



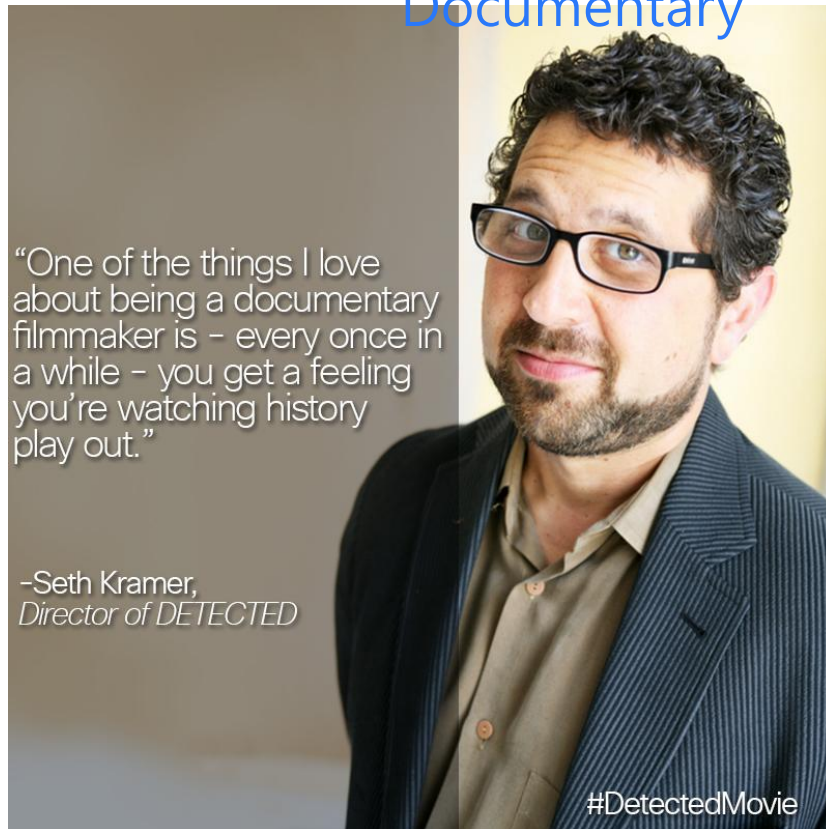
# CYRCADIA HEALTH



Migrating Fitness to Wellness: Population Health  
Wearables for Early Breast Cancer Detection

# What if one invention could change the fight against breast cancer forever?

## Cisco Systems Sponsored Documentary

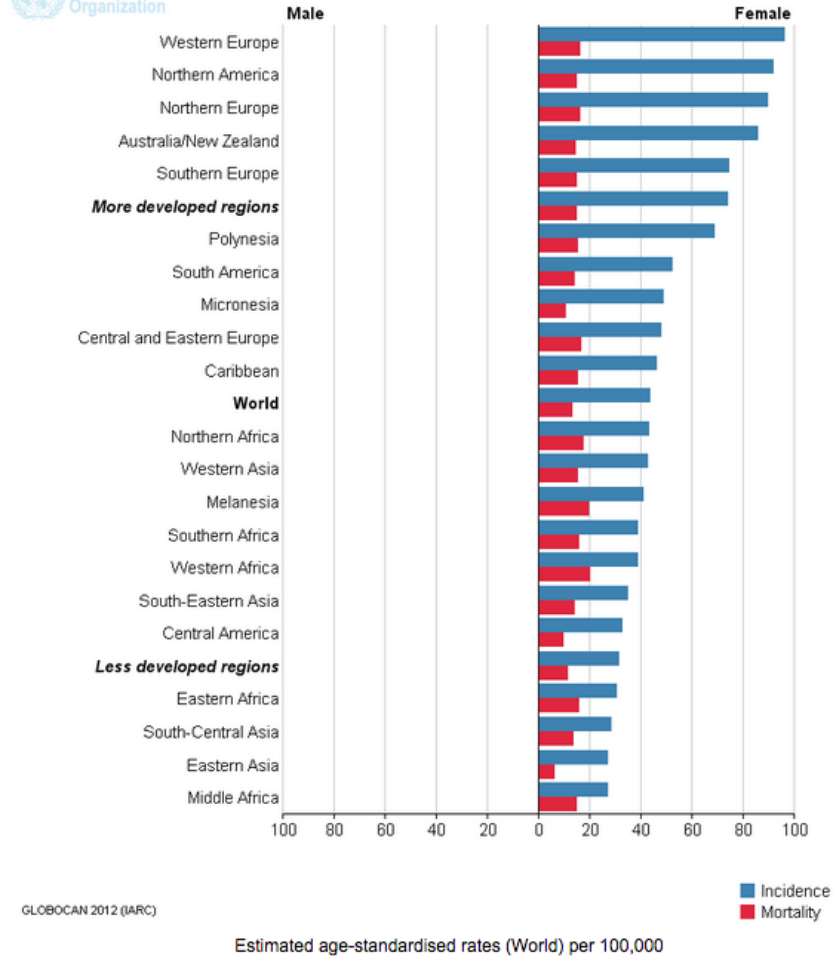


**DETECTED**  
#WHATIFYOUKNEW



# The Facts – Breast Cancer

International Agency for Research on Cancer



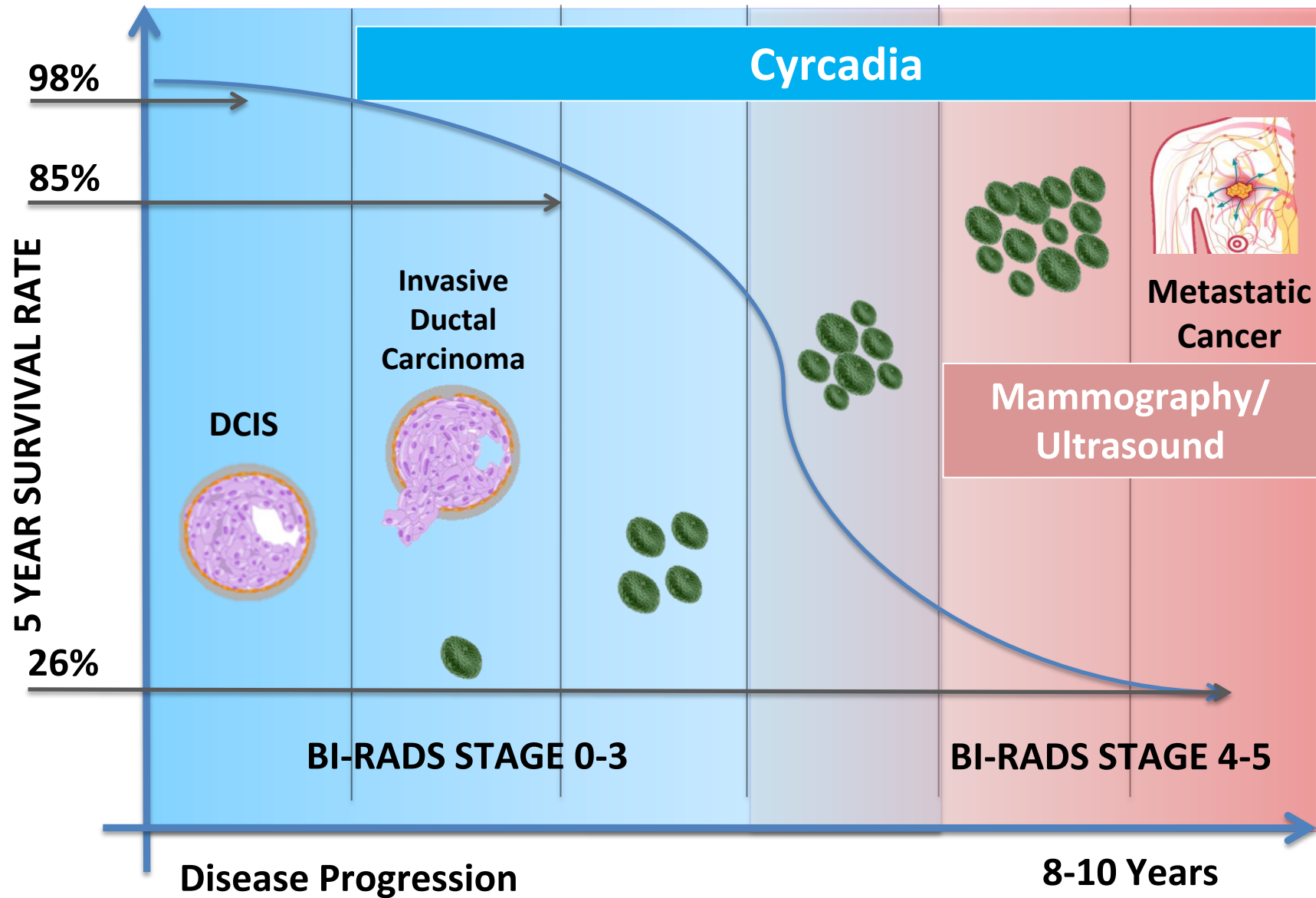
Breast cancer is the 2<sup>nd</sup> most common cancer in the world and, by far, the most frequent cancer among women

1.67 million new cancer cases diagnosed in 2015 (25% of all female cancers)

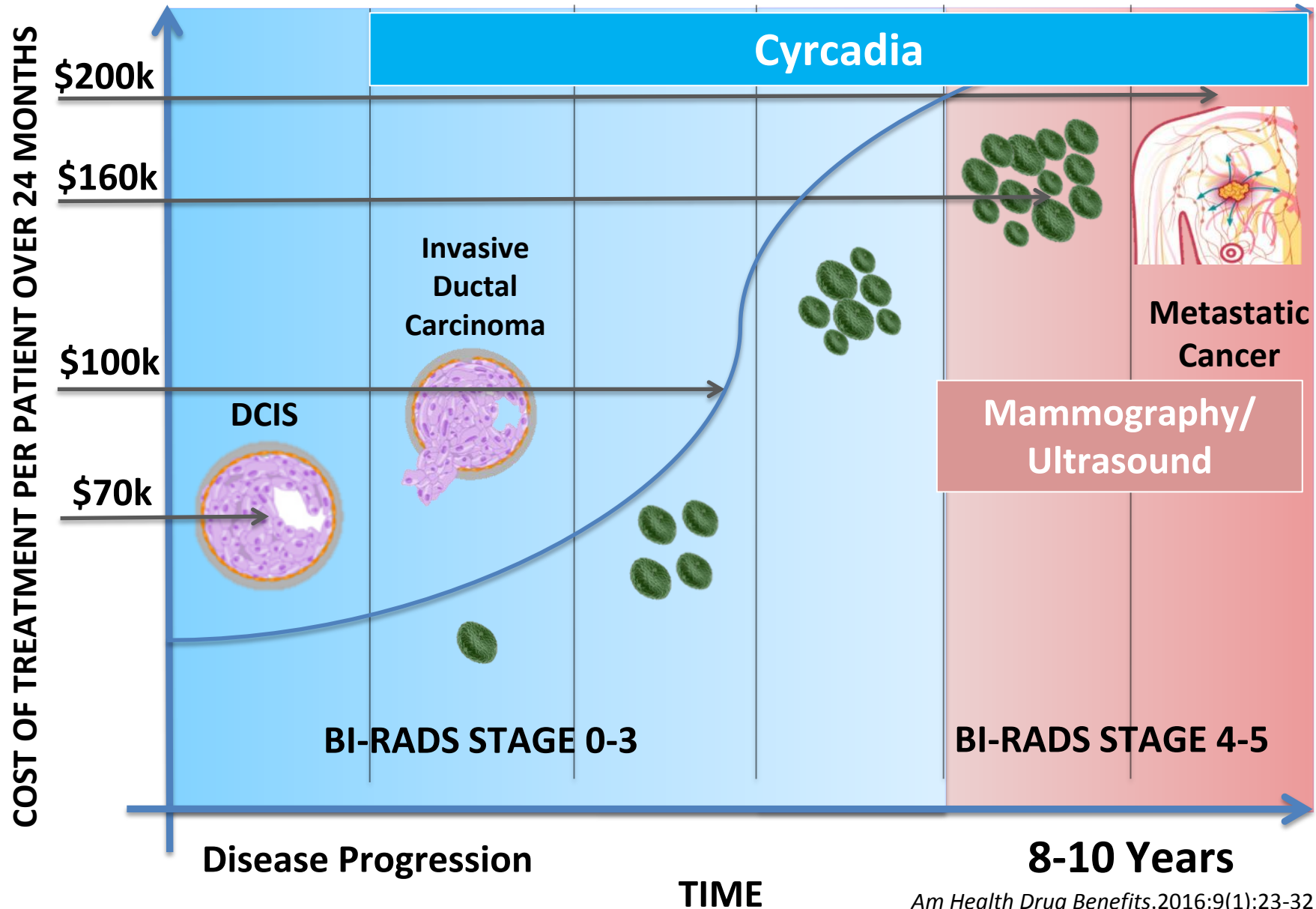
One in eight women will be diagnosed with breast cancer

Early detection is critical to saving lives, but current screening is archaic and far too late

# The Situation – Early vs. Late Stage Screening



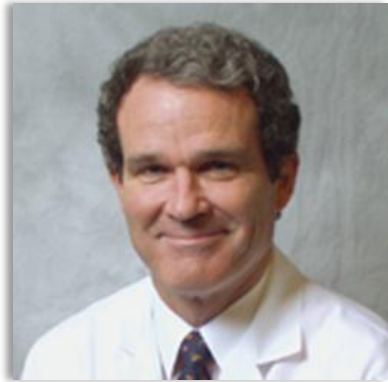
# The Situation – The Economic Burden



# What We Do



# What We See



**William B. Farrar, MD**



Cyrcadia Health (CH) Circadian Breast Cancer Profile



CH Fibroadenoma (Non-cancerous) Profile



*“ . . . preliminary data suggest that the monitor may be useful for screening those women with difficult mammographic interpretation (dense breast tissue). The monitor was positive for three cancers missed by mammography, with tumor sizes as small as 0.5 as well as micro-calcifications. Patient data which are positive on the monitor in the absence of mammographic or physical evidence of cancer does not preclude the presence of cancer at its earliest stage. . . ”*

**William B. Farrar, MD, Chief - Division of Surgical Oncology, OSU**  
**Excerpt from his original 138 patient trial**





# The Situation – World

Cancer registries cover the majority of populations in developed regions— but almost none in emerging economies.



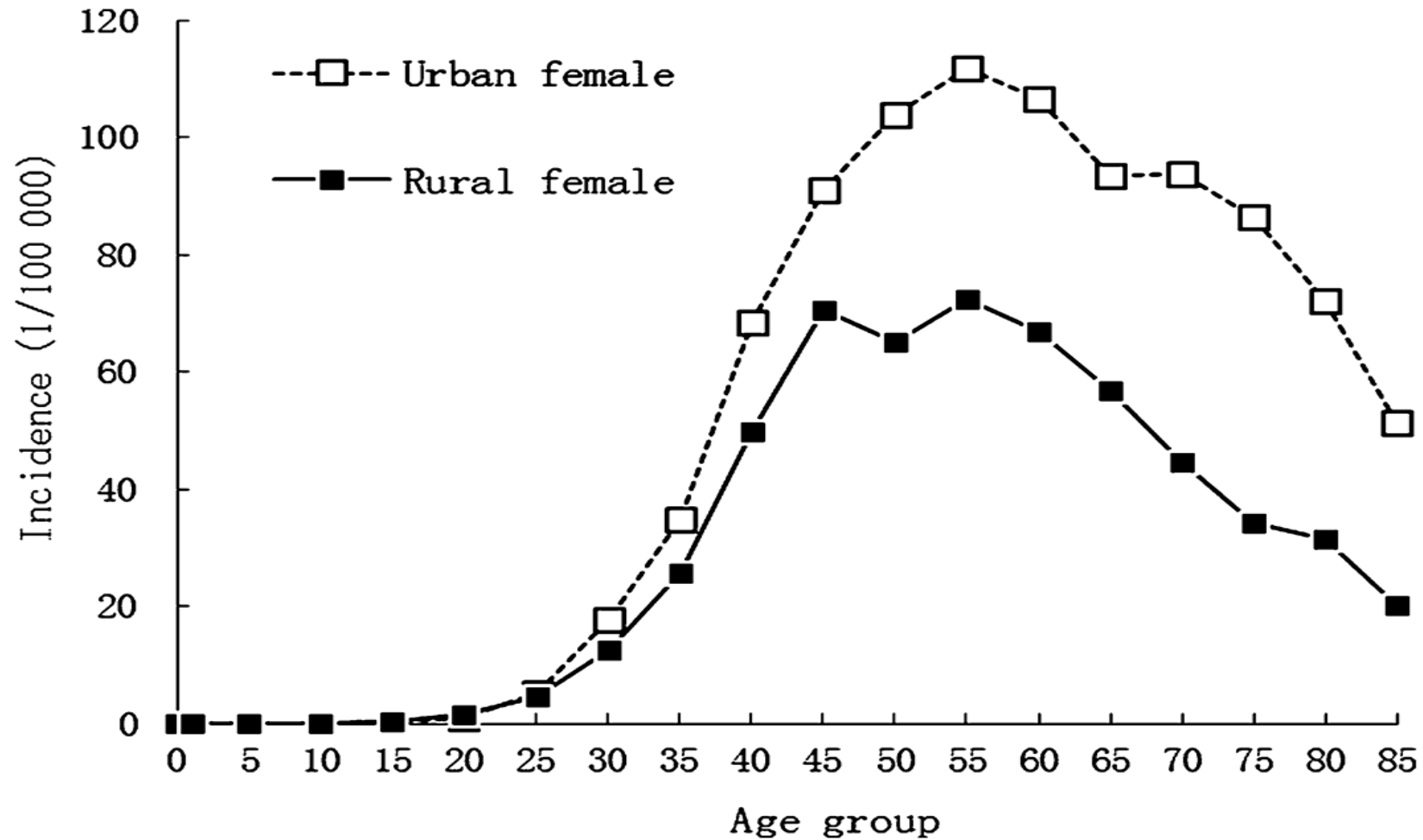
# The Situation - China

- *Unlike Western cultures no standardized nationalized screening has been established*
- *Beijing Study: 5.2% of new Breast Cancer cases found by mammographic screening vs. approx. 60% in US*
- *Conclusion: Breast cancer has been a great social and economical burden for China, but there is still quite a long way to improve the prevention.*
- *Breast cancer control efforts should include not only health-care delivery, but also public participation to increase awareness and promotion of early detection.*

*“Current status of breast cancer prevention in China”*

*Chronic Diseases and Translational Medicine  
Volume 1, Issue 1, March 2015, Pages 2–8*

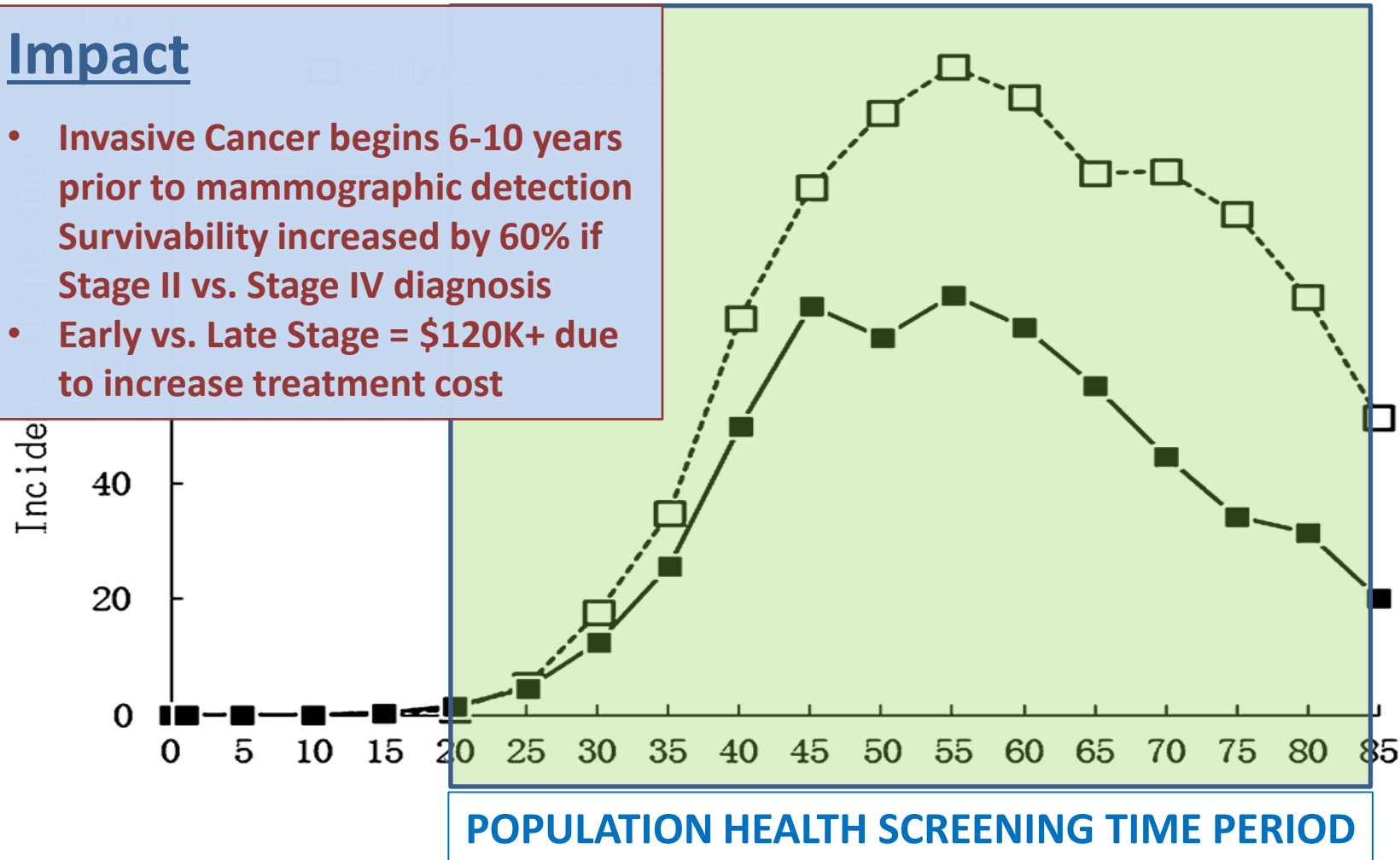
# China Breast Cancer Incidence



# Recommended Population Health Screening

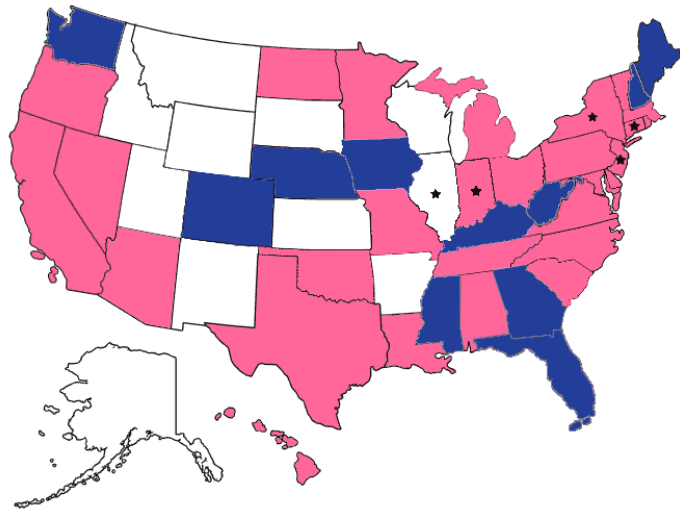
## Impact

- Invasive Cancer begins 6-10 years prior to mammographic detection
- Survivability increased by 60% if Stage II vs. Stage IV diagnosis
- Early vs. Late Stage = \$120K+ due to increase treatment cost



# The Density Challenge

40%+ of all Women Worldwide have Dense Breast Tissue



PINK: Enacted Law — RED: Introduced Bill — BLUE: Working on Bill — WHITE: No Action — BLACK : Insurance Coverage Law

Are You Dense Advocacy, Inc.  
[www.areyoudense.org](http://www.areyoudense.org)

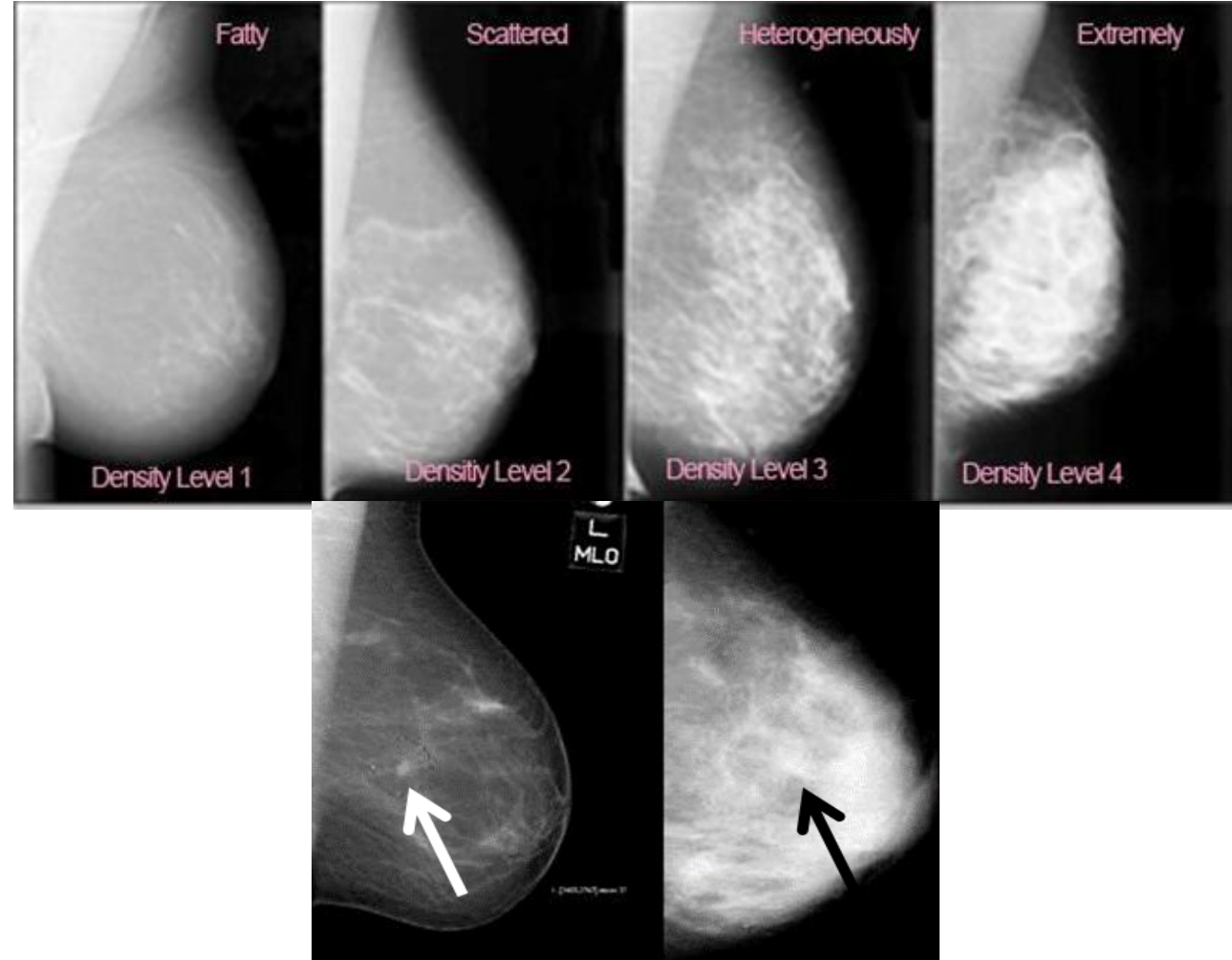
US State mandated communication from physician to patient

- *“Due to your condition, you have an increased chance of cancer (2X+)”*
- *“Current Diagnostic Modalities are Challenged with your condition”*
- *Mammography has a documented 48% accuracy with the densest of tissue <sup>(1)</sup>*

<sup>(1)</sup> Radiology. 2002 Oct;225(1):165-75.  
Kolb TM1, Lichy J, Newhouse JH.

**NO CURRENT ADEQUATE SCREENING SOLUTION EXISTS**

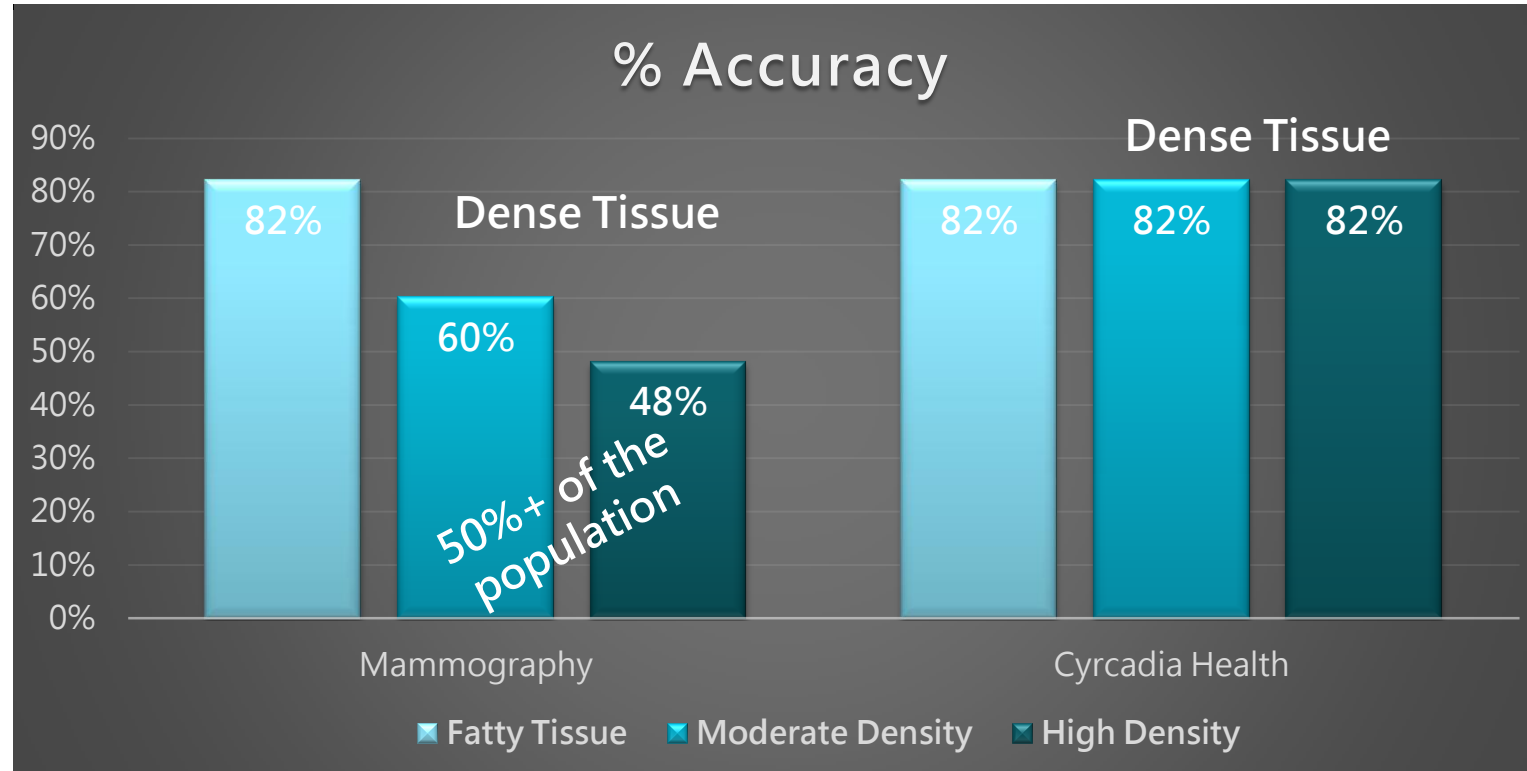
# The Imaging Challenge - Mammography and Ultrasound



Both of these breasts have tumors

# How We Perform: Density Screening\*

Cyrcadia will Greatly Improved Dense Tissue Accuracy



- Women with dense breast tissue have a 4X to 6X higher propensity for cancer
- Mammography accuracy is greatly reduced with density, down to 48% accuracy with the densest of tissue
- Cyrcadia will provide a tissue agnostic solution to over 40% of the population
  - \*Physician based diagnosis when utilizing Cyrcadia adjunctive results



# 2017 Global KOL Pilot Launch Potential



- **Global Launch for General Screening of Population**
  - Targeting early detection through personalized screening
  - General Population ages 21- 80 with Dense Tissue Focus
  - Screening and blood pathology trial protocol for early identification
  - Patents must be screened if positive result
- **Multi-site Pilot Launch Potential**
  - China, HK – Shanghai Cancer Hospital, United Family Healthcare
  - Singapore – National University Hospital
  - Japan, S. Korea – Location TBD
  - India - Apollo Hospital Group, Tata Medical
  - USA - Stanford base plus Brigham and Woman' s, JHU, Ochsner Clinic, Dignity Health expressed interest
  - Europe - L'Ospedale San Raffaele – Milan, Italy

# Global Breast Cancer Research Portal

## Cyrcadia Health Data Repository



**Government**

- Global Genotype/Phenotype Differential
- Familial History Trending
- % Patient Increase via. Personalized Screening
- Global Fatty vs. Dense Breast Tissue Data
- Earliest Predictive Outcomes – All Ages
- Earliest Biomarker Indication Coordination



**University**



***MetLife Japan/S. Korea/China  
Allianz – Germany + others***

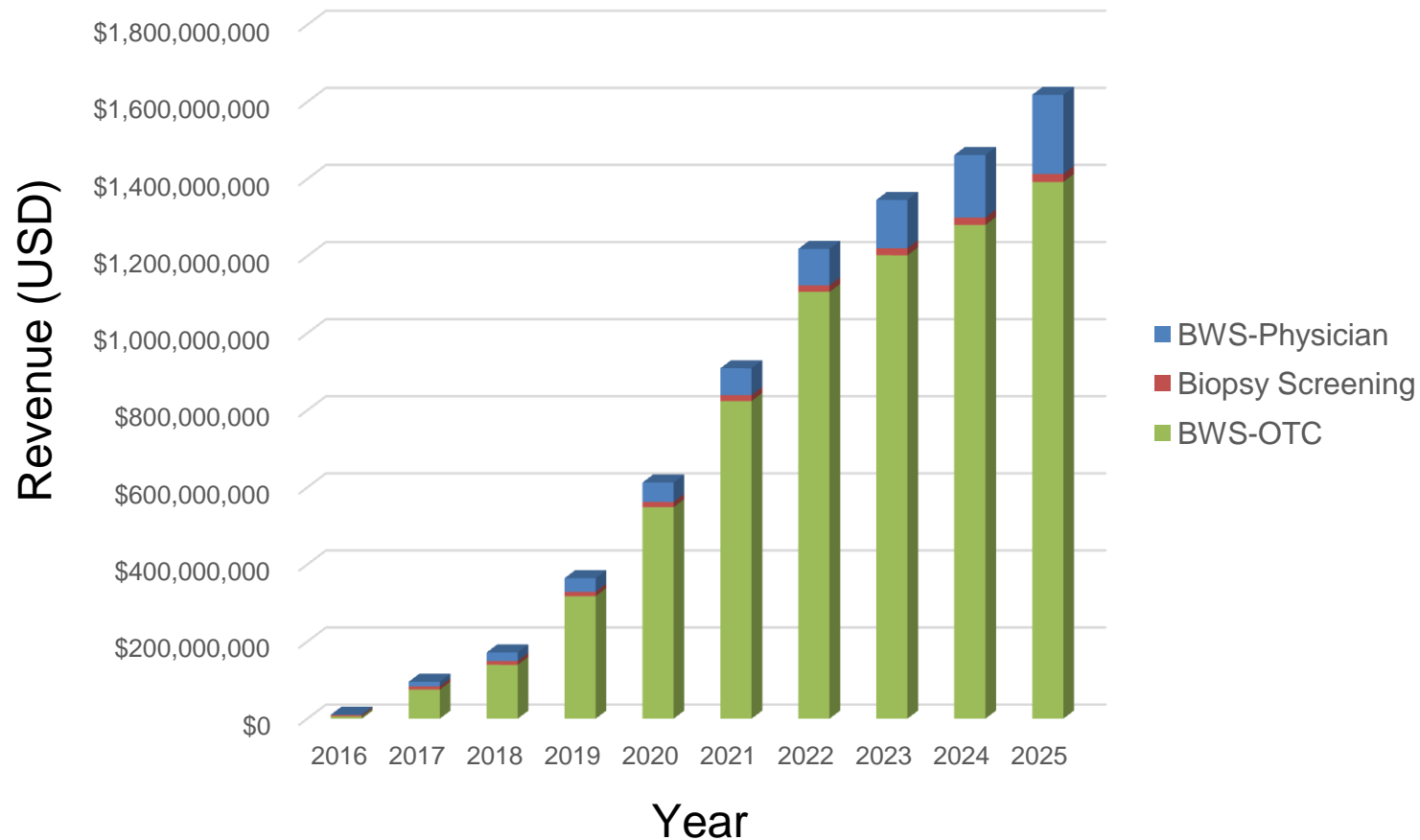
***The Value is in the Data***



**Industry**

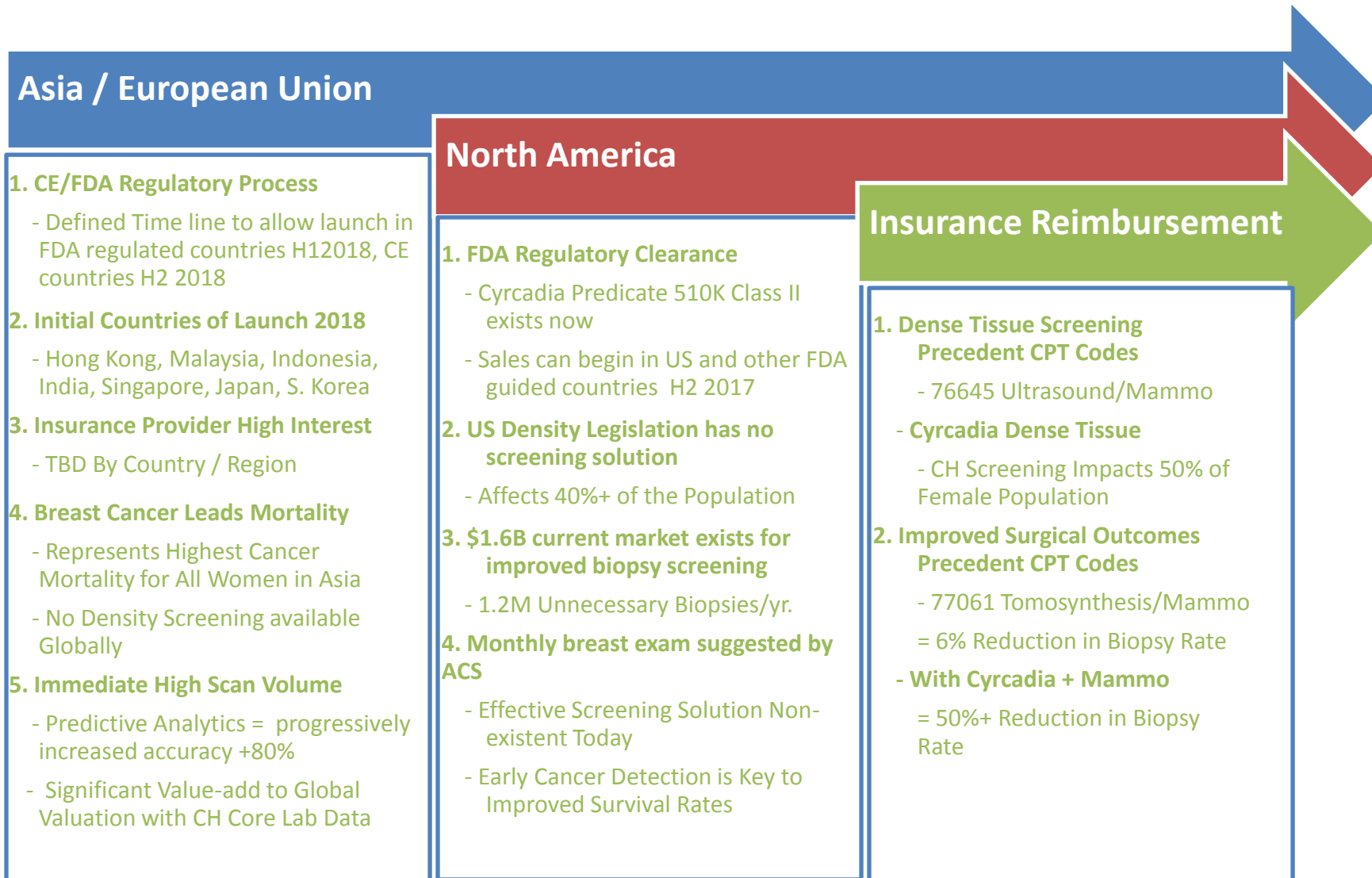
Third party survey of 2000 women, 300 physicians and 5 payor groups lead to the following US model assessment. OTC System revenue forecast approaches \$1.4B. US forecasts for the Physician Office Systems exceed a total of \$225M driven by the anticipated adoption of the technology in clinical breast exams and biopsies.

### **US REVENUE FORECAST FOR BREAST WELLNESS & PRE-BIOPSY SCREENING SYSTEMS\***



*\*Forecast assumes 12 hour wear time.*

# Global Launch Sequence 2018\*







# CYRCADIA HEALTH



*Thank You!*

*Rob Royea, CEO*  
[rroyea@cyrCADIA.asia](mailto:rroyea@cyrCADIA.asia)  
Cell: 408-334-3496