



Implementation of a Mobile Health Unit for Cancer Screening Patient Satisfaction and Outcome

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Presenter Disclosure

Sandra E Brooks, MD, MBA

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

None

Breast Cancer: high incidence and death rates in KY

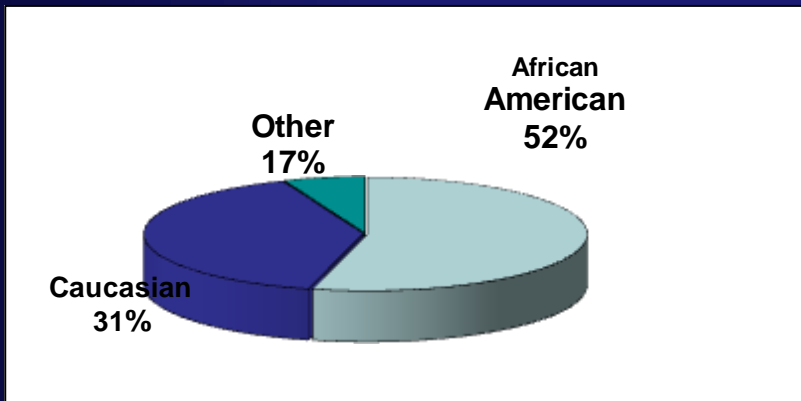


- Breast cancer mortality rate in KY ranks 15th in US
- Jeff Cty BRFSS: mammography rates >70%
 - May over estimate rates for some populations
- *Smigal et al*
 - 50% diagnosed with breast cancer have not had a recent mammogram
 - 33% uninsured at time of diagnosis
- *Addressing the Problem:*
 - Multi modality approach
 - Guide to Community Preventative Services

Methods

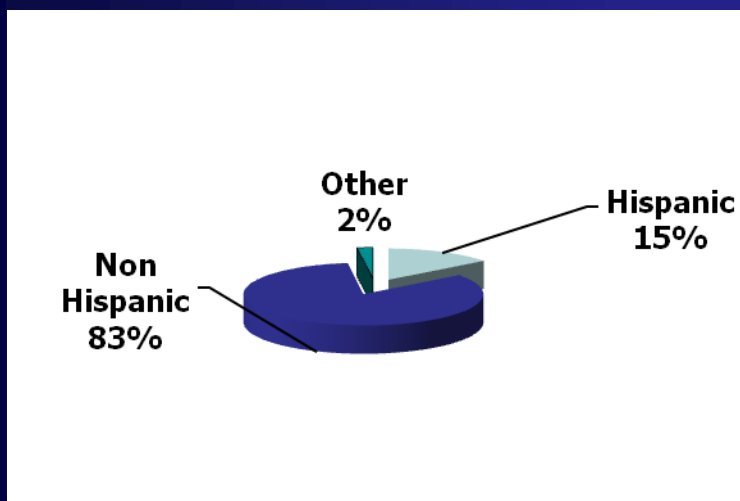
- Retrospective study of women recruited for mammography screening through the Norton Cancer Institute Prevention Program 2008
- Multi modal approach:
 - Low cost/no cost
 - Mobile Unit
 - One on one education
 - Screening linked with follow up
- 980 Women eligible
 - Age >40
 - No screen in at least 1 year
 - Resident of Jefferson County
 - Descriptive statistics, X^2 ,logistic regression to calculate OR

Demographics of Screening Participants



Demographic Data

- Mean age: 54
- 15% Hispanic/Latino
- 50% Uninsured
- 46% Reside in Medically Underserved Communities
- 26% No PCP
- 41% Never or Rarely Screened For Mammography



Comparison of screening history Age, Race and Zip Code of Residence

	No screening (%)	Screened as Recommended (%)	
Age			
40-44	60	40	P<0.0001
45-54	47	53	
55-64	35	65	
Race/Ethnicity			
White	45	55	P<0.0001
African American	36	63	
Hispanic	50	50	
Other	81	19	
Zip and Poverty			P=0.4

Screening History

Family History, Access to PCP and Insurance

	No Screening (%)	Screening as Recommended (%)	
Family History	34	65	P= 0.03
PCP	59	40	P<0.0001
Insurance			
Private Insurance	35	65	P=0.0008
No Insurance	49	51	
Medicaid	41	58	

Logistic Regression Results

Rarely and Never Screened Population

Rarely/Never Screened = 349 Rarely/Never Screened OR (95% C.I.)

Age

40 – 44 Years	4.73 (2.56, 8.62)
45 – 54 Years	2.57 (1.52, 4.35)
55 – 64 Years	1.71 (0.99, 2.98)
65+ Years	REFERENCE

Included in model:

Age

Race

Family History

PCP

Insurance

Site of screening

Family History of Breast Cancer

Yes	0.54 (0.35, 0.84)
No	REFERENCE

Not included:

Poverty level by Zip Code

Primary Care Physician

No	2.31 (1.61, 3.32)
Yes	REFERENCE

Insurance Status

No Insurance	1.06 (0.73, 1.53)
Medicaid, Medicare, Passport	1.43 (0.86, 2.36)
Private Insurance (Including Medicare)	REFERENCE

Abnormal Results and Follow up

- Rate of referral for diagnostic mammography :12%
- Rate of U/S: 5%
- Rate of biopsy: 1.4%
- Invasive cancers: 0.8%
- Rate of follow up : 92%

Predictors of Abnormal Results

Logistic Regression Results Associated with Abnormal Mammography N=83

Abnormal Mammography Result	OR (95% C.I.)
Mammography History	
Rarely/Never Screened	1.97 (1.22, 3.16)
Mammography as Recommended	REFERENCE
Primary Care Physician	
No	1.31 (0.79, 2.16)
Yes	REFERENCE

Variable included model: mammography history , PCP, site , insurance,
Not significant: age, race, zip, Family hx, insurance

Patient Satisfaction

<i>Question</i>	<i>Mean</i>	<i>Std. dev.</i>
Confidence in provider N=974	4.87	0.387
Confidence in Mammography tech	4.9	0.349
Convenience of Hours N=1065	4.86	0.405
Overall rating N= 1061	4.94	0.291
Likelihood of recommending N= 1059	4.92	0.335

Conclusions

- Multi modal approach effective in reaching diverse population
- Targeted approach effective in identifying rarely screened women and women without insurance
 - “other race”, age 40-44 and no pcp
- Women with a family history were more likely to be screened than women without a family history
- Women who were rarely/never screened were more likely to have an abnormal result
- Patient satisfaction high