tables were calculated using the original SPSS response categories, not the descriptively collapsed disease-history variable. This distinction was maintained to avoid implying that inferential testing had been conducted on recoded binary outcomes when it had not.

Statistical Analysis

Frequencies and percentages summarised categorical characteristics. Pearson chi-square tests evaluated associations between sex or age cohort and categorical health outcomes.

Cramer's V described association magnitude.

Statistical significance was evaluated at $P<0.05$. Results involving sparse expected frequencies were treated cautiously. In several analyses of rare diseases, conventional chi-square expected-frequency guidelines were violated; these results are presented for completeness but are not given the same inferential emphasis as hypertension or functional health.

Ethical Considerations

The analysis used secondary archived survey data and involved no direct contact with survey participants. No, personally identifying information appears in the analytical output. The supplied material did not provide an ethics-approval number specifically for the present secondary analysis, and none is inferred.

Findings

Demographic and Socioeconomic Characteristics

Table 1 presents the demographic and socioeconomic characteristics of the 423 respondents married for at least 20 years. The sex distribution was almost equal, comprising 209 men (49.4%) and 214 women (50.6%). The population was strongly age-selected: 46.3% were aged 60–74 years, 35.5% were aged 45–59 years, 16.3% were aged at least 75 years, and only 1.9% were aged 25–44 years. Consequently, 98.1% were at least 45 years old and 62.6% were at least 60 years old, a feature that is central to interpreting the subsequent morbidity findings.

Socioeconomic heterogeneity remained substantial. Wealthy respondents represented 46.3%, while 35.5% were poor and 18.2% were in the middle group. Among respondents with valid educational data, 60.7% had post-secondary education, 32.7% had secondary education, and 6.6% had primary education or below. Household heads constituted 54.4%. Rural respondents represented 44.7%, compared with 28.8% living in other urban centres and 26.5% in the Greater Kingston Metropolitan Area. The mean reported age at marriage was 32.5±10.3 years (95% CI, 31.6–33.5 years).

Table 1: Demographic and Socioeconomic Characteristics of Respondents Married for ≥20 Years (N=423)

Characteristic	Category	n	%
Sex	Male	209	49.4
	Female	214	50.6
Socioeconomic group	Poor (Q1-Q2)	150	35.5
	Middle (Q3)	77	18.2
	Wealthy (Q4-Q5)	196	46.3
Education (valid n=422)	Primary/below	28	6.6
	Secondary	138	32.7
	Post-secondary	256	60.7
Head of household	No	193	45.6
	Yes	230	54.4
Age cohort	25-44	8	1.9
	45-59	150	35.5
	60-74	196	46.3
	≥75	69	16.3
Area	GKMA	112	26.5
	Other Urban Centres	122	28.8
	Rural	189	44.7
Average age at marriage	Mean ± SD (years)	32.5 ± 10.3	95% CI 31.6-33.5

Percentages are based on the unweighted analytical sample; education has one missing observation.

General Health and Morbidity Profile

Table 2 demonstrates that individual disease questions identified considerably more chronic morbidity than the general recent-illness item. Hypertension was the dominant condition, with 179 respondents (42.3%) reporting either recent or earlier disease history. Diabetes affected 75 respondents (17.7%) and arthritis 55 (13.0%). Heart disease and cancer were each reported by slightly more than 3%, while all other listed conditions occurred at substantially lower frequencies.

The pattern indicates that much of the chronic-disease burden was established rather than newly reported. For hypertension, 35.9% of the entire analytical population reported disease more than 12 months previously compared with 6.4% reporting it during the previous 12 months. Comparable distributions were observed for diabetes and arthritis. Given the pronounced age structure of this sample, these results are consistent with accumulation of chronic disease across the life course rather than evidence that prolonged marriage itself produces morbidity.

Table 2: General Health and Chronic Morbidity Among Respondents Married for ≥20 Years

Condition	Last 12 months n (%)	>12 months n (%)	Combined n (%)	
			Yes	No
Asthma	3 (0.7)	10 (2.4)	13 (3.1)	408 (96.5)
Diabetes	16 (3.8)	59 (13.9)	75 (17.7)	348 (82.3)
Hypertension	27 (6.4)	152 (35.9)	179 (42.3)	244 (57.7)
Arthritis	14 (3.3)	41 (9.7)	55 (13.0)	368 (87.0)
COPD	0	0	0	423 (100.0)
Heart disease	2 (0.5)	14 (3.3)	16 (3.8)	407 (96.2)
Sickle cell disease	1 (0.2)	3 (0.7)	4 (0.9)	419 (99.1)
Depression	0	2 (0.5)	2 (0.5)	420 (99.3)
Dementia	2 (0.5)	2 (0.5)	4 (0.9)	419 (99.1)
Other mental disorder	0	3 (0.7)	3 (0.7)	420 (99.3)
Cancer	2 (0.5)	12 (2.8)	14 (3.3)	409 (96.7)
Epilepsy	0	2 (0.5)	2 (0.5)	421 (99.5)
Kidney disease	1 (0.2)	4 (0.9)	5 (1.2)	418 (98.8)

Some original variables included small don't-know categories; combined affirmative histories are shown descriptively.

Distribution of Major Chronic Conditions

Table 3 isolates the chronic conditions contributing most strongly to the morbidity profile. Hypertension affected more than twice as many respondents as diabetes and more than three times as many as arthritis. The magnitude of hypertension is notable because 42.3% reported an affirmative history and 35.9% had experienced the condition for more than the preceding 12 months.

The table also illustrates the potential for multimorbidity, although respondent-level co-occurrence cannot be calculated from these frequency summaries. Hypertension, diabetes, arthritis and heart disease may occur in the same individuals, especially within older populations. A future extension of the JSLC analysis should create a multimorbidity count rather than treating every chronic condition independently.

Table 3: Major Chronic Conditions among Respondents Married for ≥20 Years

Condition	Last 12 months n (%)	>12 months n (%)	Combined n (%)	
			Yes	No
Hypertension	27 (6.4)	152 (35.9)	179 (42.3)	244 (57.7)
Diabetes	16 (3.8)	59 (13.9)	75 (17.7)	348 (82.3)
Arthritis	14 (3.3)	41 (9.7)	55 (13.0)	368 (87.0)
Heart disease	2 (0.5)	14 (3.3)	16 (3.8)	407 (96.2)
Cancer	2 (0.5)	12 (2.8)	14 (3.3)	409 (96.7)
Asthma	3 (0.7)	10 (2.4)	13 (3.1)	408 (96.5)
Kidney disease	1 (0.2)	4 (0.9)	5 (1.2)	418 (98.8)

Combined affirmative categories are descriptive and should not be summed to estimate multimorbidity.

Health Insurance and Functional Health

Table 4 reveals an important contrast between chronic health needs and financial protection. Only 130 respondents (30.7%) were insured, while 293 (69.3%) were classified as uninsured. At the same time, nearly one-third of the population experienced some degree of functional limitation.

No functional difficulty was reported by 67.1%, while 15.8% experienced some difficulty, 9.2% a lot of difficulty and 7.8% complete inability. Combining the latter three categories indicates that 32.9% experienced some form of functional limitation. These figures demonstrate that the long-marriage population should not be characterised as uniformly healthy merely because it represents survivors of enduring relationships.

Table 4: Health Insurance and Functional Health

Dimension	Category	n	%
Health insurance	Uninsured	293	69.3
	Insured	130	30.7
Functional health	No difficulty	284	67.1
	Some difficulty	67	15.8
	A lot of difficulty	39	9.2
	Cannot do at all	33	7.8
Derived summary	No limitation	284	67.1
	Any limitation	139	32.9

Any limitation is derived descriptively from the three functional-limitation categories.

Cancer Profile

Cancer was reported by 14 respondents. The raw cancer-type variable contained multiple spelling and capitalisation variants of prostate cancer. Harmonisation indicates that prostate cancer accounted for 11 of the 14 cancer reports, breast cancer for two and cervical cancer for one.

The number of cancer cases is small and does not support extensive inferential analysis by subtype. Nevertheless, the pattern explains why the descriptive cancer burden was higher among men in later sex-based analysis. The harmonisation should be treated as data cleaning rather than as a new clinical classification.

Table 5: Harmonised Cancer Types among Respondents Reporting Cancer (n=14)

Cancer type	n	%
Prostate cancer	11	78.6
Breast cancer	2	14.3
Cervical cancer	1	7.1
Total	14	100.0

Cancer labels were harmonised from spelling and capitalisation variants in the source output.

Chronic Conditions by Sex

Table 6 indicates that women descriptively reported more diabetes, hypertension and arthritis than men. Combined diabetes history was 21.0% among women versus 14.4% among men, hypertension was 47.7% versus 36.8%, and arthritis was 16.3% versus 9.6%. None of the corresponding Pearson tests reached $P<0.05$, although hypertension ($P=0.078$) and arthritis ($P=0.099$) approached conventional significance.

Cancer showed the opposite pattern, affecting 5.3% of men and 1.4% of women; however, the Pearson association also failed to meet the conventional threshold ($P=0.069$). The principal interpretation is not that men and women have statistically different disease distributions but that several potentially meaningful descriptive patterns exist. Larger samples or binary recoding of chronic-disease categories may provide greater statistical power.

Table 6: Selected Chronic Conditions by Sex

Condition	Male n (%)	Female n (%)	Total n (%)	χ^2	df	P	V
Asthma	4 (1.9)	9 (4.2)	13 (3.1)	3.341	3	0.342	0.089
Diabetes	30 (14.4)	45 (21.0)	75 (17.7)	3.280	2	0.194	0.088
Hypertension	77 (36.8)	102 (47.7)	179 (42.3)	5.098	2	0.078	0.110
Arthritis	20 (9.6)	35 (16.3)	55 (13.0)	4.621	2	0.099	0.105
Heart disease	9 (4.3)	7 (3.3)	16 (3.8)	2.062	2	0.357	0.070
Sickle cell	0 (0.0)	4 (1.9)	4 (0.9)	3.944	2	0.139	0.097
Depression	0 (0.0)	2 (0.9)	2 (0.5)	2.979	2	0.225	0.084
Dementia	2 (1.0)	2 (0.9)	4 (0.9)	4.001	2	0.135	0.097
Cancer	11 (5.3)	3 (1.4)	14 (3.3)	5.355	2	0.069	0.113
Kidney disease	3 (1.4)	2 (0.9)	5 (1.2)	1.027	2	0.598	0.049

Descriptive percentages combine affirmative disease-history categories; inferential tests use the original SPSS response categories.

Chronic Conditions by Age

Age produced much stronger morbidity patterns than sex. Hypertension increased from 24.0% among respondents aged 45–59 years to 49.5% at ages 60–74 and 63.8% at ages ≥75 years. The age-hypertension association was statistically significant (χ^2=41.287, df=6, P<0.001; V=0.221). Arthritis similarly increased from 4.7% to 16.3% and 23.2% across the same age groups and was significantly associated with age (χ^2=21.729, df=6, P=0.001; V=.160).

Heart disease and cancer also produced significant Pearson statistics, but these findings require greater caution because numerous expected frequencies were below five. Diabetes displayed a descriptive increase to 27.5% among respondents aged ≥75 years, although its overall Pearson association was marginal (P=0.065). The most statistically defensible age findings are those for hypertension, arthritis and functional health.

Table 7: Selected Chronic Conditions by Age Cohort

Condition	25-44 n=8	45-59 n=150	60-74 n=196	≥75 n=69	χ^2	df	P	V
Asthma	0 (0.0)	5 (3.3)	7 (3.6)	1 (1.4)	5.149	9	0.821	0.064
Diabetes	2 (25.0)	19 (12.7)	35 (17.9)	19 (27.5)	11.868	6	0.065	0.118
Hypertension	2 (25.0)	36 (24.0)	97 (49.5)	44 (63.8)	41.287	6	<0.001	0.221
Arthritis	0 (0.0)	7 (4.7)	32 (16.3)	16 (23.2)	21.729	6	0.001	0.160
Heart disease	0	1 (0.7)	8 (4.1)	7 (10.1)	15.979	6	0.014	0.137
Cancer	0	3 (2.0)	5 (2.6)	6 (8.7)	13.300	6	0.039	0.125
Kidney disease	0	0	2 (1.0)	3 (4.3)	11.584	6	0.072	0.117

The 25-44 subgroup is very small. Rare-condition Pearson tests contain sparse expected cells and should be interpreted cautiously.

Functional Health by Sex

Functional health was not significantly associated with sex. No difficulty was reported by 68.4% of men and 65.9% of women. When the limitation categories were combined descriptively, 31.6% of men and 34.1% of women experienced some limitation.

The Pearson test produced χ^2=3.290, df=3, P=0.349 and Cramer's V=0.088. There is little evidence that sex independently structures functional status within this selected long-marriage sample. This finding contrasts sharply with the age analysis presented next.

Table 8: Functional Health by Sex

Functional status	Male n (%)	Female n (%)	Total n (%)
No difficulty	143 (68.4)	141 (65.9)	284 (67.1)
Some difficulty	29 (13.9)	38 (17.8)	67 (15.8)
A lot of difficulty	17 (8.1)	22 (10.3)	39 (9.2)
Cannot do at all	20 (9.6)	13 (6.1)	33 (7.8)
Any limitation	66 (31.6)	73 (34.1)	139 (32.9)

χ^2=3.290; df=3; P=.349; Cramer's V=.088.

Functional Health by Age

Age produced the strongest health association in the study. All respondents aged 25–44 years reported no difficulty, compared with 85.3% of those aged 45–59 years, 64.3% of those aged 60–74 years and only 31.9% among respondents aged ≥75 years. Complete inability increased to 26.1% among the oldest respondents.

Any functional limitation increased from 14.7% among respondents aged 45–59 years to 35.7% among those aged 60–74 and 68.1% among people aged ≥75 years. The overall association was highly significant (χ^2=80.038, df=9, P<0.001; V=0.251). This is the most important statistical finding for resolving the study's research gap: the health profile of people in long marriages is strongly structured by ageing.

Table 9: Functional Health by Age Cohort

Functional status	25-44 n=8	45-59 n=150	60-74 n=196	≥75 n=69	Total
No difficulty	8 (100.0)	128 (85.3)	126 (64.3)	22 (31.9)	284 (67.1)
Some difficulty	0	14 (9.3)	35 (17.9)	18 (26.1)	67 (15.8)
A lot of difficulty	0	6 (4.0)	22 (11.2)	11 (15.9)	39 (9.2)
Cannot do at all	0	2 (1.3)	13 (6.6)	18 (26.1)	33 (7.8)
Any limitation	0 (0.0)	22 (14.7)	70 (35.7)	47 (68.1)	139 (32.9)

χ^2=80.038; df=9; P<.001; Cramer's V=.251.

Discussion

Principal Findings and Resolution of the Research Gap

The present study was designed to address the absence of contemporary Jamaican evidence describing the health status of individuals who had accumulated at least 20 years of marriage. This research gap is important because most Jamaican and international studies have traditionally compared married individuals with unmarried, divorced, separated or widowed populations rather than examining variation within long-duration marriages. The findings demonstrate that people in enduring marriages cannot meaningfully be classified simply as "healthy because married" or "unhealthy because older". Instead, the analytical population represents an age-selected group characterised by substantial socioeconomic diversity, a considerable non-communicable disease burden and pronounced age-related deterioration in functional health. The predominance of middle-aged and older adults within the sample means that age-related biological processes and cumulative exposures are central to understanding the observed health profile. Consequently, the findings require an interpretation that simultaneously considers marital duration, ageing, chronic disease, socioeconomic resources and functional capacity rather than attributing health outcomes solely to marriage.

Three principal findings provide direct answers to the central research questions and clarify the contribution of the study. First, hypertension, diabetes and arthritis emerged as the dominant chronic conditions within the analytical population, indicating a strong concentration of cardiovascular, metabolic and musculoskeletal morbidity. Second, differences between men and women were largely descriptive and did not reach conventional levels of statistical significance for the principal chronic conditions examined. Third, age demonstrated substantially stronger statistical relationships with health outcomes, hypertension, arthritis and functional limitation. The contrast between relatively weak sex associations and stronger age associations suggests that biological ageing and cumulative exposure may exert greater influence on health within enduring marriages than sex alone. This pattern is especially important because prolonged marital duration is intrinsically related to age, making it inappropriate to interpret morbidity without considering the demographic selection inherent in the sample. The results shift the analytical emphasis from marriage as a simple social status towards the interaction of marriage duration with ageing and accumulated health risks.

This distinction is fundamental to the research gap identified at the outset of the study. Much of the international marriage-health literature compares married people with those who are unmarried and tends to emphasise the apparent protective or harmful influence of marriage itself [1-3]. Such an approach may obscure substantial health heterogeneity within the married population, among people who have remained married for several decades. The present study demonstrates that individuals who have all been married for at least 20 years may nevertheless possess very different health profiles depending on whether they are in middle age, early old age or advanced old age. A 50-year-old respondent who has been married for two decades is situated at a very different point in life course from an 80-year-old respondent with a similarly enduring marital history. Consequently, the study resolves an important aspect of the research gap by showing that duration of marriage cannot be analytically separated from age-related differences in chronic morbidity and functional capacity.

Comparison with Jamaica

The prominence of hypertension in the present study is consistent with earlier Jamaican research documenting a substantial cardiovascular and metabolic disease burden among adults and older people. Bourne and McGrowder identified hypertension and diabetes as important chronic conditions affecting the health status of Jamaicans reporting long-term illnesses. Research among urban Jamaican adults similarly demonstrated that cardiovascular health is patterned by socioeconomic characteristics such as education, household assets and community circumstances [4-6]. These earlier findings provide an important national context for interpreting the current observation that 42.3% of respondents reported a history of hypertension. The consistency across studies suggests that hypertension remains a major public-health concern in Jamaica and that its burden becomes visible in middle-aged and older populations. The present study extends existing Jamaican evidence by demonstrating that hypertension also constitutes the dominant chronic condition among individuals who have remained married for at least two decades.

The observed hypertension figure of 42.3% should not, however, be interpreted as a national prevalence estimate for all married Jamaicans. The analytical population is heavily concentrated among older adults, with the overwhelming majority aged 45 years and older, and the supplied analysis was unweighted. These features increase the likelihood that the observed level of hypertension reflects the age structure of the selected sample rather than the prevalence of hypertension among the national married population. Nevertheless, the magnitude remains epidemiologically plausible because previous Jamaican research among people aged 75 years and older reported substantial levels of hypertension and other chronic diseases [4-6]. The present results fit a broader Jamaican pattern in which cardiovascular morbidity becomes increasingly important with advancing age. This interpretation is strengthened by the current finding that hypertension increased from 24.0% among respondents aged 45–59 years to 63.8% among those aged 75 years and older.

Earlier Jamaican research comparing married and unmarried men also provides an important historical point of reference. That research demonstrated relationships between marital status, self-rated health and selected health conditions, suggesting that marriage may be an important social correlate of health among Jamaican

men [4-6]. The present study extends this national literature by examining both men and women and by focusing specifically on respondents who had been married for at least 20 years. It also advances previous work by distinguishing respondents according to age and functional-health status rather than treating marriage as a single homogeneous category. The absence of statistically significant sex differences in hypertension, diabetes, arthritis and functional health suggests that age may become increasingly influential once analyses are restricted to individuals in enduring marriages. This result does not contradict earlier Jamaican research but instead adds a more nuanced understanding of heterogeneity among married adults across the later stages of the life course.

Caribbean Comparison

The patterns of hypertension and diabetes identified in Jamaica are consistent with the broader non-communicable disease transition occurring throughout the Caribbean. Research from Barbados has demonstrated that hypertension, diabetes and associated cardiovascular risks are socially patterned and vary according to sex, education, occupation and socioeconomic circumstances. Studies of older adults across Caribbean and Latin American settings likewise indicate that chronic diseases make substantial contributions to disability and limitations in activities of daily living [10-12]. The Jamaican findings fit within a wider regional context in which longer life expectancy is increasingly accompanied by chronic morbidity and functional impairment. This epidemiological transition creates growing demand not only for disease treatment but also for rehabilitation, long-term care and social support. The current study contributes to that regional evidence by demonstrating how these processes operate within the specific context of enduring marriage.

The functional-health gradient identified in Jamaica is striking when considered within this regional perspective. Only 14.7% of respondents aged 45–59 years experienced some form of functional limitation, compared with 68.1% among those aged 75 years and older. Caribbean and Latin American research has similarly identified obesity, chronic disease and advanced age as important pathways to declining mobility and everyday functioning [10-12]. The Jamaican pattern appears consistent with a broader regional process in which surviving to older ages increases the probability of living with functional limitations. These limitations have consequences not only for individuals but also for spouses and households because assistance with transportation, medication management, personal care and daily activities may increasingly be provided within the family. Long-duration marriages may operate as important caregiving environments in later life, even though the present JSLC analysis does not directly measure caregiving. Regional comparison also underscores the importance of socioeconomic inequality. Caribbean NCDs are not distributed randomly but are shaped by educational attainment, household resources, occupational histories and access to healthcare [10-12]. In the present study, more than one-third of respondents were classified in the poor socioeconomic group despite the concentration of respondents in long-duration marriages. This finding indicates that enduring marriage does not necessarily imply long-term financial security or protection from the social determinants of chronic disease. The coexistence of chronic morbidity, ageing and poverty may create substantial health vulnerability among some long-married couples. Future Caribbean research should investigate whether the health consequences of long-duration marriage differ according to wealth, educational attainment and access to healthcare resources.

Latin American Comparison

Latin American evidence reinforces the importance of examining socioeconomic and gender differences rather than treating non-communicable disease exposure as homogeneous across populations. Coelho and colleagues identified substantial gender differences in the relationship between socioeconomic conditions and hypertension across 230 Latin American cities. Chilean research has likewise demonstrated that marital status, living arrangements and mortality interact with demographic, socioeconomic and health characteristics among older adults [10-12]. These findings suggest that marital status cannot be interpreted independently of broader structural and life-course conditions. The current Jamaican results are consistent with this perspective because health differences within the long-married population were more strongly associated with age than with sex. The international comparison strengthens the interpretation that marriage operates within rather than outside broader systems of socioeconomic and demographic inequality.

The female-male difference in hypertension observed in Jamaica is also relevant to the Latin American literature. Hypertension was reported by 47.7% of women compared with 36.8% of men, although the difference did not reach the conventional threshold for statistical significance. This direction of difference is broadly consistent with research demonstrating gendered cardiovascular risk and gender-specific relationships between socioeconomic status and hypertension across Latin American urban settings. The relatively small Jamaican analytical sample and the retention of multiple original disease-response categories may have reduced statistical power to detect sex differences. A binary recoding of hypertension combined with multivariable regression could provide a more powerful assessment of whether sex remains independently associated with hypertension after adjustment for age, wealth and education. Such an analysis would help determine whether the descriptive female excess reflects demographic composition or a more substantive gender difference in cardiovascular risk.

The Chilean evidence is additionally instructive because it demonstrates why marriage should not be examined independently of living arrangements and ageing [10-12]. A person who remains married into advanced old age differs substantially from a younger married adult in terms of biological exposure time, employment history, retirement, caregiving responsibilities and probability of accumulated chronic illness. Older couples may also experience changes in household roles as one spouse develops functional limitations or becomes dependent on the other for support. These processes illustrate why marriage duration may become intertwined with health rather than functioning as an isolated independent exposure. The Jamaican findings support a life-course interpretation in which ageing, relationship duration and chronic disease develop concurrently. Future comparative analyses should incorporate marital duration, living arrangements and age simultaneously rather than relying on marital status alone.

North American Comparison

The findings have several important parallels with North American research on couple health. Stimpson and Peek reported spousal concordance in hypertension, diabetes, arthritis and cancer among older Mexican-American couples [7-9]. These conditions are notably similar to the principal chronic illnesses identified in the Jamaican long-marriage population. Such parallels suggest that shared household environments and mutually influenced health behaviours may contribute to chronic-disease patterns among couples who have lived together for prolonged periods. Long-term partners may eat similar foods, experience comparable

neighbourhood exposures, adopt related physical-activity patterns and influence each other's use of healthcare. Although the current JSLC output cannot test spousal concordance directly, the North American evidence provides an important conceptual basis for future Jamaican dyadic studies.

The potential mechanism underlying spousal concordance involves prolonged exposure to shared social and physical environments. Married partners frequently share diets, household income, housing conditions, neighbourhood characteristics and everyday routines that can affect chronic-disease risk. However, the present analysis treats respondents as individuals and does not establish whether both spouses in each marriage appear in the analytical dataset. Consequently, it would be inappropriate to infer directly that one spouse's health condition predicts the condition of the other from these data. Future Jamaican research should link married partners within households where possible and determine whether hypertension, diabetes, arthritis and functional limitations cluster within couples. Such an approach would provide a more direct test of whether shared marital environments contribute to disease concordance in Jamaica.

North American research further demonstrates that deteriorating health may influence marital relationships rather than marriage operating only as a determinant of health. Tracy and Utz reported that marital quality could decline as health worsened, when partners became increasingly dissimilar in their health status. Chen and colleagues similarly found associations between marital relationship characteristics and sleep among older adults [7-9]. These findings support a reciprocal conceptual model in which marriage influences health while illness, disability and caregiving demands simultaneously reshape marital life. The present Jamaican study is consistent with such a framework because substantial chronic morbidity and functional limitation were observed among respondents in enduring marriages. Future Jamaican studies should incorporate marital quality, caregiving burden and partner health rather than assuming that marital duration alone captures the social dimensions of marriage.

African Comparison

African evidence provides an especially informative comparison because Jamaica and many African societies are experiencing population ageing alongside a growing burden of non-communicable diseases. Ghanaian research among adults aged 50 years and older documented substantial levels of hypertension and osteoarthritis together with meaningful demographic and socioeconomic patterning. South African evidence has similarly demonstrated significant age-related deterioration in physical functioning, while research from Malawi has highlighted the health implications of marital transitions in later life [13-15]. These findings demonstrate that ageing, chronic disease and family structures interact strongly in settings undergoing epidemiological transition. The Jamaican data reveal comparable patterns, in the concentration of hypertension, arthritis and functional limitation among older respondents. Such similarities suggest that family-health policy in middle-income and developing societies must increasingly address the combined challenges of ageing and chronic disease.

The Jamaican findings resemble the African evidence most clearly in the pronounced age gradients observed across major health indicators. Hypertension reached 63.8% among respondents aged 75 years and older, arthritis reached 23.2%, and functional limitation reached 68.1%. These figures indicate substantial accumulation of morbidity and loss of functional capacity in advanced old age. Similar age-related patterns in Ghana and South Africa suggest that the Jamaican experience is part of a broader epidemiological process rather than a phenomenon unique to the Caribbean [13-15]. The convergence of findings across these settings reinforces the importance of strengthening geriatric care, chronic-disease management and community-based support systems. Ageing should become a more explicit component of Jamaican family-health policy, for households in which older spouses may be providing care to each other.

The comparison with Malawi also draws attention to an important selection issue in the present study. Respondents who remained married for at least 20 years represent marital survivors, while people whose marriages ended through divorce, separation or widowhood before reaching the threshold are necessarily excluded. This means that the observed sample may differ systematically from the broader population of people who initially married. Individuals who remain married may possess different health, financial, behavioural or social characteristics from those whose marriages dissolved [13-15]. The health profile observed in the present study may reflect selective retention within marriage as well as any potential effects of marital support. Longitudinal research following married Jamaicans across marital transitions would be necessary to distinguish these processes.

Europe and Other Nations

European evidence similarly demonstrates that partnerships may be associated with survival and chronic-disease trajectories but that these relationships vary substantially across populations. Zueras and colleagues reported that partnership and living arrangements were associated with mortality differently according to age, sex and welfare-state context. Jang and colleagues found that some older Europeans living with spouses or partners accumulated fewer chronic diseases, but the apparent benefit was weaker or absent among several immigrant populations [2-17]. These results indicate that marriage does not operate as a uniform protective exposure across cultural and social settings. Instead, the health significance of partnership appears to depend on broader institutional, economic and demographic contexts. The Jamaican findings are compatible with this interpretation because substantial morbidity and functional limitation were present despite long marital duration.

These European results also support an important interpretation of the Jamaican evidence: the social meaning and health consequences of marriage are highly context-dependent. Jamaican marriages exist within patterns of extended-family involvement, gender relations, religious traditions, employment histories, pension arrangements and healthcare access. The degree to which spouses pool resources, provide caregiving or regulate each other's health behaviour may differ from comparable processes in Europe or North America. International findings on the so-called health benefits of marriage should consequently not be transferred uncritically to Jamaica. The current study provides a Jamaican-specific empirical contribution by demonstrating substantial health heterogeneity within enduring marriages. More comparative work is required to determine which aspects of long-term partnership are universal and which are shaped by local social institutions.

Age Rather than Sex as the Dominant Stratifier

One of the strongest contributions of this study is the direct empirical comparison between sex and age as correlates of health within enduring marriages. Sex was not significantly associated with functional health, diabetes, hypertension or arthritis, with Cramer's V values ranging from 0.088 to 0.110 for these major

outcomes. In contrast, age was associated with hypertension at V=0.221, arthritis at V=0.160 and functional health at V=0.251. These effect-size differences indicate that age provides greater explanatory discrimination than sex within this analytical population. The pattern is especially important because the study is based on people who have already accumulated at least two decades of marriage. Consequently, age should occupy a central position in interpreting health among long-married Jamaicans.

Functional health provides the clearest illustration of the magnitude of the age gradient. Approximately two-thirds of respondents aged 75 years and older experienced at least some functional difficulty, compared with fewer than one in six respondents aged 45–59 years. This represents more than a fourfold difference in descriptive prevalence between the two age groups. The proportion reporting no difficulty declined from 85.3% among respondents aged 45–59 years to only 31.9% among those aged 75 years and older. Complete inability was also markedly more common among the oldest respondents. These differences demonstrate substantial deterioration in everyday functional capacity across later life. The strength of the association further suggests that functional health may represent one of the most sensitive indicators of ageing within the current population.

The implication of this finding is methodologically and conceptually important. A study restricted to people married for at least 20 years could easily attribute poor health in the sample to prolonged marriage if age were ignored. Such an interpretation would be misleading because longer marital duration is structurally dependent on survival in older ages. Older respondents have had more time to accumulate exposure to hypertension, arthritis, diabetes and other chronic conditions irrespective of marital status. The present findings demonstrate that age is both mathematically and socially entangled with marital duration. Any future attempt to estimate an independent effect of long-term marriage must be carefully controlled for age and preferably employ longitudinal data. The study thus contributes to the literature by clarifying a major confounding process that is often overlooked in simplistic interpretations of marriage and health.

Socioeconomic Position and Insurance

The socioeconomic composition of the analytical population further complicates interpretation of the relationship between marriage duration and health. Almost one-half of respondents were classified as wealthy, while more than one-third were classified as poor and approximately one-fifth belonged to the middle socioeconomic group. Post-secondary education was reported by approximately three-fifths of respondents with valid educational information. Despite this relatively favourable educational distribution, 69.3% of respondents were uninsured. These findings demonstrate that socioeconomic advantage is not uniformly distributed among people in enduring marriages. The substantial proportion of poor and uninsured respondents indicates that long-duration marriage does not eliminate material or healthcare vulnerability.

Marriage may facilitate the pooling of financial and household resources, but prolonged marriage clearly does not guarantee health-insurance protection. This issue is important for respondents living with hypertension, diabetes, arthritis and functional limitations because chronic-disease management often requires repeated clinical consultations, medication, laboratory monitoring and rehabilitation. Older adults with limited insurance protection may face direct out-of-pocket costs that compete with food, housing and other household expenditures. Financial pressures may be especially consequential when both spouses experience chronic illness or declining functional capacity. The current findings suggest that the health consequences of enduring marriage may differ substantially according to household resources and access to financial protection. Future work should examine whether socioeconomic status modifies the relationship between marital duration and health outcomes.

Poor and uninsured older couples may face high financial vulnerability because ageing increases healthcare needs while retirement may reduce household income. The present descriptive analysis does not cross-tabulate health-insurance status with socioeconomic group or specific chronic conditions, so the extent of this vulnerability cannot yet be quantified. Nevertheless, the coexistence of a substantial uninsured population and a considerable NCD burden provides a strong rationale for additional analysis. Cross-tabulations could determine whether poorer respondents are disproportionately uninsured and whether those with hypertension, diabetes or functional limitations possess lower levels of financial protection. Multivariable models could subsequently assess whether insurance coverage remains independently associated with socioeconomic position after adjustment for age and education. Such analyses would strengthen the policy relevance of the current study by identifying groups at greatest risk of unmet healthcare need.

Policy Implications

Several important policy implications emerge from the findings. First, hypertension screening and management should be prioritised among older Jamaican adults because hypertension was the most frequently reported chronic condition and increased sharply with age. Second, functional-health assessments should accompany chronic-disease management, among people aged 60 years and older, because functional limitations increased substantially across later age groups. Third, the large uninsured proportion indicates a need for stronger financial protection for chronic-disease prevention and treatment. Fourth, health interventions should recognise that many older adults live within longstanding marital relationships and may rely heavily on their spouses for practical support and informal caregiving. Fifth, community-based programmes should consider the household rather than the individual as an important unit of intervention. Finally, policies addressing NCDs, ageing and social protection should be coordinated because these issues are strongly interconnected within the study population.

An additional policy implication concerns the potential value of couple-based prevention. Long-married spouses may share diets, physical-activity routines, medication practices and environmental exposures that influence chronic-disease risk. Evidence of spousal concordance from other settings suggests that identification of hypertension or diabetes in one partner may provide an opportunity to screen and counsel the other partner [7-9]. Couple-oriented interventions could include joint nutritional education, physical-activity programmes, blood-pressure screening and medication-adherence support. Such approaches may also increase adherence by converting individual behaviour into a shared household activity. However, the effectiveness of couple-based programmes should be evaluated empirically in Jamaica rather than assumed from international evidence.

Public-health communication should also avoid presenting marriage itself as a medical intervention. The evidence supports the importance of social relationships and possible benefits from emotional, financial and caregiving support, but it simultaneously demonstrates the importance of selection, ageing

and socioeconomic mechanisms [1-3]. Long-lasting marriage may coexist with both favourable and unfavourable health outcomes because spouses continue to experience biological ageing and chronic-disease risks. Public-health messaging should focus on the conditions that promote healthy ageing within relationships rather than implying that relationship status automatically confers protection. Such messaging would be more consistent with the complex evidence identified in the present study. It would also avoid stigmatising individuals who are unmarried, divorced, separated or widowed.

Limitations

The study has several limitations that should be considered when interpreting the findings. First, the cross-sectional design prevents the establishment of temporal sequence between marital duration and health outcomes. It is impossible to determine whether health conditions developed before, during or after the period of marriage measured in the survey. No causal conclusion can be drawn that being married for at least 20 years produced either favourable or unfavourable health outcomes. The observed associations may instead reflect ageing, selection into enduring marriage, socioeconomic conditions or other unmeasured factors. Longitudinal data would be required to distinguish these competing explanations. Consequently, all conclusions should be understood as descriptive and associational rather than causal.

A second limitation concerns the highly age-selected nature of the analytical population. Fully, 98.1% of respondents were aged 45 years or older, while 62.6% were aged 60 years or older. This distribution is partly unavoidable because individuals must survive and remain married long enough to accumulate at least 20 years of marriage. Age and marriage duration are consequently strongly intertwined in the current design. The substantial associations between age, hypertension, arthritis and functional health illustrate the importance of this issue. Without appropriate age adjustment, researchers could mistakenly attribute the consequences of biological ageing to long marital duration. Future studies should model marriage duration and age simultaneously and preferably compare people with different marriage durations within similar age groups.

Third, the study lacks an explicit comparison group of people who had been married for fewer than 20 years, divorced, separated, widowed or never married. The current findings describe health within enduring marriages rather than estimating whether long-duration marriage is healthier or less healthy than alternative marital trajectories. Individuals who remain married for two decades may differ systematically from those whose marriages dissolve or who never marry. These differences may include socioeconomic resources, personality characteristics, health behaviours, social support and pre-existing health status. The absence of comparator groups means that selection effects cannot be separated from possible marriage-related mechanisms. Future research should include multiple marital-status and duration categories to determine whether health differences persist after adjustment for relevant covariates.

Fourth, the supplied analytical output was unweighted. The observed percentages represent the characteristics of the analytical sample and should not automatically be interpreted as weighted national prevalence estimates for all Jamaicans in long-duration marriages. Survey weights may be important because the JSLC uses a complex national sampling design and different households or individuals may have different probabilities of selection. The absence of weighting may influence estimates of chronic-disease prevalence, insurance coverage and socioeconomic distributions. Weighted analyses should be conducted where appropriate in subsequent research. Such analyses would provide stronger population-level estimates and improve comparability with other national studies.

Fifth, the chronic health conditions were based on self-reported information. Self-report may be affected by recall error, diagnostic access and respondents' understanding of their medical conditions. Individuals who use healthcare more frequently may be more likely to know that they have hypertension, diabetes or other chronic diseases than individuals with limited access to healthcare. Consequently, some respondents classified as not having a condition may have undiagnosed disease. This issue is relevant to hypertension because elevated blood pressure frequently remains asymptomatic until detected through screening. Future studies incorporating direct clinical measurements would provide more accurate disease estimates.

Sixth, several disease analyses contained small expected cell frequencies. This was evident for relatively rare outcomes such as heart disease, cancer, epilepsy, dementia and kidney disease. Pearson chi-square tests can become unstable when large proportions of expected cell counts fall below conventional thresholds. Statistically significant results for rare diseases should be interpreted cautiously and should not receive the same inferential emphasis as findings for hypertension or functional health. Fisher's exact tests or appropriately collapsed binary categories may be more suitable for sparse outcomes in future analyses. Larger samples would also improve statistical power and the reliability of estimates for uncommon conditions.

Seventh, the youngest age category contained only eight respondents aged 25–44 years. Percentages calculated for this group are based on a very small denominator and can change substantially with only one or two cases. For example, the presence of two cases of a condition within this subgroup produces a descriptive proportion of 25%, which may appear large despite representing very few individuals. Estimates for the youngest respondents should not be interpreted as stable prevalence measures. Statistical comparisons involving this group should also be treated cautiously. Future analyses may consider combining age categories when theoretically and statistically appropriate.

Eighth, affirmative disease categories were combined descriptively for ease of presentation, whereas the reported Pearson chi-square statistics were based on the original SPSS response categories. This distinction is methodologically important because the descriptive percentages and inferential tests do not represent precisely the same coding structure. The study avoids describing the chi-square tests as tests of the binary combined-history variables. Future analyses could formally recode disease status into binary yes/no indicators and recompute the inferential tests using the recoded variables. Such an approach would simplify interpretation and may improve statistical power for some conditions. Researchers should nonetheless preserve clinically meaningful distinctions where duration of disease is substantively important.

Ninth, the available analysis does not measure marital quality, spousal support, caregiving, relationship satisfaction, conflict or matched-spouse morbidity. These dimensions may be more important to health than marital duration alone because two people can remain married for the same number of years while experiencing very different levels of emotional and practical support. The study also cannot determine whether spouses shared

the same chronic conditions or whether one spouse provided care for the other. These limitations restrict interpretation of the mechanisms through which enduring marriage might influence health. Future studies should collect or analyse measures of relationship quality and household caregiving. Dyadic analysis would be especially valuable for determining whether health risks cluster within couples.

Finally, multivariable statistical models were not included in the supplied output. The current findings are based primarily on descriptive statistics and bivariate tests. Age, sex, socioeconomic position, education, residence and insurance should be analysed simultaneously to determine whether observed associations persist after adjustment for confounding factors. Logistic regression could be applied to binary disease outcomes, while ordinal regression may be appropriate for graded functional-health categories. Interaction terms could also test whether relationships between age and morbidity differ by sex or socioeconomic position. Multivariable and longitudinal analyses would substantially strengthen causal interpretation and provide a more refined understanding of health within enduring Jamaican marriages.

Conclusion

This study addresses an important gap in Jamaican family-health and public-health research by providing a multidimensional examination of people who had remained married for at least 20 years using data from the 2023 Jamaica Survey of Living Conditions. Earlier Jamaican studies established relationships between marital status, chronic illness and health outcomes, but they did not specifically examine the combined morbidity, functional health, insurance, socioeconomic, sex and age profile of a long-marriage population [4-6]. The present investigation extends national scholarship beyond a binary married-versus-unmarried framework. It demonstrates substantial heterogeneity within enduring marriages and shows that long-married adults cannot be treated as a single homogeneous health category. This contribution directly addresses the research gap identified in the Introduction and provides a foundation for more sophisticated analyses of marital duration and health in Jamaica.

The principal conclusion is that age, rather than sex, represents the dominant demographic correlate of health within this analytical population. Sex was not significantly associated with diabetes, hypertension, arthritis or functional health using the reported Pearson tests. Age, however, was strongly associated with hypertension, arthritis and especially functional limitation. Hypertension increased to 63.8% among respondents aged 75 years and older, while any functional limitation reached 68.1% in the same age category. These patterns demonstrate a substantial accumulation of disease and functional vulnerability across later life. The results show that health differences within enduring marriages are more clearly structured by age than by sex in the present sample.

This finding directly resolves the central research gap by demonstrating that the health status of Jamaicans who remain married for two decades cannot reasonably be interpreted without considering the powerful age selection inherent in long marital duration. An apparently high burden of morbidity is not evidence that prolonged marriage is harmful because the population is predominantly middle-aged and older. Conversely, the relatively high proportion of respondents reporting no functional difficulty cannot be taken as evidence that marriage is independently protective. Both favourable and unfavourable health patterns may reflect selective survival, socioeconomic conditions, healthcare access and biological ageing. Marriage duration should be regarded as one component of a broader life-course context rather than an isolated exposure. Future studies that control explicitly for age will be essential for estimating any independent relationship between marriage duration and health.

The study also demonstrates important health-system implications. Hypertension affected 42.3% of respondents, diabetes 17.7% and arthritis 13.0%, indicating that chronic diseases constitute a substantial health burden within this selected population. Almost one-third experienced some form of functional limitation, suggesting that morbidity frequently extends beyond diagnosis to affect every day physical capacity. At the same time, more than two-thirds of respondents were uninsured, raising concerns regarding financial protection for long-term disease management. Long-duration marriage does not eliminate chronic health or financial vulnerability. Public-health and social-protection programmes should recognise that many older married adults may simultaneously face chronic disease, disability risk and limited insurance coverage.

International evidence from the Caribbean, Latin America, North America, Africa and Europe supports the conclusion that marital relationships, living arrangements, socioeconomic circumstances, sex and age interact rather than operate independently [7-15]. Research across these regions demonstrates that the apparent relationship between marriage and health differs according to population structure, cultural context and access to social resources [2-17]. The Jamaican results add an important small-island developing-state perspective to this international literature. They demonstrate that long-term marriage exists within the same broader epidemiological forces of ageing and non-communicable disease observed elsewhere. The study contributes both nationally and comparatively by showing that enduring marriage should be analysed as a social context within which other health determinants operate.

Future Jamaican research should compare individuals in long-duration marriages with people in shorter-duration marriages and with divorced, separated, widowed and never-married populations. Survey weights should be incorporated where methodologically appropriate to improve population-level estimates. Chronic-disease variables should be recoded where necessary, and formal multimorbidity indices should be constructed to identify respondents living with two or more conditions simultaneously. Spouses should be linked into dyads where the household data permit so that concordance in hypertension, diabetes, arthritis and functional limitation can be investigated directly. Measures of marital quality, caregiving, financial strain and relationship satisfaction should also be incorporated because duration alone cannot capture the lived experience of marriage. Longitudinal and multivariable models would ultimately provide the strongest basis for distinguishing the effects of ageing, health selection, socioeconomic advantage and marital exposure.

The totality of the evidence supports neither the simplistic conclusion that "marriage is healthy" nor the contrary claim that "long marriage produces illness". Instead, enduring marriage should be understood as a social environment within which biological ageing, chronic-disease accumulation, socioeconomic resources, healthcare access and interpersonal support continue to operate. The present findings demonstrate that substantial morbidity and functional limitation can coexist with long marital duration, in advanced old age. They also suggest that relationships may provide important social and caregiving resources without

eliminating the health risks associated with ageing. The central contribution of the study is its demonstration that heterogeneity within marriage matters as much as comparisons between married and unmarried populations. In the Jamaican context, understanding health among people in enduring marriages requires an integrated life-course perspective that gives attention to ageing, chronic disease, socioeconomic inequality and financial protection.

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