



How demographic and socioeconomic factors influence women's sources of COVID-19 information in Sierra Leone

Frank Baiden MBChD PhD

Associate Professor, London School of Hygiene & Tropical Medicine

Yeama Sarah Thompson MA

Executive Director, Initiatives for Media Development

Fellow, Open Data Partnership

On behalf of the COVID-19 CWC Study Team

Background

- COVID-19 continues to cause significant health and social problems globally. Women and children in low and middle-income countries are among the most vulnerable.
- Timely access to complete and accurate information is essential to women's empowerment regarding COVID-19 prevention, care and access to impact-mitigation measures.
- Initiatives for Media Development (IMdev) in partnership with the London School of Hygiene and Tropical Medicine (LSHTM) have been implementing the COVID-19 Women and Children (CWC) panel survey to explore the effect of COVID-19.

Objectives of the COVID-19 CWC study

To explore how COVID-19 and related mitigation measures impact women and children in the following:

- Livelihoods and household incomes
- Maternal health including sexual and gender-based violence, and access to family planning methods
- Access to COVID-19 education messages and exposure to misinformation
- Children's access to radio lessons during lockdowns.

Design (Panel survey with audio-recorded qualitative data)

- Panel of 900 women recruited using *IMdev's* network of 30 partner radio stations and 180 Listener Club Members (LCMs).
- Each LCM facilitated enumeration of 6 women living within their communities with the following characteristics
 - Had a source of livelihood prior to the COVID-19,
 - Had at least one child of primary school-going age,
 - Willing to give signed (thumbprint with witness, if illiterate) informed consent.
- Three rounds of survey at three-monthly intervals were planned
- Phone interviews were conducted by ten all-female trained interviewers
- Data was collected with tablets and uploaded into a secure server.

Data analysis

- Frequencies were run to determine and compare sources of COVID-19 information.
- Principal Component Analysis (based on assets) was used to determine wealth
- Bivariate and multivariate analysis was used to explore how the following influence use of the various sources

- Age
- Marital status
- Religion
- Highest education level
- Number of children
- Region of residence
- Occupation
- Tourism-related livelihood
- Socioeconomic status

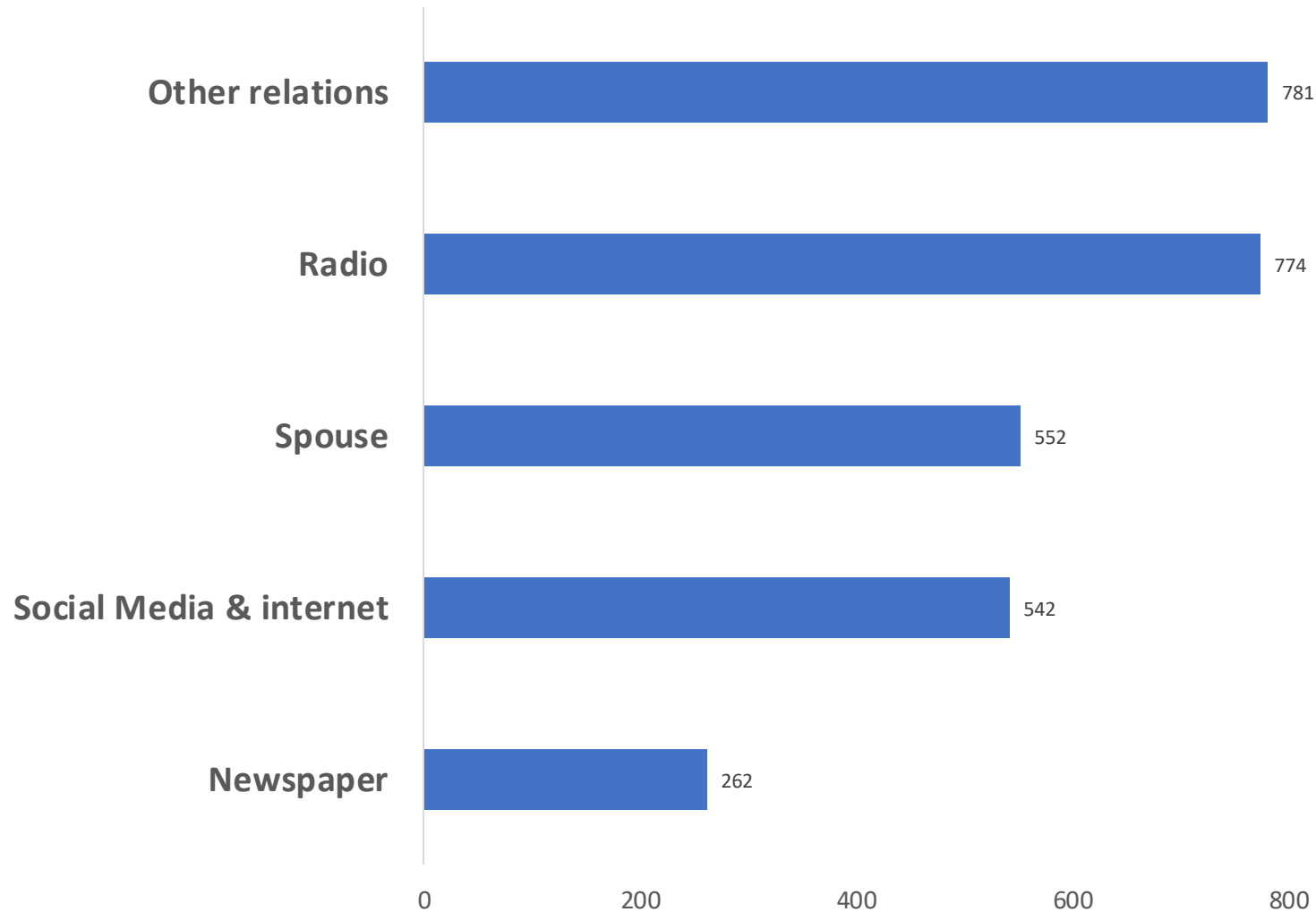
- P-value of <0.02 was used to report statistically significant determinants. Reason: Non-random sample & multiplicity of test.
- Checks for multicollinearity were performed.

Results

Demographic characteristics and socioeconomic status

- **Sample size** in round 1 survey: 880
- **Age** – Average age was 32.3yrs (Standard deviation – 10.8yrs)
- **Marital status:** Married (52.6%), Single/widowed (33.4%) & In-courtship (11.2%)
- **Religion:** Muslim (60.6%), Christian (39.4%)
- **Highest educational level:** Secondary (48.2%), None (24.8%), Primary (12.6%)
- **Number of children:** 1-2 (51.5%), 3-4 (33.4%), >4 (15.1%)
- **Occupation:** Small & Medium Enterprises (62.0%), unemployed (20.8%), salaried workers (8.7%)
- **Tourism-related* livelihood:** Yes (60.5%)

Sources of COVID-19 information for women in Sierra Leone (N=880)



Leading sources were

- Other relations (non-spouse) – 781 (**88.7%**)
- Radio – 774/880 (**87.9%**)
- Spouse – 552/880 (**62.7%**)

Determinants of *other relations (non-spouse)* as source of COVID-19 information

Explored determinant	P-value	
	Unadjusted	Adjusted
Age	0.83	
Marital status	0.50	
Religion	<0.01	0.01
Highest educational status	0.10	
Number of children	0.96	
Region of residence	0.08	
Occupation	0.19	
Tourism-related livelihood	0.06	
Wealth	0.01	0.74

A woman who is Christian is more likely to have *other relations (non-spouse)* as source of COVID-19 information

Determinants of *radio* as source of COVID-19 information

Explored determinant	P-value	
	Unadjusted	Adjusted
Age	0.93	
Marital status	0.65	
Religion	<0.01	<0.01
Highest educational status	<0.01	<0.01
Number of children	0.32	
Region of residence	<0.01	0.44
Occupation	0.07	
Tourism-related livelihood	0.20	
Wealth	<0.01	<0.01

A woman who is Christian, of higher educational background or middle-class wealthy is more likely to have radio as source of COVID-19 information

Determinants of *partner* as source of COVID-19 information

Explored determinant	P-value	
	Unadjusted	Adjusted
Age	<0.01	0.04
Marital status	<0.01	<0.01
Religion	0.01	0.02
Highest educational status	<0.01	<0.01
Number of children	0.25	
Region of residence	<0.01	0.45
Occupation	0.29	
Tourism-related livelihood	0.76	
Wealth	<0.01	<0.01

A woman who is in relationship (courtship or married), has higher educational background or is wealthy is more likely to have partner as source of COVID-19 information

Determinants of *social media & internet* as source of COVID-19 information

Explored determinant	P-value	
	Unadjusted	Adjusted
Age	0.04	0.95
Marital status	0.03	
Religion	<0.01	0.93
Highest educational status	<0.01	<0.01
Number of children	<0.01	0.38
Region of residence	<0.01	<0.01
Occupation	<0.01	0.71
Tourism-related livelihood	0.02	0.02
Wealth	<0.01	<0.01

A woman with higher educational background, resides in the Western Area District, engaged in a tourism-related job and wealthy is more likely to have social media or internet as source of COVID-19 information

Determinants of *newspaper* as source of COVID-19 information

Explored determinant	P-value	
	Unadjusted	Adjusted
Age	0.63	
Marital status	0.62	
Religion	0.49	
Highest educational status	<0.01	<0.01
Number of children	<0.01	
Region of residence	<0.01	0.70
Occupation	0.05	
Tourism-related livelihood	0.05	
Wealth	0.01	0.05

A woman of higher educational background, fewer children (1-2), residing in the Western Area and North West Regions or rich is more likely to have newspaper as source of COVID-19 information

Summary table of determinants

Characteristics of women	Sources of COVID-19 information				
	Other relations	Spouse	Radio	Social media & internet	Newspaper
Age					
Marital status		X			
Religion	X		X		
Highest Educational Level		X	X	X	X
Number of children					
Region of residence				X	
Occupation					
Tourism-associated livelihood				X	
Wealth		X	X	X	

Limitation

The selection of women was not random. The inferential statistics applied assume random selection of the participants. This is a reason why a conservative statistical *Alpha* (α) of 0.02 was applied.

Discussions and conclusions

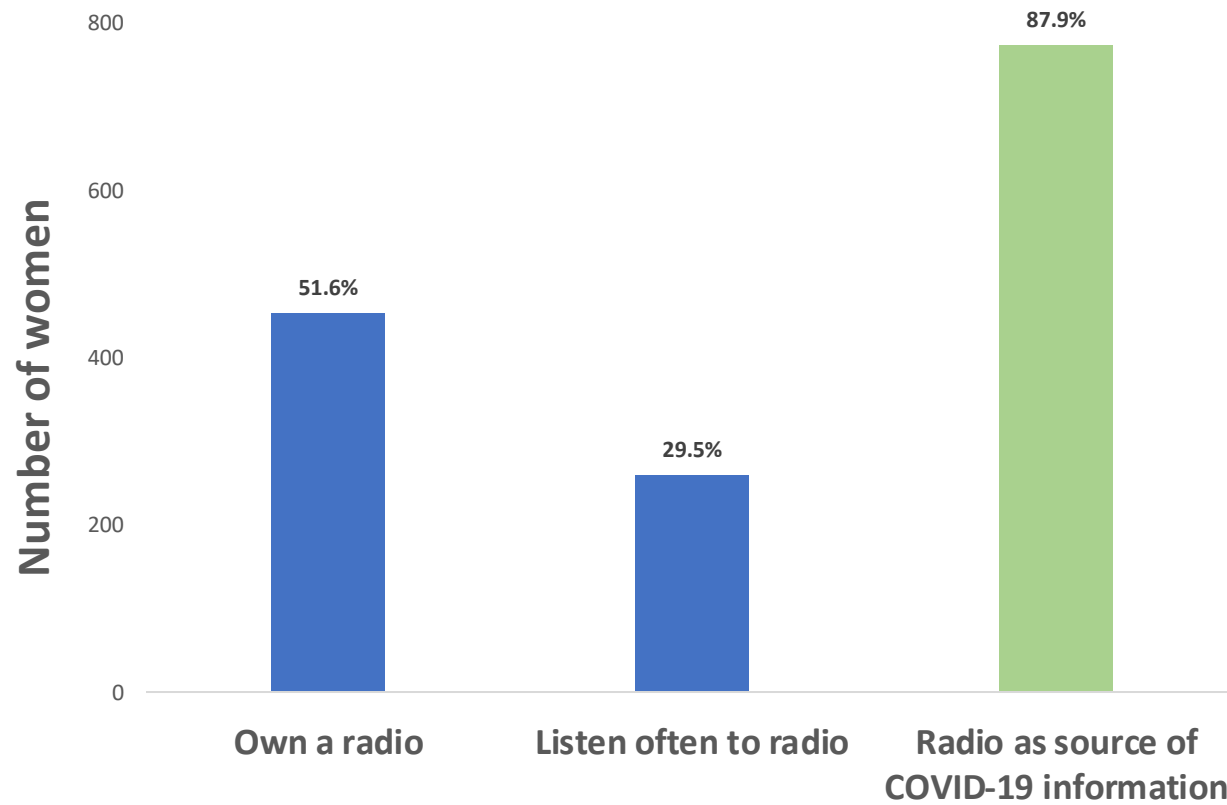
- Other (non-spouse) relations and radio are common sources of COVID-19 information among the women surveyed. Promoting access and use of radio could be an intervention to empower women with accurate and reliable COVID-19 information.
- Educational level and wealth are common determinants of the sources of women's access to COVID-19 information.
- Social media and internet as women's source of COVID-19 information is influenced by the most demographic and socioeconomic factors. Reliance on these should be well-targeted.



Ownership and use of radio by women in Sierra Leone

(Implications for the dissemination of COVID-19 messages)

Results: Radio ownership and use



- 51.6% of women owned a radio
- 29.5% listen to radio *often*
- 87.9% obtain COVID-19 information from Radio

Determinants of radio ownership

Explored determinant	P-value	
Age	0.01	0.06
Marital status	0.64	
Religion	<0.01	0.02
Highest educational status	<0.01	<0.01
Number of children	0.74	
Region of residence	0.01	0.91
Occupation	<0.01	0.61
Tourism-related livelihood	<0.01	<0.01
Wealth	<0.01	<0.01

A woman who is Muslim, of higher educational background, engaged in tourism-related trade or wealthy was more likely to have radio as source of COVID-19 information.

Determinants of *often* listening to radio

Explored determinant	P-value	
	Unadjusted	Adjusted
Age	0.34	
Marital status	0.86	
Religion	0.03	
Highest educational status	<0.01	<0.01
Number of children	0.40	
Region of residence	<0.01	<0.01
Occupation	<0.01	
Tourism-related livelihood	<0.01	<0.01
Wealth	<0.01	<0.01

A woman with higher educational background, residing in the North Region, engaged in tourism-related trade and low in assets wealth is likely to listen often to radio

Summary

- There are low levels of radio ownership and frequent use among the women surveyed
- Despite low level of radio ownership and use, radio is a major source of COVID-19 information. This affirms radio as an important avenue for dissemination of COVID-19 information.
- Educational background, relatedness of occupation to tourism and assets wealth are common determinants of whether a woman listens to radio often or not.
- Targeted interventions are needed to improve radio ownership and use by women in Sierra Leone

Next steps

- Analysis of related qualitative data
- Round 2 of the survey has just started with same set of participants as was in Round 1
- Additional questions have been included in Round 2 to explore the radio listening habits of women

COVID-19 CWC Study Team

Adama Thorlie, MSc – Sociologist and Independent Consultant, Berlin, Germany

Eunice Okyere, PhD – Anthropologist & Assistant Professor, **Fiji National University**

Yeama Sarah Thompson, MA – IMdev xec. Director & Fellow, Open Data Partnership

Frank Baiden, MD PhD – LSHTM

Acknowledgements

The 880 women respondents across the country

Our all-female team of interviewers

UN Women

Statistics Sierra Leone

Ministry of Information and Communications

Gender Desk, Ministry of Tourism and Culture

Ethics & Scientific Review Committee, Ministry of Health & Sanitation

This study was funded with a grant from the Arts and Humanities Council, UK Research and Innovation. Grant Ref AH/V008005/1



**Arts and
Humanities
Research Council**

