

# Application of AI to Breast Cancer for Hawai'i & the USAPI

Arianna Bunnell

Dr. Peter Sadowski (UHM) Dr. John Shepherd (UHCC)



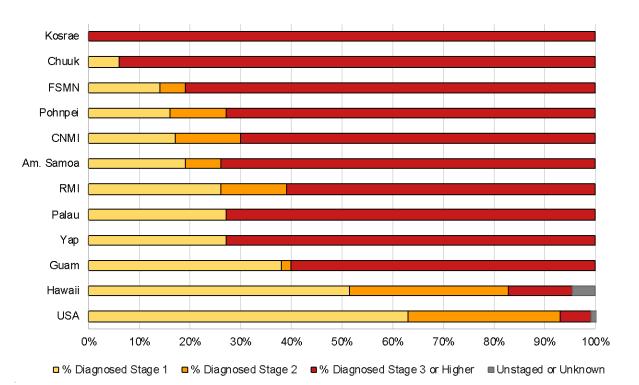


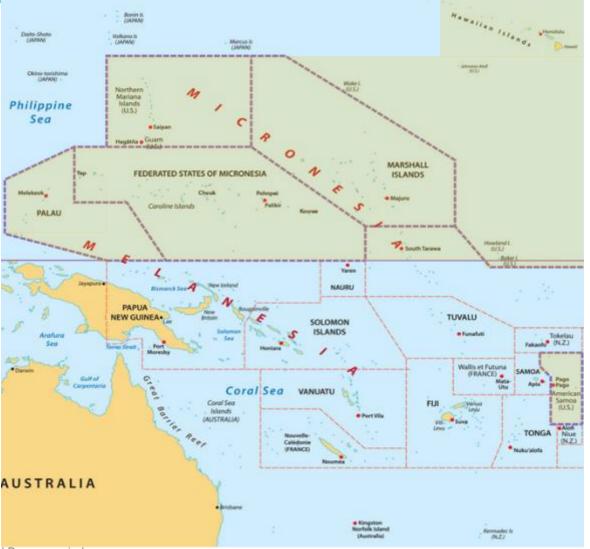
### **Elevated Advanced-Stage** Breast Cancer Rate

University of Hawai'i Cancer Center Catchment Area

U.S. Affiliated Pacific Islands

Advanced stage breast cancer rates in the Pacific are higher than in the USA mainland, especially where mammography is inaccessible





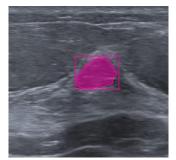


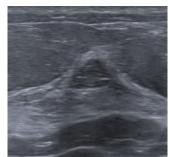
### Accessible Breast Cancer Early Detection and Risk Evaluation

Our hypothesis: Portable, handheld, AI-enabled breast ultrasound (BUS) devices operated by a local healthcare worker could greatly reduce advanced-stage cancer rates.

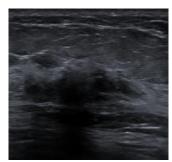
### How can breast US + AI help reduce the advanced-stage cancer rate?

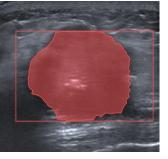
- 1. Finding breast cancer
- 2. Evaluating breast cancer risk







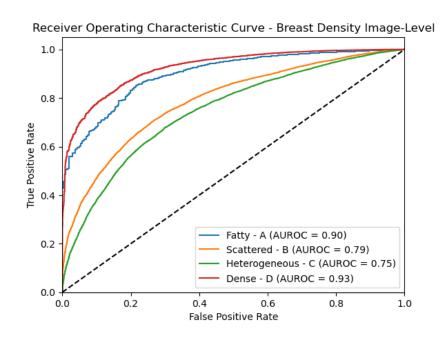




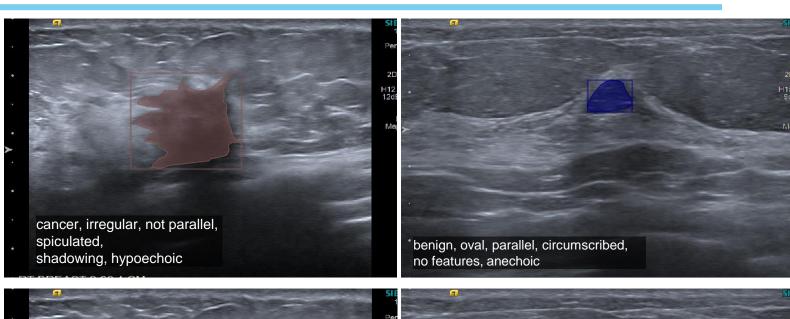


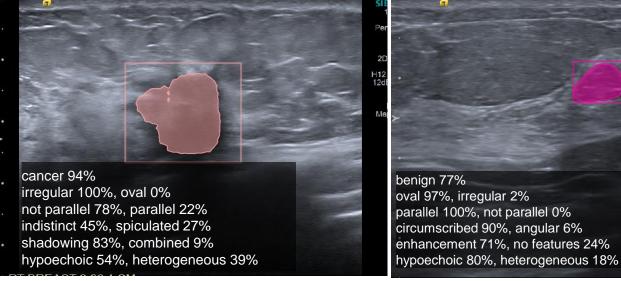


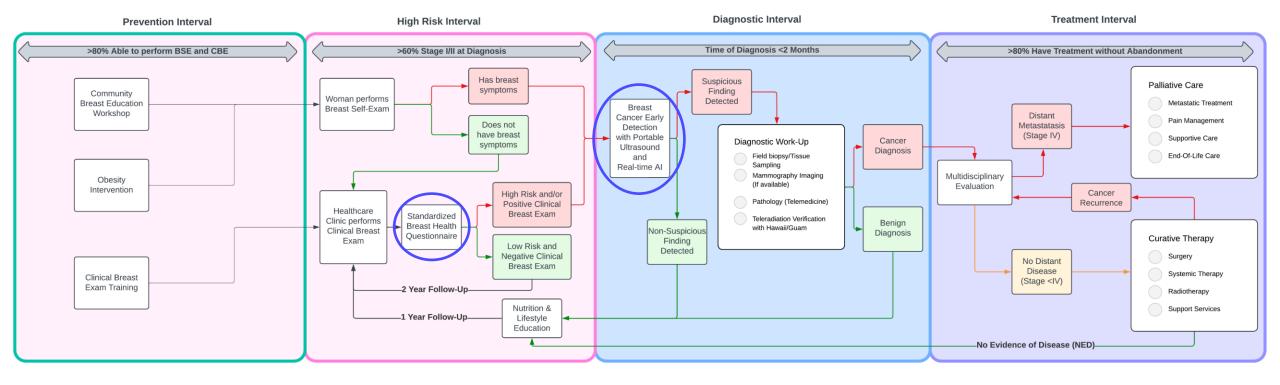
#### **Accessible Breast Cancer Early** Detection and Risk Evaluation











# Improving Breast Cancer Al for Women in Hawai'i

Most breast cancer AI is developed on datasets of White women from the continental US and Europe. Subgroup testing typically includes all AANHPI women as a single category.

### Do cancer risk Al models have acceptable performance among Asian subgroups?

BCSC 5-year risk	White N = 91,308	Filipina N = 6,551	Chinese N = 24,051	Japanese N = 2,485
	% of in	nvasive cancers d	iscovered within \$	5 years
<1.67% chance of developing cancer in the next 5 years	54	90	93	89
≥1.67% chance of developing cancer in the next 5 years	46	10	7	11



# The Hawai'i & Pacific Islands Mammography Registry (HIPIMR)

- Prospective cohort of women
- Collects breast imaging and breast health information (2009-present)
- Linked to the Hawai'i Tumor Registry to identify cases

This facility is participating in the

#### Hawai'i and Pacific Island Mammography Registry

#### **Fact Sheet**

Mahalo for contributing to valuable breast cancer research by completing our health questionnaire each time you come in for a mammogram!

<ul> <li>Use blue or black ball p</li> <li>Fill in circles completely</li> </ul>	oint p	en no f	elt tips										
<ul> <li>This information is used</li> </ul>	to he	ip the	radiolog	ist inter	pret your		**						
mammogram, <ul> <li>With your permission, th</li> </ul>				Det for our	of Con		Name: Birthda	1			-	Date:	
research purposes by the	HIPL	MR th:	at may lo	ead to im	provement	5	10000						
in breast health. Your day	a are j	protecte	ed by a fe	ederal cei	rtificate of		Address	81	street)				
confidentiality. If you do included in research, ple	not wi	ish to h	ave your circle.	inform	erion O				city, Mate				
Correct Mark				arks 🗸	xee.	0	Are you co	urren	tly taki	ng any	of the	following n	edic
have you ever had							O Tamos O Raloxi					ozole (Fem mones for b	
No Yes, If yes		nmogr	am:				Anastr				Nor		artn
When was y	our la		mmogr	am?			O Exeme	stans	(Aron				
O Less than				to 3 year		1	Which br	east	surge	ies or	treatn	ents have	you
1 to 2 yea			04	or more	years ago		Surgery/			Right	Left Breast	Date(s)	
Where was	t don	ie?				-	Fine need				O		
🔕 Have you had a clinic		ast exa	m withi	n the las	t 3 months	1	Core-	needl	e biops	y 0	0		
No Yes, If yes									d biops		0		
O No O		uscove	r a new	or unu	sual lump		Lumpecto				0	-	
·									therap		ŏ		
Have you noticed any	of	Pres			re last		Breast r	econs	tructio	0	0		
the following change in your breast?		Too			onths?	p			ductio		18	-	-
an your orease?		Right Breast	Left Breast	Right Breast	Left Breast		east implar	0.00			0	-	-
Lump (new or unusu		0	0	0	0	4	How tall are you	FI.	INCH.		ow uch de	POUNDS	
Nipple discharge (bloc	(dy)	0	0	0	0		in feet		-	ye	u	(2) (2) (2)	
Pain Other:		8	8	18	8		and		(1)		eigh in		
		0	0		100		inches?		0	pe	ounds?	(B(B)(B)	
Has a doctor ever t  No Yes, If yes Right brea  Has your mother, siste or any male relative er Please maxer for BLOC  No (stap to question 6	Age of st (s), d rer bes	f diagno Left b aughte en diag	sis? reast r(s), gras nosed w	Which Doth admother ith breas	breast? i breasts r(s), aunt(s)	G		90000	00000000				
Has a doctor ever to  No Yes, If yes  Right brea  Has your mother, siste or any male relative or Please insucer for BLOR  No (ship to question of  If "wes", please fill	Age of st (s), d rer bes	f diagno Left b aughte en diag	sis? reast r(s), gras nosed w r/y. se fill out t	Which Doth Both Indmother ith breas table) Was the d	breast? breasts r(s), aunt(s) it cancer? Don't know	G		000	88888888				
Has a doctor ever to  No Yes, If yes  Right brea  Has your mother, siste or any male relative e  Please masser for BLOC  No (skap to question 6)	Age of st (s), d rer bes	f diagno Left b aughte en diag	reant reant res), gran nosed w	Which I Both admother ith breas	breast? i breasts r(s), aunt(s) it cancer?  Don't know itagmosts age 50?		· following	(yuest	000000000000000000000000000000000000000	v aption	al but	GGG GGG GGG GGG GGG	
Has a doctor ever to No Yes, If yes Right brea Has your mother, siste or any male relative e Please muster for BLO No take to question 6 If "yes", please fill out this table Mother?	r(s), d rer ber	f diagno Left b laughter en diag attives of les (plea	reant reant res), gran nosed w	Which I Both admothe ith breas table	breast? i breasts r(s), aunt(s) it cancer?  Don't know itagmosts age 50?		helpfu	(quest		in bre	ast hea	GGG GGG GGG GGG GGG Will be very	
describe:    Has a doctor ever to   No   Yes, If yes	r(s), d rer ber	f diagno Left b laughter en diag attives of les (plea	reant reant res), gran nosed w	Which I Both admothe ith breas table	breast? i breasts r(s), aunt(s) it cancer?  Don't know itagmosts age 50?		helpfu Was there	Quest	O O O O O O O O O O O O O O O O O O O	the pas	t 12 me	cill be very	
Has a doctor ever to No Yes, If yes Right brea Has your mother, siste or any male relative e Please muster for BLO No take to question 6 If "yes", please fill out this table Mother?	r(s), d rer ber	f diagno Left b laughter en diag attives of les (plea	reant reant res), gran nosed w	Which I Both admothe ith breas table	breast? i breasts r(s), aunt(s) it cancer?  Don't know itagmosts age 50?		Was there you neede	quest	© © © © © © © © © © © © © © © © © © ©	the pas th care	t 12 me	cill be very	
describe:  thas a doctor ever to No Yes, If yes to No Yes, If yes to Right brea to ray male relative or Please musure for III.36. No taip to question of If "yes", please fill out this table to the Tell of the No taip to the No taip to please fill out this table to Tell out the No table to Tell o	r(s), d rer ber	f diagno Left b laughter en diag attives of les (plea	reant reant res), gran nosed w	Which I Both admothe ith breas table	breast? i breasts r(s), aunt(s) it cancer?  Don't know itagmosts age 50?		Was there you neede	questi for r	(a) (b) (c) (c) (d) (d) (d) (d) (d) (d) (d) (d) (d) (d	the pas th care	t 12 me but co	cill be very	9
describe:    Has a doctor ever to   No   Yes, If yes	r(s), d rer ber	f diagno Left b laughter en diag attives of les (plea	reant reant res), gran nosed w	Which I Both admothe ith breas table	breast? i breasts r(s), aunt(s) it cancer?  Don't know itagmosts age 50?		Was there you neede O No What w O Fan	questo for y any to d to g	(a) (b) (c) (c) (d) (d) (d) (d) (d) (d) (d) (d) (d) (d	the pas th care reasons	t 12 me but co s? (fill in	all that apply applications	9
describe:  Has a doctor ever to No Yes, If yes, If yes to Righe brea or any male relative e-flease measure for MLM of the No Osine to question 0 If Yes*, I peans fill out this tolder Mother? Sister(s)?  Daughter(s)?  Grandmother(s)?  Aunticis?  Has your mother, a or aunticis ever been	No Ooster(s) ding	f diagno Left b laughte en diag stress or (es (plea	sis? reast r(s), gran nosed with se fill out t	Which Both admother ith breast ablet Was the distort of Yes	breast? breasts r(s), aunt(s) t cancer? Don't know litagnosis age 30?	The	Was there you neede O No O What w O Cos O Tra	quest quest for r  yes  Yes  t of c  t of c	(a) (b) (c) (d) (d) (d) (d) (d) (d) (d) (d) (d) (d	the pas th care : reason	t 12 me but co s? (fill in respon	all that apply applications	D O
describe:  # Has a doctor ever t No 'Yes, If yes, Right braa  # Has your mother, siste or any male relative or # Has your mother, # No chap to quartene # Hywer, please # H out this table # Mother? Sister(s)? Grandmother(s)? Grandmother(s)?  Grandmother(s)?  # Has your mother, si	No Ooster(s) ding	f diagno Left b laughte en diag stress or (es (plea	sis? reast r(s), gran nosed with se fill out t	Which Both admother ith breast ablet Was the distort of Yes	breast? breasts r(s), aunt(s) t cancer? Don't know litagnosis age 30?	The	Was there you neede No What w Fan Cos Tra	quest  for r  any t  t of c  Yes  vel or  vel or  vel or	(a) (b) (c) (c) (c) (c) (c) (c) (c) (c) (c) (c	the pas th care th care reason or work nsuran portatio	ast hear t 12 me but co s? (fill in a respondence cove in	will be very life.  mths when uld not?  all that apply:	UIS ARGA
describe:  Has a doctor ever t No Yes, If yes Bighs bras Has your mother, sist or any male relative or Flesse answer for Hild. No tait possesses H"yest", please fill out this table Mother? Sister(s)? Grandmother(s)? Grandmother(s)? Auntis(s) Male relative(s)? Has your mother, si or aunt(s) ever beer Please messer for Hild. No Yes	Age of st (ar(s), d (ar(s)	f diagno Left b laughter en diag director (es (plea	sis? reast r(s), grainosed widy.  ghter(s with ordy.	Which Both admother ith breastable!  Was the defere to Yee.	breast? threast? threast? threast? to anote?  Don't know Hagmosts use 507  is in the first threast threat threast threast threast threast threat	The	Was there you neede No What w Fan Cos Tra Oth Racial or C Africa	quest.  (a) (b) (c) (c) (d) (d) (d) (d) (e) (e) (e) (e) (e) (e) (e) (e) (e) (e	(a) (b) (c) (c) (c) (c) (c) (c) (c) (c) (c) (c	the pas th care th care reason or work nsuran portatio	ast hear but co but co s? (fill in a cove in Jap	acill be perylift.  with when uld not?  all that apply) anese	IN THIS ARKA
describe:  Has a doctor ever t No Yes, If yes Has your mother, siste or any male relative er Flesse answer for HLA's No taity to question of If yest, I please fill out this table Grandmother(s)? Grandmother(s)? Aunt(s)? Has your mother, si or aunt(s) ever beer Please messer for HLA's	Age of st (rs), d (rs)	f diagno Left b aughte en diag attive or (es (plea	ghter(s with ordy	Which Both admother ith breastable!  Was the defere to Yee.	breast? threast? threast? threast? to anote?  Don't know Hagmosts use 507  is in the first threast threat threast threast threast threast threat	The	Was there you neede No What w Fan Cos Tra Oth Racial or Cauca Hispan	questificany to great any to great affect of the state of any to great affect and the state of t	(a) (b) (c) (c) (c) (c) (c) (c) (c) (c) (c) (c	the pas th care th care reason or work nsuran portatio	t 12 me but co s7 (fill in a cove in Jap	acill be very the much swhen uld not?  all that apply salusities range  Il that apply anese pina numese	NUTCLY THIS ARKA
describe:  Has a doctor ever t No 'Ne, If yes, If yes Righe brea Has your mother, sists or any male relative e Please muser for HLM No take to question 0 If 'yes', please fill out this table Mother? Sistor(s)? Daughter(s)? Grandmother(s)? Auntics)? Has your mether, a or auntis ever beer Please muser for HLM No 'Yes At what age did you \$\frac{1}{2}\$ 1 1 1 1	No Starter of a diag	f diagno Left b aughte en diag five an diag Yes  Yes  No daughte  Yes  18  18  18	ghter(s with ordy	Which Both admother ith breastable!  Was the defere to Yee.	breast? threast? threast? threast? to anote?  Don't know Hagmosts use 507  is in the first threast threat threast threast threast threast threat	The	Was there you neede No What w Fan Cos Tra Oth Racial or Africau Cauca Hispan Ameri	questi for r any t at d to g Yes t d for ear ethnily, and to ear en-Am sian/A	(a) (b) (c) (c) (c) (c) (c) (c) (c) (c) (c) (c	the pas th care th care reason or work nsuran portatio	t 12 me but co but co s? (fill in a responde cove in ) Jap ) Fili ) Viet	will be very the control of the cont	JI WALTE IN THIS ARKA
describe:  # Has a doctor ever to No Yes, If yes Righe brea or any male relative e Please smearer for BLO No (aspect for the table of ta	Age of st (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	f diagno Left b aughte en diag five an diag Yes  Yes  No daughte  Yes  18  18  18	ghter(s with ordy	Which Both admother ith breastable!  Was the defere to Yee.	breast? threast? threast? threast? to anote?  Don't know Hagmosts use 507  is in the first threast threat threast threast threast threast threat	The	Was there you needed No What w Fan Cos Tra Oth Racial or Cauca Hispan Native Native	questi l for r any t el to g	(a) (b) (c) (c) (c) (c) (c) (c) (c) (c) (c) (c	the pas th care reasons or work nsuran portatio rounds	t 12 me but co but co s? (fill in a cove n Coli Coli Coli Coli Coli Coli Coli Coli	soill be very lift.  with when uld not?  all that apply ancese range  all that apply ancese consecutive in the consecutive in t	O NOT WRITE IN THIS ARKA
describe:  # Has a doctor ever to No Yes, If yes Righe brea on Montes, sist or any male relative e- Flease muses for ILON (No take to question different for ILON (No Terradius)    # Have your mother, si or aunticity ever been flease non-more for ILLON (No Yes No Yes ILON (No Yes Ilon (N	No No Sterfer  No	f diagno Left b taughte taught	reast reast response to the second reast r	Which to Both moderate the broas table to before a Ye was the distance of the before a table to be to	breast? breast. breast? breast? breast. breast	The •	Was there you neede No What w Fam Cos Tra Oth Racial or r Africas Cauca Hispan Ameri Native Chunk Chunk	questi for r any t d to g t of core ethnism n-Am nicola in t Haw tesse Pacifi	(a) (b) (c) (c) (c) (c) (c) (c) (c) (c) (c) (c	the pas the care the care reasons or work assuran portatio rounds Black	t 12 me but co but co s? (fill in a Fili Viet Chi. Kar Cha	will be very  the control of the control  all that apply) ancese  namese namese  namese  namese  namese  namese  namese  namese	SE DO NUI WHITE IS THIS ARKA
Has a doctor ever to No Yes, If yes a doctor ever to No Yes, If yes to Righe brea any male relative et Please muster for BLot Ordon State of any male relative et Please muster for BLot Ordon State of State (1) Daughter(e)? Daughter(e)? Aunticio? Grandmoher(e)? Aunticio? Male relatives in aunticio ever bees musure for BLot Or Aunticio? Yes At what age did you \$10 11 11 11 Have you ever give. No Yes, If yes How old were you we Under egg 20	No N	I det bit diagnos de la diagno	reast reast response to the second reast r	Which Both and the before a Ye	breast? breast. breast? breast? breast. breast	The •	Was there you neede No What w Fam Cos Tra Oth Racial or Africa Cauca Hispan Native Chuuk Other How man	quests for , any t di to ; t de core the nily,	(a) (b) (c) (c) (c) (c) (c) (c) (c) (c) (c) (c	the pas the care reasons or work asuran portatio rounds Black	t 12 me but co but co s? (fill in a Fili Viet Chi. Kar Cha	acill be perylific.  which when uld not?  all that apply ances pina namese neese ean morro	PLEASE DO NOT WRITE IN THIS ARKA
Has a doctor ever to No Yes, If yes Ray your mother, sist or any male relative e Please muser for ILLO Mother?  No 'An Stap to questined in the table Mother? Sister(s)?  Daughter(s)?  Mair relative in ILLO Mother?  Sister(s)?  Daughter(s)?  Auntis(s)?  Has your mother, si or auntis(s) ever been flower for ILLO No Yes  At what age did you yes like your yes flower flow ILLO No Yes  At what age did you yes, If yes yes, If yes yes, If yes yes, If yes How old were you w Under age 20  3.3-99 years old	No N	f diagno Left b	sis?  reast reast reast reast sis glateria  i  i  i  i  i  i  i  i  i  i  i  i	Which is Michael William Was the debetore or Ye Ye Was that debetore or Ye Ye Was that debetore or Ye	breast? breasts breast	The •	Was there you needed No What w Fan Cose Tra Oth Racial or Cauca Hispan Ameri Native Chuuk Other How man Some Island	questi for r any t d for r any t t of con lucr cethnism. Am niclate cen lucr tesses and niclate central tesses and nicla	of of of the control of the control of the control of	the pas th care reasons or work neartain cortatio rounds Black	t 12 me but co st (fill in a response cove n  (fill in a Fili Viet Char Char Other	will be very  the control of the control  all that apply) ancese  namese namese  namese  namese  namese  namese  namese  namese	FLLASE DO NOT WIGTE IN THIS ABICA.
Has a doctor ever to No Yes, If yes a doctor ever to No Yes, If yes to Righe brea any male relative et Please muster for BLot Ordon State of any male relative et Please muster for BLot Ordon State of State (1) Daughter(e)? Daughter(e)? Aunticio? Grandmoher(e)? Aunticio? Male relatives in aunticio ever bees musure for BLot Or Aunticio? Yes At what age did you \$10 11 11 11 Have you ever give. No Yes, If yes How old were you we Under egg 20	No	f diagno Laft b laughte laught	sis? reast reast reast sis, grau sonosed wi so fill out t  i  i  l  period 11 period 14  2  2	Which hold was the delivery of the start was bor was bor 25-29 y	breast? breasts r(s), aunt(s)	The •	Was there you neede No What w Fam Cos Tra Oth Racial or Africa Cauca Hispan Native Chuuk Other How man	questi for r any t	of the state of th	the pas th care reasons or work assuran portatio rounds Black	t 12 me but co s7 (fill in a response cove on Gill in a Chi Chi Cha	will be very  the control of the control  all that apply) ancese  namese namese  namese  namese  namese  namese  namese  namese	FLLASE DO NUI WRITE, IN THIS ARKA
Has a doctor ever to No Yes, If yes a doctor ever to No Yes, If yes to range and the product of	No N	f diagno Laft b aughte aughte en diag files pha les ph	sis?  reast rests  reast rests  reast rests  reast rests  reast rests  reast reast  reast reast  rea	Which hold was the delivery of the start was bor was bor 25-29 y	breast? breasts r(s), aunt(s)	The	Was there you neede No What w Fara Cos Tra Oth Racial or Africa Cauca Hispan Ameri Native Chuuk Other How man Some   Highs Colleg	questifier que questifier que	of of one of the state of second control of the state of th	the past the care is reasons or work insuran oortatio prounds Black der chooling riess atte or Chinical rimore	ast hea t 12 me but co but co to fill in r respon ce cove n fill in r fill in r Chi Chi Cha Gha Gha Gha Gha Gha Gha Gha Gha Gha G	acill be very title the very title that apply a sibilities range in a manese pina manese easa merro er very title to the title title to the title titl	FLLANE DO NOT WHETE IN THIS ARKA
Has a doctor ever to No Yes, If yes Raybur brooker, sist or any male relative e Please muser for ILON No tax to question of the total to the total to the total to the total t	No N	f diagno Left b aughte aughte en diag arrive au (es ipka  Yes  Aughte  Yes  Yes  Aughte  Yes  Yes  Yes  Yes  Yes  Yes  Yes  Y	sis?  reast rests  reast rests  reast rests  reast rests  reast rests  reast reast  reast reast  rea	Which hold was the delivery of the start was bor was bor 25-29 y	breast? breasts r(s), aunt(s)	The	hatphe was there you needed No What we Fam Cos Tra Cos African Cauca Hispan Native Chauk Some   Some   Some   Colleg Arr you war Ar you war Ara you war	quest to for r any t t t t to for r any t t t t t t t t t	of of of other control of the control of other control of	the passible the p	ast hea t 12 ms but co but co to fill in a fil	will be very lift.  with when uid not?  all that apply) intese rage  If that apply intese rage  If that apply intese rage  are the rage rage  and rage rage  are the rage rage  are the rage rage  are from the rage rage  are future to the rage rage rage  are future to the rage rage rage  are future to the rage rage rage rage  are future to the rage rage rage rage rage  are future to the rage rage rage rage rage rage rage  are future to the rage rage rage rage rage rage rage rag	FLLANE DO NOT WHETE IN THIS ARKA
Has a doctor ever to No Yes, If yes Raighe brea manuer for ILLO Mother, Said or any male relative e Flease measure for ILLO Mother? Sister(e)? Daughter(e)? Sister(e)? Daughter(e)? Auntico? Auntico? Grandmother(e)? Auntico? Auntico? Auntico? Auntico? Auntico? Male relatives in a unit of yes expenses measure for ILLO No Yes At what age did you will be to the control of the control	No No Sterfer a diagger and birt : heny years a larger and per season and season an	f diagno Left b aughte aughte en diag fiftes or (es (pka  Yes), dau nosed dires or  18 h  our fir 19 years 11 riods s equent turally	sis? react rest; ghter(s), gran ghter(s), gran ghter(s), gran ghter(s) se fill out t t t t t t t t t t t t t t t t t t	Which breass Both demoths breass Both demoths breass Both demoths breass Was the defect of the before of the befor	breast? breast? breasts r(s), aunt(s) t cancer?  Don't knot knot knot knot knot knot knot kno	The	Was there you neede No What w Fara Cos Tra Oth Racial or Africa Cauca Hispan Ameri Native Chuuk Other How man Some   Highs Colleg	questification of the state of	of of of other control	the passes the passes the passes the passes the care of the passes	ast hea st 12 ms but co but co st (fill in a paper of the co c	will be very thin apply anese pina numese ean morroe er e you had?	FLLASE DO NOI WHITE IS THIS ABIA
Has a doctor ever to No Yes, If yes Bay your mobber, sist or any male relative e- Flease muser for BLOW Mother? Mother? Mother? Mother? Major and the table Mother	No N	f diagno Left base had been diagnosed for the second of th	sis? read treat trial gradual gradual trial gradual trial gradual trial gradual trial gradual gradual trial gradual trial gradual trial gradual trial gradual gradual trial gradual trial gradual trial gradual trial gradual gradual trial gradual trial gradual gradual trial gradual gradu	Which be a Beth dimethed the before to Ye State of the before to Ye State of the before to Ye State of the St	breast? breast? breasts r(s), aum(s) t cancer; Don't knot lingmosts spc 30? spc 30. sp	The	was there you neede \( \) No \( \) What w \( \) Fan \( \) Cos \( \) Tra \( \) Oth \( \) Africa \( \) Africa \( \) Africa \( \) Cauca \( \) Hispan \( \) Ameri' \( \) Native \( \) Chunk \( \) Other \( \) How man \( \) Some \( \) Colleg \( \) Are you w be invited broast hea	questo for any tale to garage any tale to garage any tale to garage any tale to garage and tale tale and tale a	of of of other control other control of other control of other control of other control other control of other control of other control of other control of other control other c	the passes the passes the passes the passes the care; reasons or work assurant and a passes the pas	ast hea st 12 m but co st (fill in r response cove n defill in s d	testif be carry that apply the state of the same and the	
describe:  ### As a doctor ever to No Yes, If yes Righe brea Ris your mother, sist or any male relative e Flease measure for HLOV No take to question of the trade of trade of the trade of	No Sterfer best reference and reference are men reference and reference are reference and reference	d diagno ) Left b  aughte aughte en diag fes (pies ) data  res (pies ) data  nustrua ) 18  h?  our fir, riods s  equent  turally daind surger	sis?  reach reso, gran reach reso, gran reson re	Which because of the state of t	breast risk, auntis, risk, aun	The	was there you neede \( \) No \( \) What w \( \) Fan \( \) Cos \( \) Tra \( \) Oth \( \) Africa \( \) Africa \( \) Africa \( \) Cauca \( \) Hispan \( \) Ameri' \( \) Native \( \) Chunk \( \) Other \( \) How man \( \) Some \( \) Colleg \( \) Are you w be invited broast hea	questo for any tale to garage any tale to garage any tale to garage any tale to garage and tale tale and tale a	of of of other control other control of other control of other control of other control other control of other control of other control of other control of other control other c	the passes the passes the passes the passes the care of the passes	ast hea st 12 m but co st (fill in r response cove n defill in s d	testif be carry that apply the state of the same and the	
Has a doctor ever to No Yes, If yes a doctor ever to No Yes, If yes a fight here are any male relative expenses for HLMS or any male relative expenses for HLMS of the No Gaup to question to HI yes*, please fill out this table Mother? Sister(s)? Daughter(s)? Auntics? Grandmother(s)? Auntics? Grandmother(s)? Auntics? Male relatives for HLMS or auntics (ever been please master for HLMS or auntics) expenses master for HLMS or auntics (ever been please master for HLMS or auntics). The No Yes Has the No Yes Has years of the HLMS of the No Yes Has years of the HLMS of the HLMS of the No Yes Has to what years the HLMS of the HLMS	No	diagno laft base had been diag aughte en diag fes (pica les (pica	ghterise with or the late of t	Which because of the state of t	breast? risk, auntile to ancer?  Don't knother to ancer?  The transport to ancer?  The transport to ancer?  The transport to ancer?	The	was there you neede \( \) No \( \) What w \( \) Fan \( \) Cos \( \) Tra \( \) Oth \( \) Africa \( \) Africa \( \) Africa \( \) Cauca \( \) Hispan \( \) Ameri' \( \) Native \( \) Chunk \( \) Other \( \) How man \( \) Some \( \) Colleg \( \) Are you w be invited broast hea	questo for any tale to garage any tale to garage any tale to garage any tale to garage and tale tale and tale a	of of of other control other control of other control of other control of other control other control of other control of other control of other control of other control other c	the passes the passes the passes the passes the care; reasons or work assurant and a passes the pas	ast hea st 12 m but co st (fill in r response cove n defill in s d	testif be carry that apply the state of the same and the	
describe:  ### As a doctor ever to No Yes, If yes Righe brea Ris your mother, sist or any male relative e Flease measure for HLOV No take to question of the trade of trade of the trade of	No	of diagnosed by the base of diagnosed by the diagnosed by the base of diagnosed by the diagnosed by the diagnosed by the diagnosed by the diagnose	ghter's set fill out to ght out to the control of the control out to t	Which because of the state of t	breast? risk, auntile to ancer?  Don't knother to ancer?  The transport to ancer?  The transport to ancer?  The transport to ancer?	The	was there you neede \( \) No \( \) What w \( \) Fan \( \) Cos \( \) Tra \( \) Oth \( \) Africa \( \) Africa \( \) Africa \( \) Cauca \( \) Hispan \( \) Ameri' \( \) Native \( \) Chunk \( \) Other \( \) How man \( \) Some \( \) Colleg \( \) Are you w be invited broast hea	questo for any tale to garage any tale to garage any tale to garage any tale to garage and tale tale and tale a	of of of other control other control of other control of other control of other control other control of other control of other control of other control of other control other c	the passes the passes the passes the passes the care; reasons or work assurant and a passes the pas	ast hea st 12 m but co st (fill in r response cove n defill in s d	testif be carry that apply the state of the same and the	



#### Thank you to Honolulu Chapter of the ARCS Foundation!









