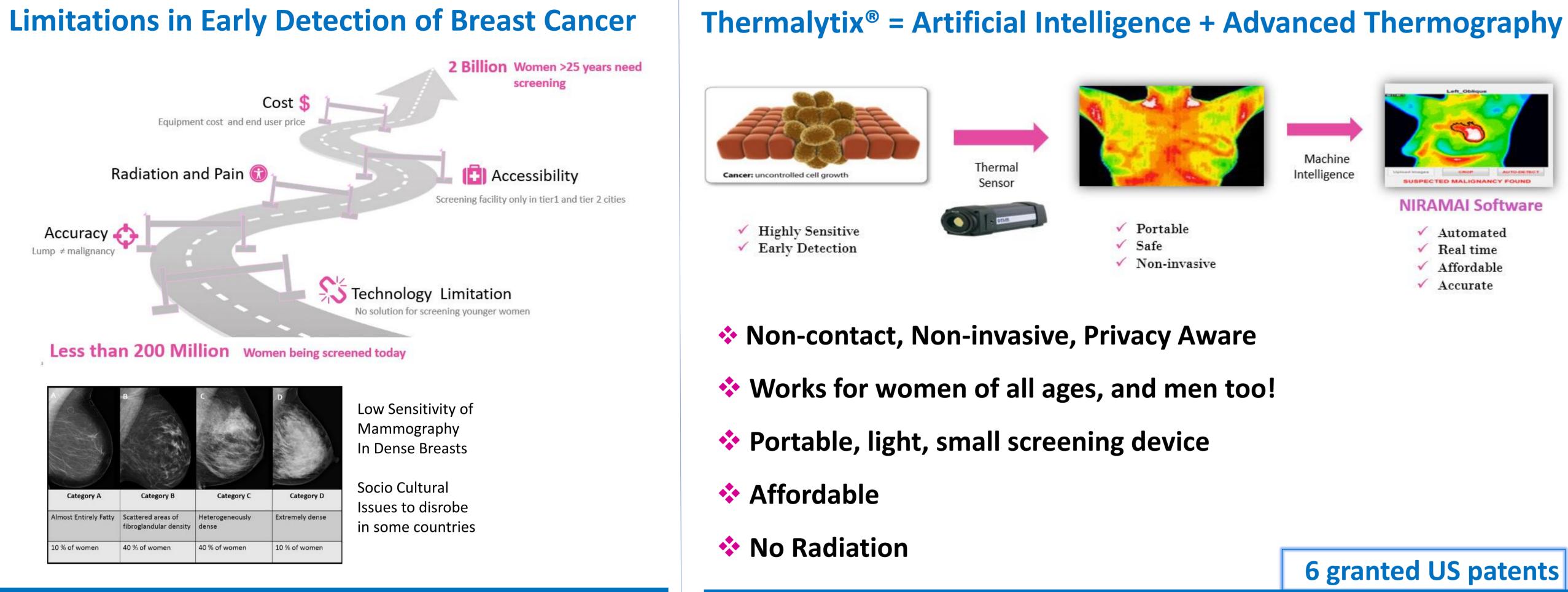
Artificial Intelligence over thermal images for radiation-free breast cancer screening Dr Geetha Manjunath^{*}, Dr Sudhakar S⁺, Sivateja Kakileti^{*}, Himanshu Madhu^{*}, Dr. Akshita Singh [@] *NIRAMAI Health Analytix, +Health care Global, @Narayana Hrudayalaya Limited



Survival rates in India and many countries is just 50%

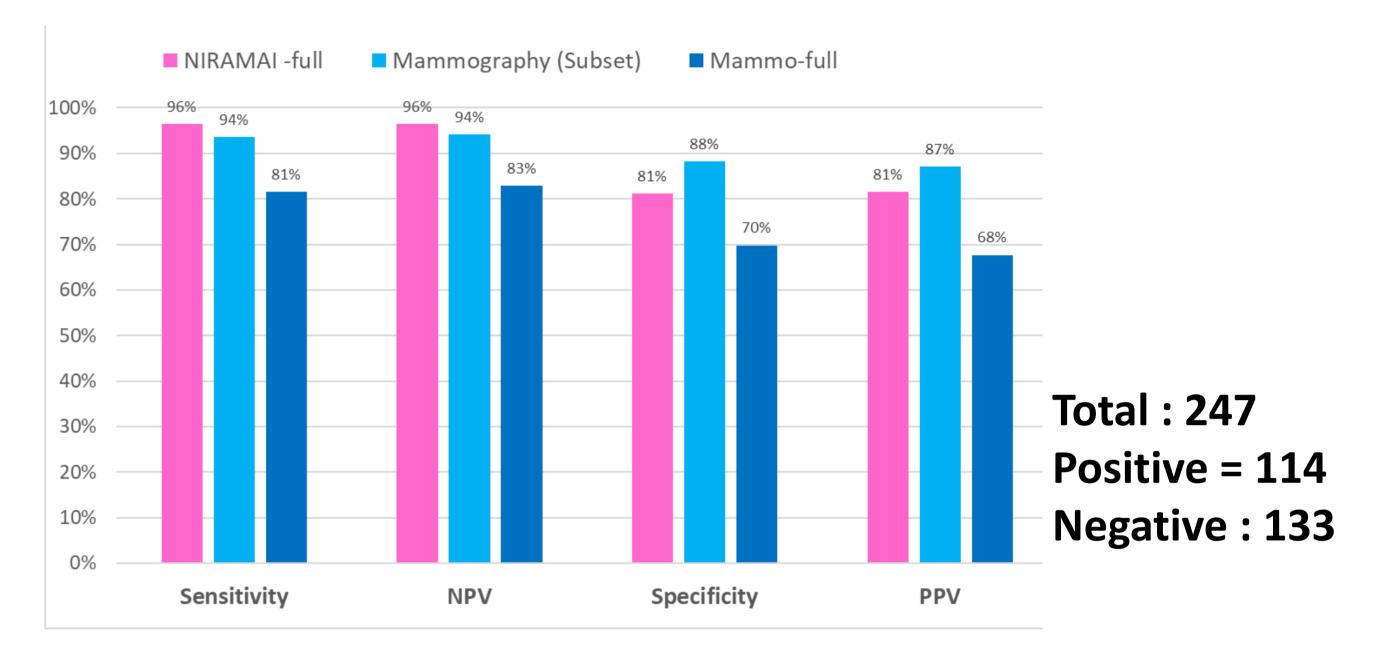
Method: A multisite comparative study was performed on 247 patients across 3 reputed cancer hospitals in India with informed consent from subjects and ethics committee approvals of respective hospitals. Every person who came for a mammography test was made to undergo the non-invasive Thermalytix test prior to mammography examination. As per standard of care in India, all women who had a suspicious lesion in Mammo were sent to Ultrasound and then to biopsy (if suspicious). 108 of the 247 subjects enrolled were found to be malignant by this standard procedure (11 of them did not have a biopsy report). Additionally, 13 biopsies were benign.

39 women were identified as dense breasts and Mammo reported 26 as negative and so no U/S was performed. NIRAMAI showed 9 of those as FP. Mammo was not done on 36 women and Mammo showed 7 as BIRAD 0.

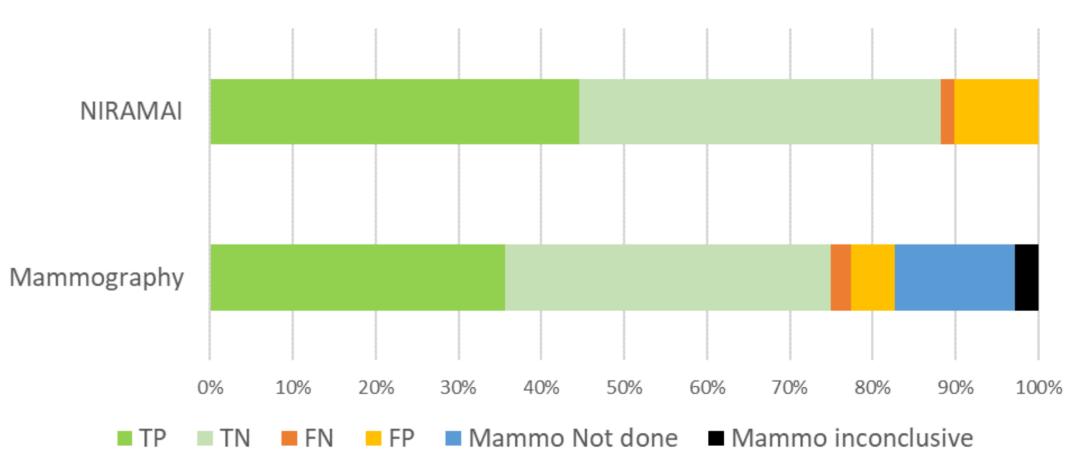
Results: Sensitivity, Specificity, NPV, PPV of NIRAMAI and Mammo were calculated for the full dataset considering missed cases as FN and cases passed to next confirmatory test as FP or TP. These metrics were also calculated for Mammography Conclusive cases only.

Early Detection of Breast Abnormalities in a Safe and Privacy Aware Manner

Comparing Thermalytix with Mammography



Comparing individual tests on 247 patients



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