PS 4

COMMUNITY-INTEGRATED EARLY BREAST CANCER DETECTION IN LMICS USING BC-RADS: THE BREAST CLINICAL REPORTING AND DATA SYSTEM (BCRAD-2 IMPLEMENTATION STUDY)

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Background

Late-stage presentation remains one of the most critical challenges in breast cancer control across low- and middle-income countries (LMCs).

Limited access to popula-tion-based mammography screening, workforce shortages, and fragmented referral pathways contrib-ute to delayed diagnosis and poorer survival outcomes.



Methods

BC-RADS incorporates history (age, family history) and clinical examination parameters (breast asymmetry/skin /nipple changes, lump characteristics, nodal findings).

RESULTS

- BC-RADS ≥7 (BC-RADS 4–5) was the optimal malignancy threshold, demonstrating:
  - Sensitivity: 93.2%
  - Specificity: 88.7%
  - AUC: 0.94 (95% CI: 0.91-0.96)
- Among women scoring ≤4, unnecessary imaging/biopsy referrals were reduced by 42 %
- Community health workers trained through a short structured program achieved diagnostic accuracy comparable to trained clinicians.

CONCLUSION

BC-RADS is a low-cost, scalable clinical decision tool that strengthens early breast cancer detection in LMICs.

Its integration at the primary care and community levels can reduce late-stage presentation, optimize referral pathways, and support national early-diagnosis goals.

BC-RADS Scoring System

BC-RADS Category	Score	Interpretation
1	0–2	Normal
2	3–4	Benign
3	5–6	Probably Benign
4	7–9	Suspicious
5	≥10	Highly Suggestive of Malignancy

