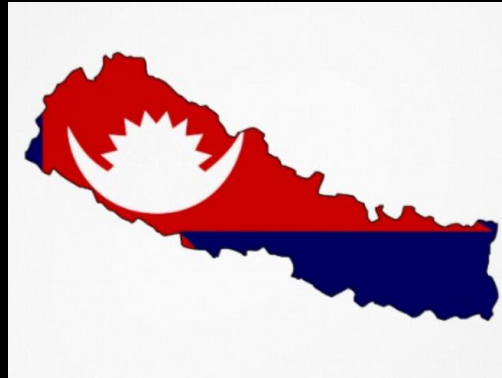


Untreated breast masses: A cross sectional countrywide survey in Nepal



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Nothing to disclose.



Breast Masses: Comprehensive Health Care

- Diagnostic evaluation requires adequate access to healthcare, oftentimes obligating comprehensive, multidisciplinary care
- Etiology of breast masses is vast, including both benign and malignant causes
- A missed diagnosis of breast cancer should never occur in any part of the world

Breast Cancer: A Global Problem



- Breast cancer diagnosis accounts for about 10% of all malignancies detected globally ^{1 2}
- 45% of the more than 1 million incident cases annually and 55% of breast-cancer related deaths occur in low and middle income countries ^{1 2}

Surgeons OverSeas Assessment of Surgical Need (SOSAS)

- The prevalence of breast cancer in developing countries is unknown, however
- Surgeons OverSeas created SOSAS, a population-based survey tool designed to assess a spectrum of general surgical conditions including burns, wounds, masses, deformities, injuries, hernias and breast masses



Surgeons OverSeas Assessment of Surgical Need (SOSAS)

- First section collects demographic data of household members, access to healthcare and death of a household member within the previous year
- Second section selects two household members randomly to undergo a head-to-toe verbal examination ³
- Addition of a visual physical examination in 2014 (excluding groin, genitalia or chest for women); validated SOSAS survey tool



SOSAS in Rwanda and Sierra Leone



- SOSAS was previously executed in Rwanda (2011) and Sierra Leone (2012)
- Overall unmet surgical need of 6.4% (Rwanda) and 25.0% (Sierra Leone) ^{4 5}
- Prevalence of breast masses in women was 4.4% in Rwanda and 3.3% in Sierra Leone ⁶

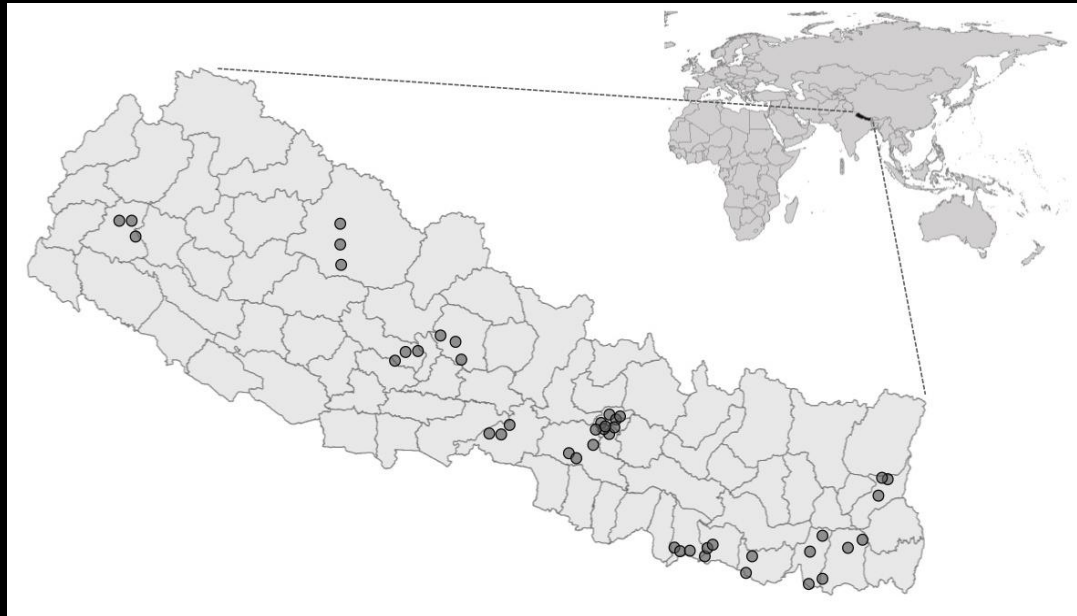
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SOSAS in Nepal

- Countrywide survey was administered in Nepal from May 25th to June 12th 2014



- Two stage sampling was performed:
 - 15 of 75 districts were selected proportional to population
 - In each district, after stratification for rural and urban, 3 clusters were randomly selected (2 rural and 1 urban, DHS methodology)

Results

- A total of 2,695 individuals were surveyed in 1,350 households, with a response rate of 97%
- Overall unmet surgical need calculated was 10.0% (95% CI 8.9% to 11.2%)
- For breast mass analysis, women over 18 were used (n=955)



Key Results

- 15 women over 18 reported a breast mass (1.6%, 95% CI 1.0 – 2.6%)
- Mean age 39.7 (95% CI 32.6 to 46.7)
 - Range 22 – 75
- 53.5% literate
- 46.7% no education
- 60.0% occupation as homemaker

Demographic	N (%)
Mean age	39.67 years (95% CI 32.6 to 46.7)
Education (n=15)	
None	7 (46.67%)
Primary school	4 (26.67%)
Secondary school	3 (20.0%)
Tertiary school	1 (6.67%)
Graduate school	0
	15 (100%)
Literacy (n=15)	
Literate	8 (53.33%)
Illiterate	7 (46.67%)
	15 (100%)
Occupation (n=15)	
None	1 (6.67%)
Homemaker	9 (60.0%)
Domestic helper	0 (0.0%)
Farmer	1 (6.67%)
Government employee	0 (0.0%)
Non-government employee	1 (6.67%)
Self employed	3 (20.0%)
	15 (100%)
Breastfeeding (n=14)	
Yes	1 (7.14%)
No	13 (92.86%)
	14 (100%)
Menstrual cycle last year (n=15)	
Yes	12 (80.0%)
No	3 (20.0%)
	15 (100%)
Timing of breast mass	
< 1 month	4 (26.67%)
1-12 months	3 (20.0%)
> 12 months	8 (53.33%)
	15 (100%)

Access to Healthcare

- Women who did not seek healthcare (n=7)
 - Did not receive surgical care due to the following:
 - Perception of no need (n=2)
 - Fear/no trust (n=5)
- Women who sought healthcare (n=8)
 - 3 had a minor procedure performed
 - 5 did not receive surgical care due to the following:
 - Perception of no need (n=1)
 - Fear/no trust (n=3)
 - Inadequate monetary funds (n=1)



Unmet surgical need for Breast Masses



- Excluding those who did not perceive a need for healthcare, 9 women had an unmet surgical need for a breast mass
- Main reason for barrier to care was fear/no trust (n=8)
- Extrapolations using 2014 population estimates show that potentially 69,900 women aged 25 and above in Nepal have undiagnosed breast masses that may require at least a surgical consultation

Untreated Breast Masses in Nepal

- True prevalence likely exceeds our estimates, which are based on self reported data
- A predominance of early-onset, premenopausal, aggressive, estrogen-receptor-negative disease, in concert with commonly late-stage at diagnosis and increasing prevalence, can potentially increase years of life lost due to breast cancer in Nepal. ^{7 8}



Knowledge of breast cancer

- Overall, Nepali women have many misconceptions regarding breast masses ⁸
 - More than half were unaware of non-lump symptoms and painless nature of breast cancer
 - A third believed or did not know if one can be immune to breast cancer or that traditional healing can cure breast cancer
- Findings parallel results from Rwanda and Sierra Leone
 - Most women with a breast mass did not receive care because no disability from mass
 - 36.8% of women with masses consulted a traditional healer only

Call for improved health systems: Preventative Screening and Comprehensive Care



- Efforts to improve confidence in the Nepali health system are needed so women seek out medical care and benefit from increased awareness, screening, diagnosis and treatment
- Early detection of breast masses should be a primary goal worldwide



Questions?

Thank you!

