

# SOURCES OF HEALTH AND CANCER INFORMATION

by Lilnabeth P. Somera

SESSION: Joining Forces through Social Media

*World Cancer Congress*

*Melbourne, Australia, December 4, 2014*



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# ***Pilot Project : Health Information Trends and Needs in the Pacific: A Test of Respondent-driven Sampling***

This research was supported by a U54 Minority Institution/Cancer Center Partnership Grant from the National Cancer Institute (Numbers: 5U54CA143727 & 5U54CA143728).

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# Background

- Despite improvements in the overall health of the general population, significant health disparities across diverse populations persist.
- Understanding differential dynamics of communication and health behaviors in various cultural contexts is necessary to effectively address health behaviors among diverse
- populations.
- Data on minority and hard-to-reach populations are needed to inform cancer prevention and control program efforts.



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# Specific Aims

- To collect data on cancer information-seeking behaviors as well as basic cancer-relevant knowledge, attitudes, and behaviors among populations in Guam and Hawaii in order to better inform cancer prevention and control program efforts
- To test the efficacy of the respondent-driven sampling (RDS) method (Heckathorn, 2002) in generating valid population estimates and to identify a cost-efficient non-probability sampling strategy that can generate reasonable population estimates for minority and hard-to-reach populations.



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# Method

- Focus group discussions to determine feasibility of using the RDS method, identify cultural factors
- A survey on health communication with the HINTS instrument as the basis
- Inclusion of additional items aimed at identifying cultural factors and communication practices that may influence health behaviors related to cancer risk and prevention in this population.
- Administration of the survey between February and March, 2013.



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# Survey Questionnaire and Measures

- The questionnaire was based on the Health Information National Trends Survey (HINTS) .
- Measures include:
  - How people access and use health information
  - How people use information technology to manage health and health information
  - The degree to which people are engaged in risk/health behaviors.
  - Cultural factors and communication practices that may influence cancer risk and prevention behaviors



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# Respondent Driven Sampling (RDS)

- RDS developed by Douglas Heckathorn in 1997.
- RDS is ideal for sampling “hard-to-reach” or “hidden” populations.
- Peer recruitment in RDS minimizes the issue of violating participant confidentiality during recruitment.
- Dual incentives are used: for participation and recruitment.



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# Features of RDS

Similar to snowball sampling, with some modifications.

- Starts with small initial convenience sample - “seeds”
- Seeds are asked to recruit others – “first wave”
- Respondents are asked to recruit others without identifying them.
- Uses special coupon system to track the recruitment process, i.e., who recruited whom.

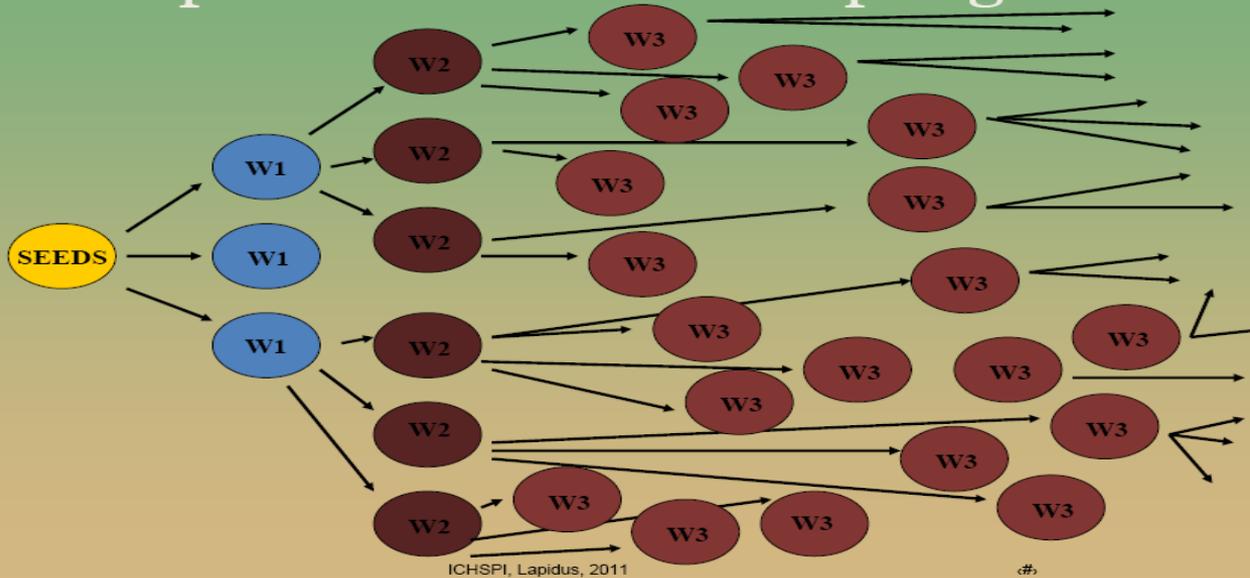


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# Respondent-Driven Sampling



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# RDS Data collection process

- Total number of days of data collection = 23
- N=511
- Limiting factor – research staff

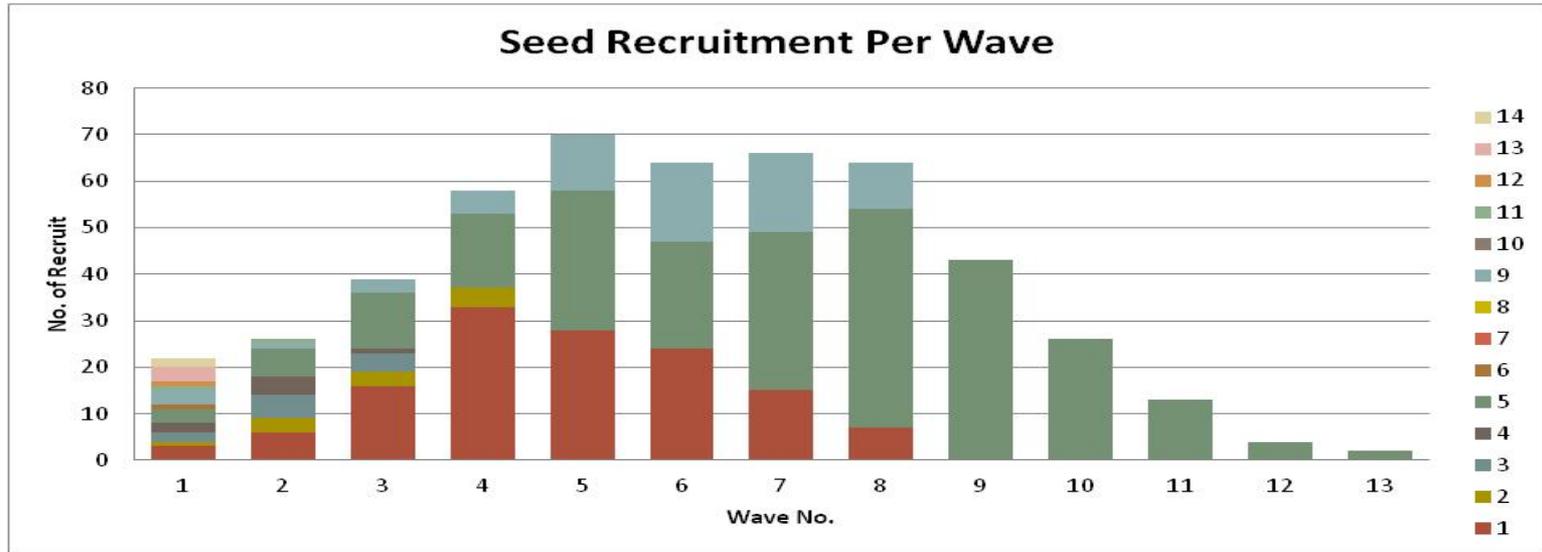


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# RDS results



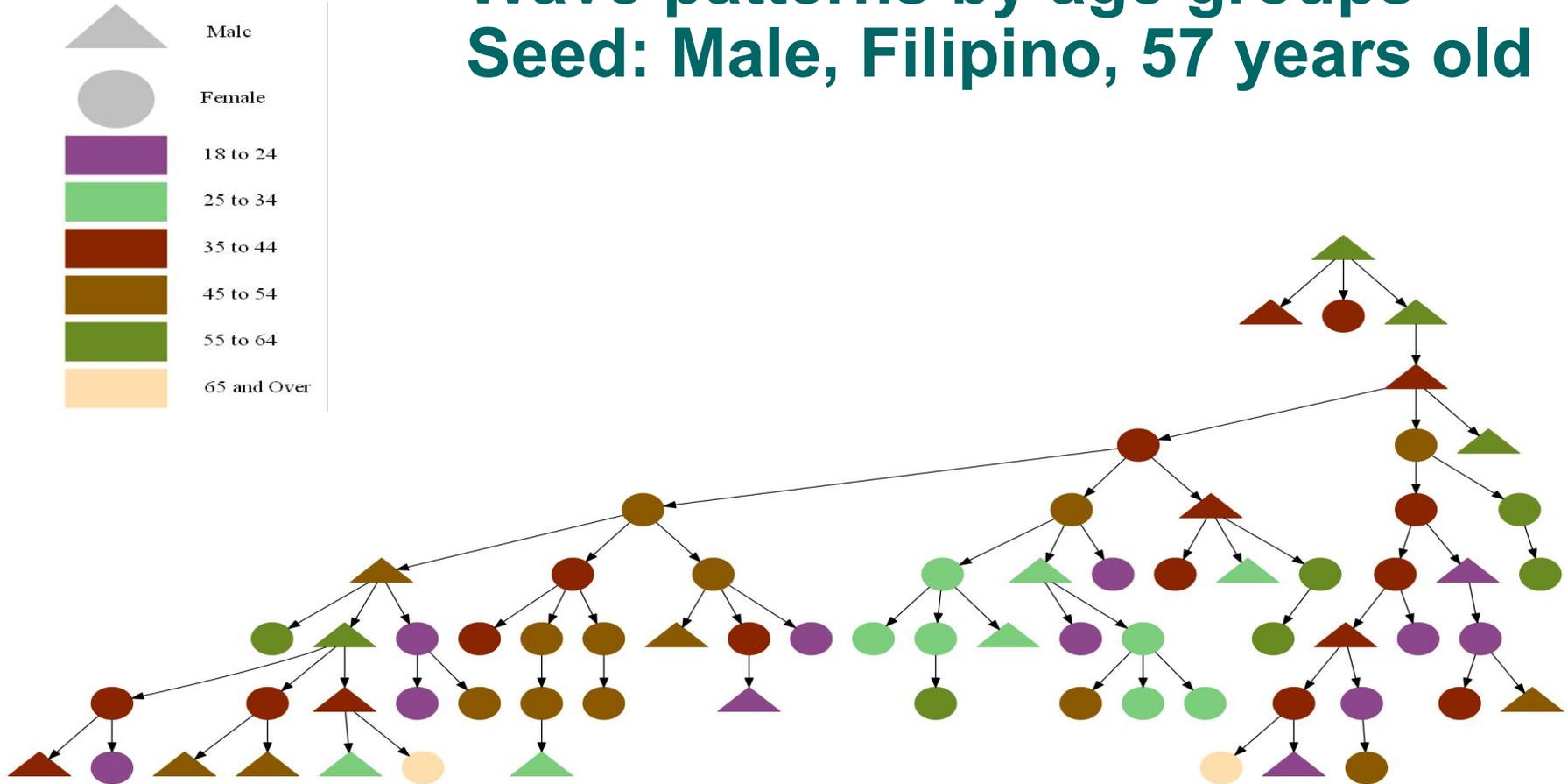
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# Wave patterns by age groups

## Seed: Male, Filipino, 57 years old



# Demographic Comparison

		<b>2010 Census</b>	<b>2012 BRFSS</b>	<b>RDS</b>
Gender	Male	50.96	51.00	43.60
	Female	49.04	49.00	56.40
Age groups	18 to 24	16.62	16.90	49.70
	25 to 34	19.70	19.60	17.20
	35 to 44	21.54	21.50	15.70
	45 to 54	18.94	18.90	10.80
	55 to 64	13.15	13.10	5.50
	65 and over	10.04	10.00	1.20
Ethnicity	Chamorro	35.85	41.10	52.90
	Filipino	29.36	32.10	31.40
	Caucasian	8.26	8.50	2.80
	Asian	7.12	5.60	3.00
	Micronesian	9.77	7.00	7.90
	Other	9.63	3.60	2.00



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# Information-seeking behavior

	GUAM	U.S.
	Weighted % Yes (N)	Weighted % Yes (N)
<i>The most recent time you looked for information about health or medical topics, where did you go first?</i>		
Internet	69.1 (261)	69.6 (1691)
Printed Materials	13.7 (34)	09.8 (372)
Healthcare Provider	11.3 (29)	13.6 (436)
Other	05.9 (26)	06.9 (200)



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# Information sources about health or medical topics – social vs. legacy media

	GUAM	U.S.
	Weighted % Yes (N)	Weighted % Yes (N)
<i>The most recent time you looked for information about health or medical topics, where did you go first?</i>		
Internet	69.1 (261)	69.6 (1691)
Printed Materials	13.7 (34)	09.8 (372)
Healthcare Provider	11.3 (29)	13.6 (436)
Other	05.9 (26)	06.9 (200)
<i>The most recent time you looked for information about health or medical topics, where did you go first?</i>		
Internet	69.1 (261)	69.6 (1691)
Printed Materials	13.7 (34)	09.8 (372)
Healthcare provider	38.2 (163)	52.2 (2023)
Other sources	10.4 (60)	05.4 (210)



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# Health info seeking experience

	Guam			US			<i>T-test</i>
	<i>N</i>	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>	
It took a lot of effort to get the info.	410	2.21	1.3	3103	2.19	1.7	0.3
The search for the info was frustrating.	410	1.94	1.11	3087	2.08	1.98	-2.12*
The quality of the information was a concern.	410	2.74	1.28	3093	2.51	1.53	3.36**
The information was hard to understand.	410	2.06	1.42	3092	2	1.84	0.76
Overall confidence in accessibility of health or medical info if needed	410	3.69	1.28	3931	2.74	1.89	-0.65
* $p < .05$ . ** $p < .001$							



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# Trust in information sources

	Guam			U.S.			<i>T-test</i>
	<i>N</i>	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>	
Healthcare Providers	410	3.6	1.06	3916	3.64	1.04	-0.64
Government Health Agencies	405	3.2	1.1	3776	2.93	1.4	4.59***
Internet	406	3.02	1.1	3707	2.85	1.33	2.89**
Charitable Organizations	405	2.87	1.15	3751	2.37	1.68	7.79***
Family or Friends	408	2.73	0.92	3806	2.62	1.13	2.32*
Newspapers or Magazines	407	2.7	0.89	3781	2.34	1.15	7.61***
Television	408	2.69	0.99	3773	2.26	1.25	8.09***
Religious Organization and Leaders	407	2.53	1.31	3779	2.05	1.45	6.91***
Radio	403	2.4	1.03	3731	2.07	1.51	5.78***

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$



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# Some implications

- many similarities in health information seeking among those who live in Guam and the national U.S. sample in terms of health information seeking behaviors, as well as some interesting differences between the two populations.
- reliance on health care provider as a source for health information is lower in Guam compared to the national population.
- While the levels of health and cancer information seeking for the two samples are comparable, Internet use for the Guam sample is much higher. Geographical isolation for the island community may be a factor.



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- If they had a strong need for medical information, the Guam sample would first turn to the Internet, but healthcare providers are a close second choice.
- There is a sharp contrast with the national HINTS data, which show that the majority would go to a healthcare provider first for an urgent need for health or medical information, followed by the Internet.
- Results suggest that the choice of media could affect the effectiveness of health or cancer information dissemination.



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# Conclusions/next steps

- Analysis of cultural factors which may influence the health information seeking process
- Development of an intervention using mobile health channels, specifically, text messages
- Another study focused on teenagers which incorporates social media in RDS recruitment.
  - HIPPY project
  - Like us on Facebook!



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What have you been up to?

**University of Guam Cancer Research Center HIPPY Project**  
 Posted by Lilinabeth Punsalan Somera (?) · 13 hours ago · Edited

The HIPPY team celebrating our survey's progress at Margarita's with Dr. Beth Somera from UOG and visiting partners, Dr. Kate Lee and Dr. Hye-yeon Lee from University of Hawaii. We're very close to our limit of 400



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*Si yu'us ma'ase!  
Thank you.*



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