



# Breast Health & Early Detection

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Tahoe Forest Health System



# Who is this person?

- Medical Director; Breast Care TFHS
- Internal & Emergency Medicine -- UCD
- Diagnostic Radiology – UCD
- Fellowship -- UNC (University of National Champions; beat Duke 1993)
- Designed 6 breast care facilities & programs over last 30 years
- Who should be here next year?
  - What area of subject matter expertise would be of greatest value?
  - Who do you want to hear from or have access to?



# Conflicts of Interest

- ▶ Paid consultant to Hologic Inc.
  - ▶ Write articles
  - ▶ Crash test dummy in Santa Clara
  - ▶ TFHS was First site in CA to get AI for mammography
- ▶ Employee to TFHS
- ▶ True Believer in Early Detection



# Past, Present, and Future

- ▶ Event based illness care; the "illness industrial complex"
  - ▶ Surgical era begins 1846 with advent of anesthesia
  - ▶ Therapeutics era begins 1945 with mass production of Penicillin/Sulfa
- ▶ Progressive maintenance; the beginning of health care
  - ▶ Screening BCA era begins 1980s
    - ▶ Betty Ford effect 1974
    - ▶ ACS recommendation 1976
- ▶ Predictive and Pre-emptive care; precision care in the protection of health
  - ▶ FDA 510K certification of AI licensed for concurrent reading of mammograms
  - ▶ TFHS goes live April 1, 2022
  - ▶ Augmented intelligence to predict future events in the promotion of wellness

BCA; the most common cancer globally at 12.5% of all new cancer cases worldwide.

- ▶ 13% or 1 in 8 US women develop invasive disease over a lifetime
- ▶ ACS estimates for 2022: 287,850 new invasive BCA
  - ▶ 51,400 new cases of non-invasive (in situ) BCA
- ▶ 2,710 invasive BCA in men in 2022 with lifetime risk of 1 in 833
- ▶ 30% of newly diagnosed cancers in women will be BCA
- ▶ 43,250 US women expected to perish in 2022 from BCA
  - ▶ CA with 10% of population = 4,325 women in California

# Start with Why

- ▶ RCTs document screening reduces BCA mortality
  - ▶ CA A Cancer J Clin. 2002;52:68-71
- ▶ 70% of women who die were among the 20% non-participants
  - ▶ Failure analysis BCA deaths in women not regularly screened
    - ▶ Cancer 2014 Sep 15; 120(18): 2839-46
- ▶ Prospective annual participants in screening
  - ▶ 50% lower incidence of BCA mortality for serial participants
  - ▶ Vs 29% reduction in Dz specific mortality when less frequent participation
    - ▶ **Published Online: Mar 2 2021** <https://doi.org/10.1148/radiol.2021203935>

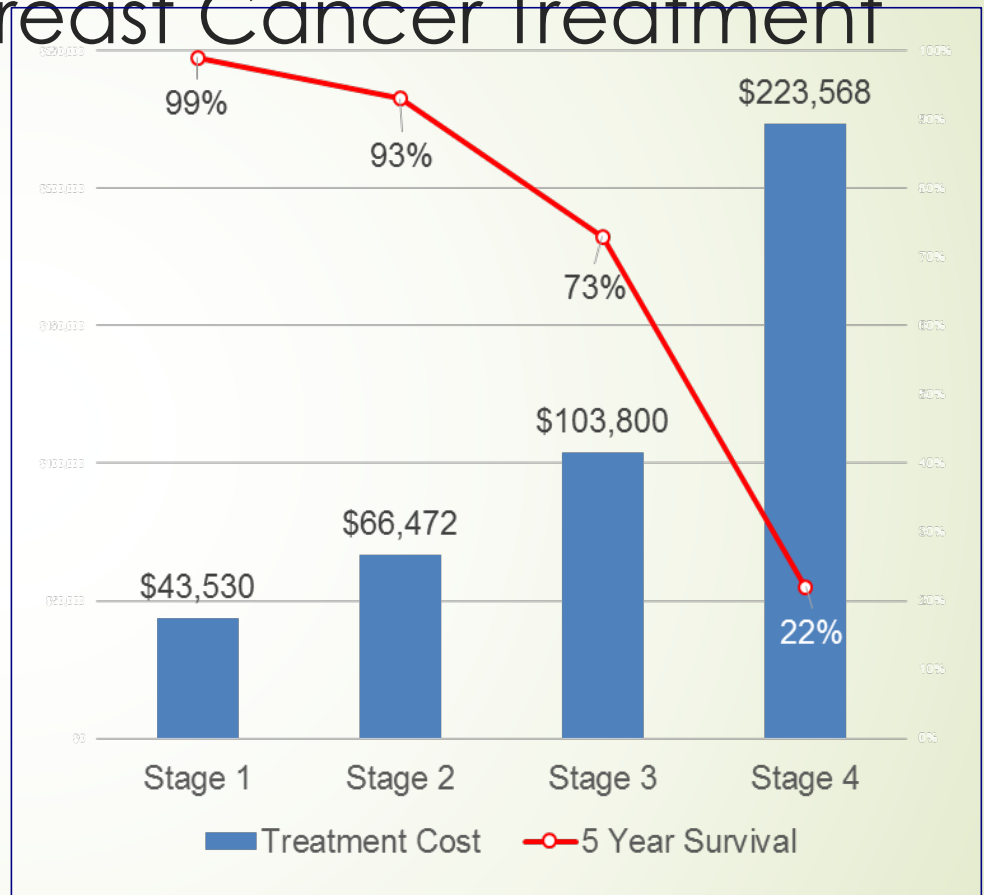
# Economics of Breast Cancer Treatment

## ➤ Early detection benefits

- Improved survival
  - 99% 5-year for Stage 1 vs 22% for Stage 4
- Reduced cost of treatment
  - \$43,530 for Stage 1 vs \$223,568 for Stage 4

## ➤ 2-Year Overall Healthcare Costs (2019)

- Patients treated with chemotherapy = \$200,045
- Patients treated without chemotherapy = \$80,870



Sources: Bonafede M Clinic Economics and Outcomes Research. 2015.


Howlader N, Noone AM, Krapcho M, et al. (eds.) SEER Cancer Statistics Review, 1975-2012, Table 4.13. National Cancer Institute. 2015.

Internal Analysis using IBM MarketScan Database (Oct 2021)

# When; Evidence based guidelines!

- ▶ 23 guidelines were issued 2010 to 2021 in 11 countries
  - ▶ AGREE II scores ranged from 33.3% to 87.5%
    - ▶ Breast. 2022 Aug; 64: 85-99
    - ▶ Fog of confusion results in paralysis and decline in screening
  - ▶ ACP: Avg risk women age 50-74 biennially
    - ▶ 40-50 SDM with PCP over benefits, harms, personal preferences
    - ▶ "20% of women in 10 yrs will be over-diagnosed and overtreated"
  - ▶ ASBrS: Annual screening starting at age 40
    - ▶ ACR, SBI, ACOG, NCCN
    - ▶ Delayed commencement and longer intervals:
      - ▶ Larger tumors, +LNs, distant mets, mastectomies, chemo, XRT, \$\$, recurrences, death





## Q&A

- ▶ Please ask me anything
- ▶ How can we come back next year to improve this engagement with the community?
- ▶ What resources and expertise would you like to see and be made available?



# With Appreciation

- ▶ TFHS for sponsoring this event
- ▶ Contacts
  - ▶ James F. Schlund, Briner Breast Care Center (530) 582-6584
  - ▶ Sadie Wangler, Director of Diagnostic Imaging (530) 582-6574
  - ▶ TFHS Center for Health (530) 587-3769
    - ▶ Community needs assessment
    - ▶ Population health management
      - ▶ Support groups, Exercise, Nutrition, Stress management, Menopause transition, Chronic Dz
  - ▶ Financial Assistance information- 530-582-6510