

Comparing Dual Phone Type Respondents from Cell Sample vs Landline Sample in Oregon's 2011 Behavioral Risk Factor Surveillance System (BRFSS)




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Presenter Disclosures

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The following personal financial relationships with commercial interests relevant to this presentation existed during the past 12 months:

No relationships to disclose


Goals of this Presentation



- Explain Oregon's dual frame sampling for BRFSS
- Describe differences between dual phone type respondents from landline and cell phone samples
- Discuss pros and cons of including dual phone type respondents from both sampling frames

Introduction

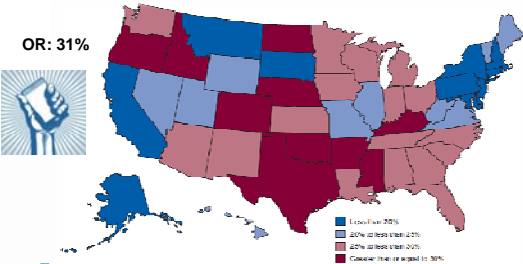
- CDC BRFSS newer protocol: dual frame sampling (landline and cell)
- Cell sample—interview respondents who only have cell phone, no landline
- Limited use of cell sample because:
 - Cost differential: 3:1 cell vs landline
 - Frame Overlap and weighting issues
 - Issues related to cell phones








Why Including a Cell Sample is Important: Cell-only by State, 2010

OR: 31%





From Blumberg SJ, Luke JV, Ganesh N, et al. Wireless substitution: State-level estimates from the National Health Interview Survey, January 2007–June 2010. National health statistics reports: no 39. Hyattsville, MD: National Center for Health Statistics. 2011.

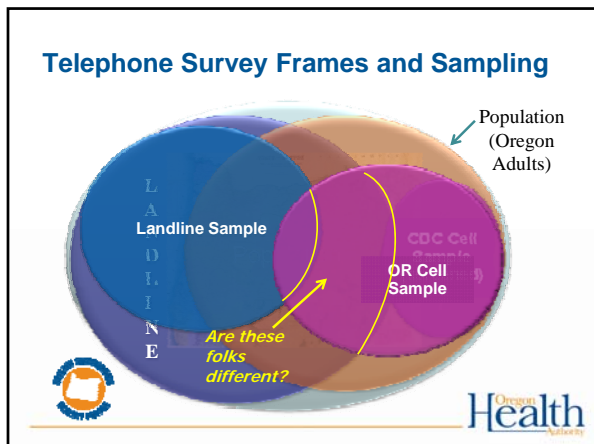



Phone Types, Oregon Adults, July 2009- June 2010

- No phone: 2%
- Landline only: 12%
- Cell only: 31%
- Landline and Cell: 56% have both
 - How most calls are received for those with both:
 - Cell-mostly: 27% of dual
 - Both equally: 32%
 - Landline-mostly: 41%

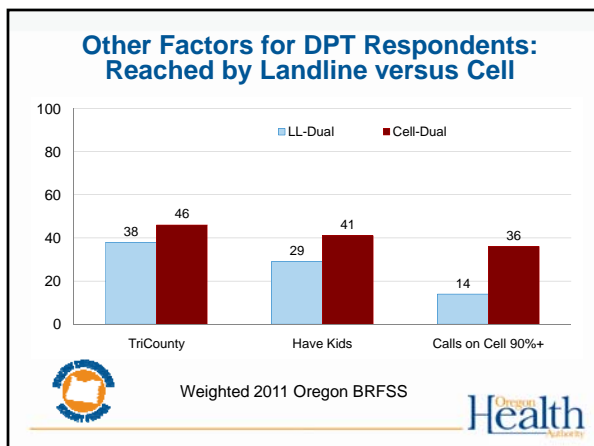
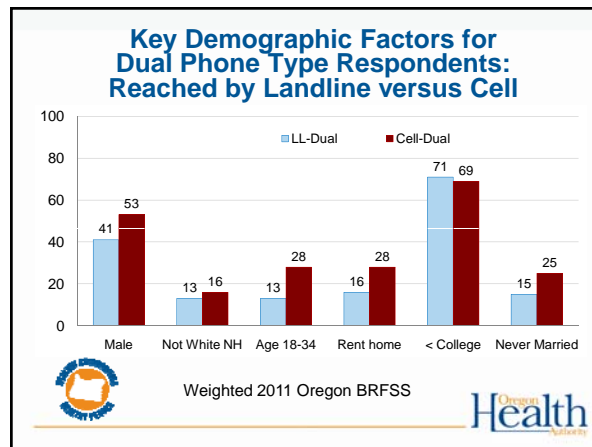
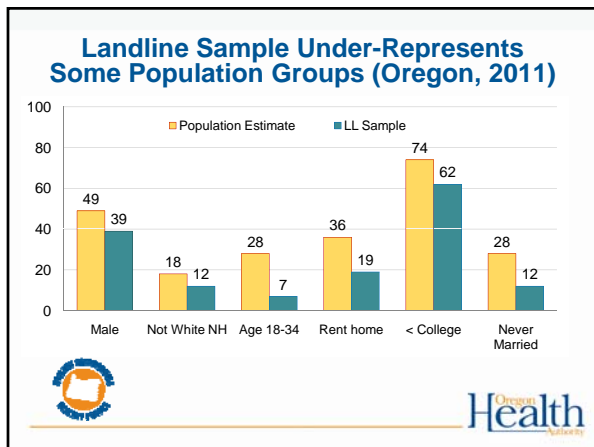
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Oregon's Cell Sample

- In 2011, Oregon interviewed cell-only AND dual phone type respondents in cell sample
- Why?
 - What if dual phone type (DPT) respondents reached by cell phone are different from DPT respondents reached by landline?
 - Concerns that potential bias might not be addressed by weighting factors
 - Lower cost differential



Adjusted Differences between DPT Respondents Reached by Landline versus Cell

- When all factors are taken into account, Dual Phone Type respondents reached by Cell remain different.
 - Logistic models included age, sex, race, education, marital status, and home ownership status.
 - Compared to Landline Duals, Cell Duals are more likely to be male, younger, rent their homes, and have higher education level.

Health Indicators for Dual Phonetype Respondents, Reached by Landline vs Cell

Indicator	LL-Dual N=2,013	Cell-Dual N=956	P-value
Health Status-Fair or Poor	14.9%	14.5%	0.84
Do not have health insurance	8.8%	14.2%	<0.01
Obesity (BMI >=30.0)	26.9%	26.7%	0.94



Weighted 2011 Oregon BRFSS



Summary

- Demographic characteristics were different for DPT respondents reached by cell versus those reached by landline.
- Bivariate estimates of health status and obesity were similar between groups.
- Lack of health insurance was higher among Cell-reached DPT respondents, and this association remained after adjustment for demographics in a logistic model.
(OR=1.4, p=0.07)



Discussion

- Few differences were found in three health outcomes by contact method, but an important next step will be to conduct analyses with other health outcomes.
- Including Cell-reached DPT respondents will help to increase the raw numbers of males and younger adults in the sample.
- We should consider keeping this Cell-reached dual phone type group in our pool of eligible respondents, because Cell-reached dual phone type respondents are less easily reached by landline.



Thanks!



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Additional Slides if needed for Questions



Cell-Mostly: Population Estimate versus Two BRFSS Options (weighted data)

