Hawai‘i Health Partners Webinar:
Adult Congenital Heart Disease

Tuesday, October 21, 2025

12:30pm—1:30pm via Zoom

HAWAI‘I PACIFIC HEALTH | HAWAI‘I HEALTH PARTNERS

CONFERENCE INFORMATION

GENERAL OBJECTIVES:

This offering is intended for Physicians, Nurses and other health care professionals.

By the end of the course, the participants will be able to:

1. Comprehend the changing demographics of adults with congenital heart conditions.
2. Delineate the unique medical challenges faced by adults with congenital heart disease.
3. Integrate ACHD care in primary and cardiology specialty care management.
4. Improve the quality of care for ACHD patients based on a multi-modality approach.

CONTINUING EDUCATION:

In support of improving patient care, Hawai'i Pacific Health is jointly accredited by the Accreditation Council for Continuing Medical Education (ACCME), the Accreditation Council for Pharmacy Education (ACPE), and the American Nurses Credentialing Center (ANCC), to provide continuing education for the healthcare team.

Hawai'i Pacific Health designates this live activity for a maximum of 1.0 *AMA PRA Category 1 Credits™* for physicians. Physicians should only claim credit commensurate with the extent of their participation in the activity.

Hawai'i Pacific Health designates this live activity for 1.0 contact hours for nurses. Nurses should only claim credit commensurate with the extent of their participation in the activity.

TO CLAIM CE:

Please note that in order to receive continuing education credits for this offering, you must:

- Be registered for this activity and Sign in.
- Claim credit commensurate with the extent of your participation in the activity.
  Speakers cannot claim credit for their own presentations.
- Complete and submit the evaluation survey that will be emailed to you within one week of the offering.
- Your CE certificate will be immediately available to you upon completion of your evaluation.

DISCLOSURE INFORMATION:

Per CE requirements, a disclosure report is included below listing any relationships that faculty, planners and others in control of educational content may have with an ineligible company. An Ineligible Company, as defined by the ACCME, is a company whose primary business is producing, marketing, selling, re-selling or distributing healthcare products used by or on patients.

The following Faculty, Planners, and Others in control of educational content have reported no relationships with any ineligible company as defined by the ACCME new "Standards for Integrity and Independence in Accredited Continuing Education":

Webinar Information

- You have been automatically muted
  - You cannot unmute yourself

- You will be able to submit questions via the Q&A section

- This webinar counts for HQIP credit for the measure HHP Network Engagement - Webinars

Adult Congenital Heart Disease
Opportunity for a state-wide collaboration

Andras Bratincsak, MD, PhD
Professor of Pediatrics, University of Hawaii, John A. Burns School of Medicine
Pediatric and Adult Congenital Cardiology, Hawaii Pacific Health Medical Group

October 21, 2025

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Disclosure

I do not have any financial conflict of interest to disclose.

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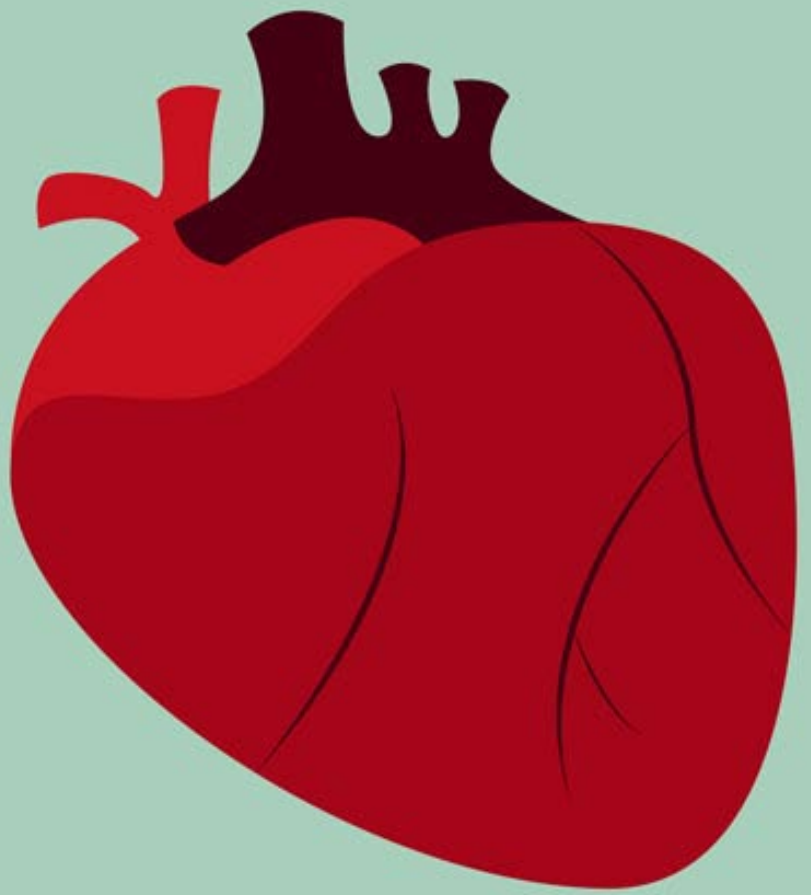
Objectives

- Describe the overall **disease complexity and survival** of adults with congenital heart conditions
- Discuss the importance of **continued health care** for adults with congenital heart defects
- Outline strategic **collaborative care model** for sophisticated ACHD care involving the primary care providers and cardiologists

CONGENITAL HEART DISEASE



1 in 100 live births

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Congenital Heart Disease in numbers

About 1% of live births have CHD

33000 children born with CHD annually in USA

190 children born with CHD annually in Hawai‘i

JOURNAL OF ADOLESCENT HEALTH
Improving the Lives of Adolescents and Young Adults
SAHM

Transition to adult heath care: setting the stage. Blum RV. J Adolesc Health. 1995;17:3-5.

International Journal of Epidemiology

Global birth prevalence of congenital heart defects. Liu et al., Int J Epidem. 2019;48:455-463..

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Natural history of CHD

Percentage of Total Mortality Occurring by One Month and One Year

	32		25	
	< 1 mo	< 1 yr	< 1 mo	< 1 yr
VSD	30	72	65	87
PDA	22*	58*	100†	
ASD secundum, primum or A-V canal	18‡§	53‡§	100 50	83
Pulmonic stenosis	40	70		
Aortic stenosis			30	70
Coarctation of aorta (preductal)		~66	87	100
Tetralogy of Fallot	14	63*	50	75**
Transposition of great arteries	51	83	40	95
Truncus arteriosus	>29††	78‡¶	100	
Tricuspid atresia	15‡	66	0	100
Pulmonic atresia: VSD			25	75
No VSD	63‡	88	50	75
Aortic and mitral atresia	94‡	100	83	100
Total anomalous pulmonary venous drainage	34	90	67	100

Average mortality of CHD by 1 year of age:

80%

Circulation
JOURNAL OF THE AMERICAN HEART ASSOCIATION

American Heart Association.
Fighting Heart Disease and Stroke

Natural history of congenital heart disease.
Hoffman JIE. Circulation. 1968;38:97-125.

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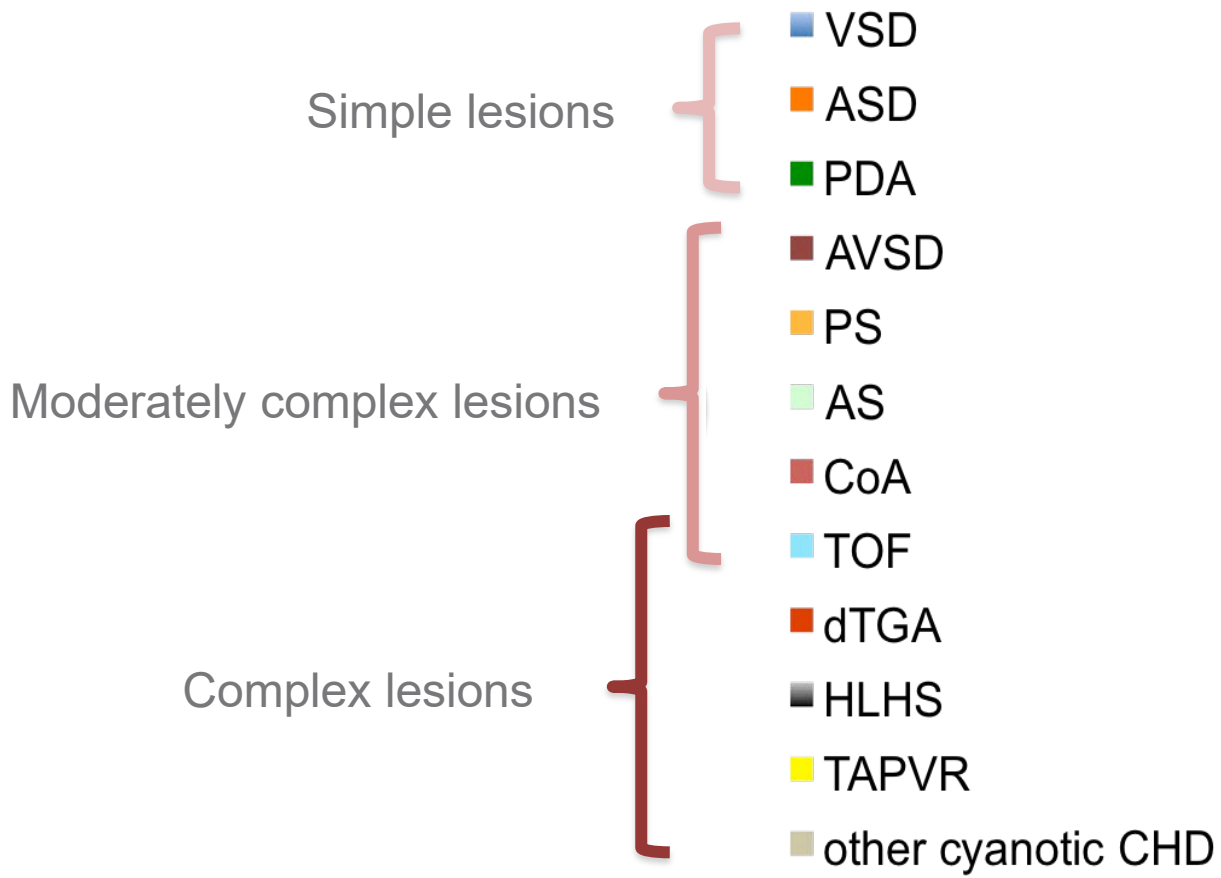
Complexity of the most common CHD



JACC
Journal of the American College of Cardiology

The incidence of congenital heart disease
Hoffman JIE, Kaplan S. JACC. 2002;39):1890-1900.

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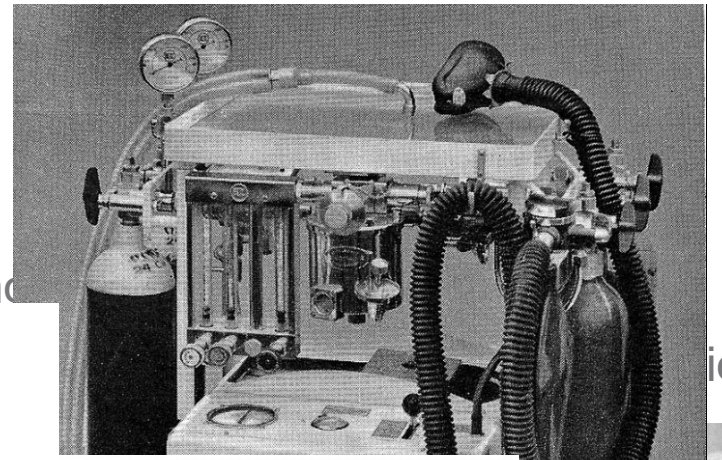
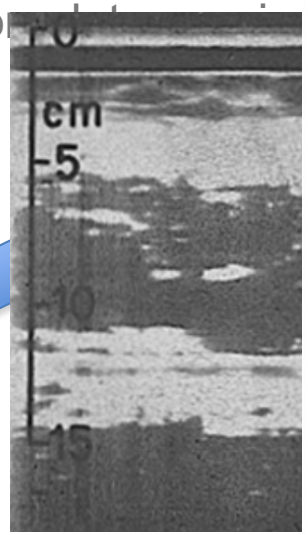
Improvement of survival





Early co ion

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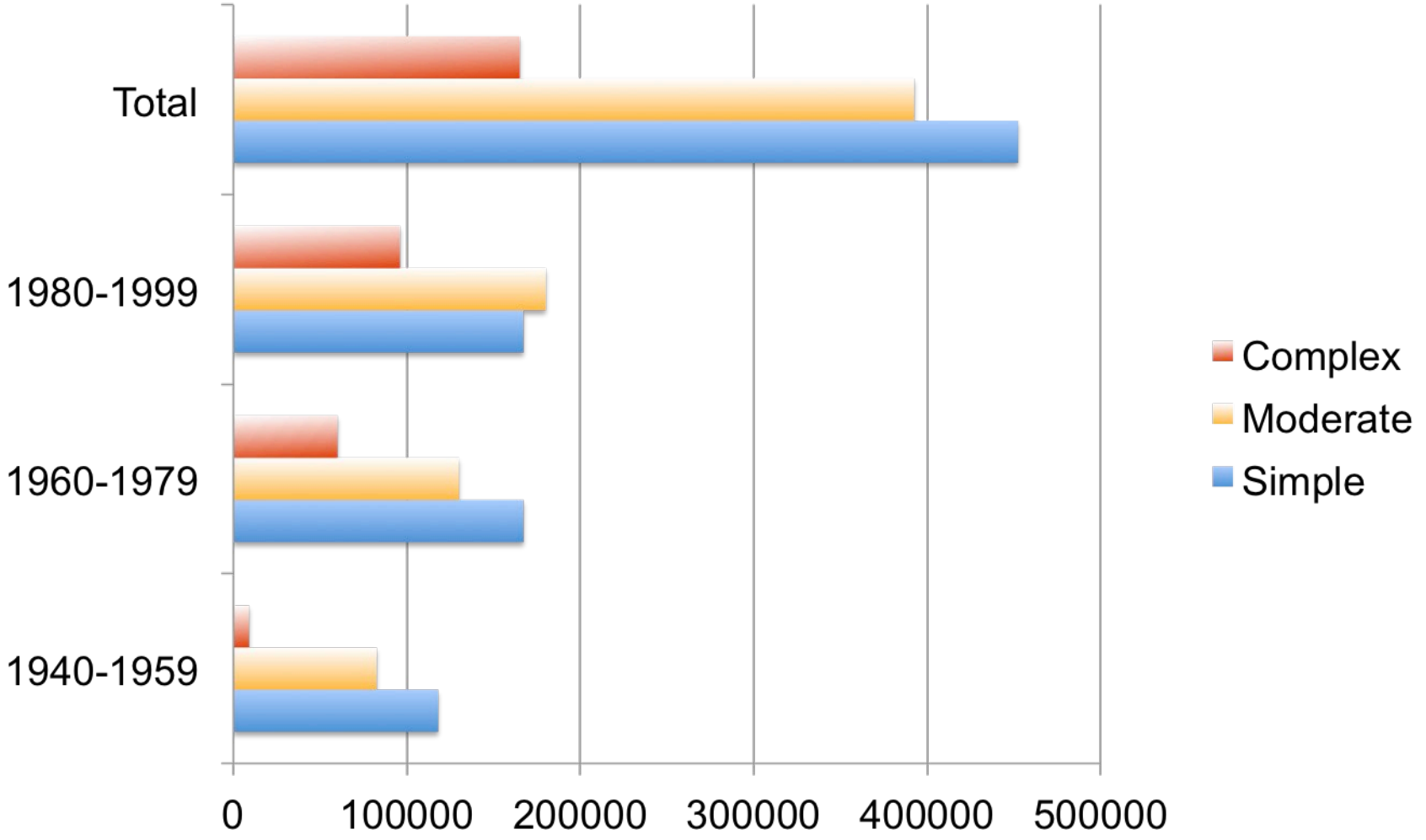
Survival of patients by 2000



Task force 1: The changing profile of congenital heart disease in adult life.
Warnes CA, et al. JACC. 2001;37:1161-1198.

JACC
Journal of the American College of Cardiology

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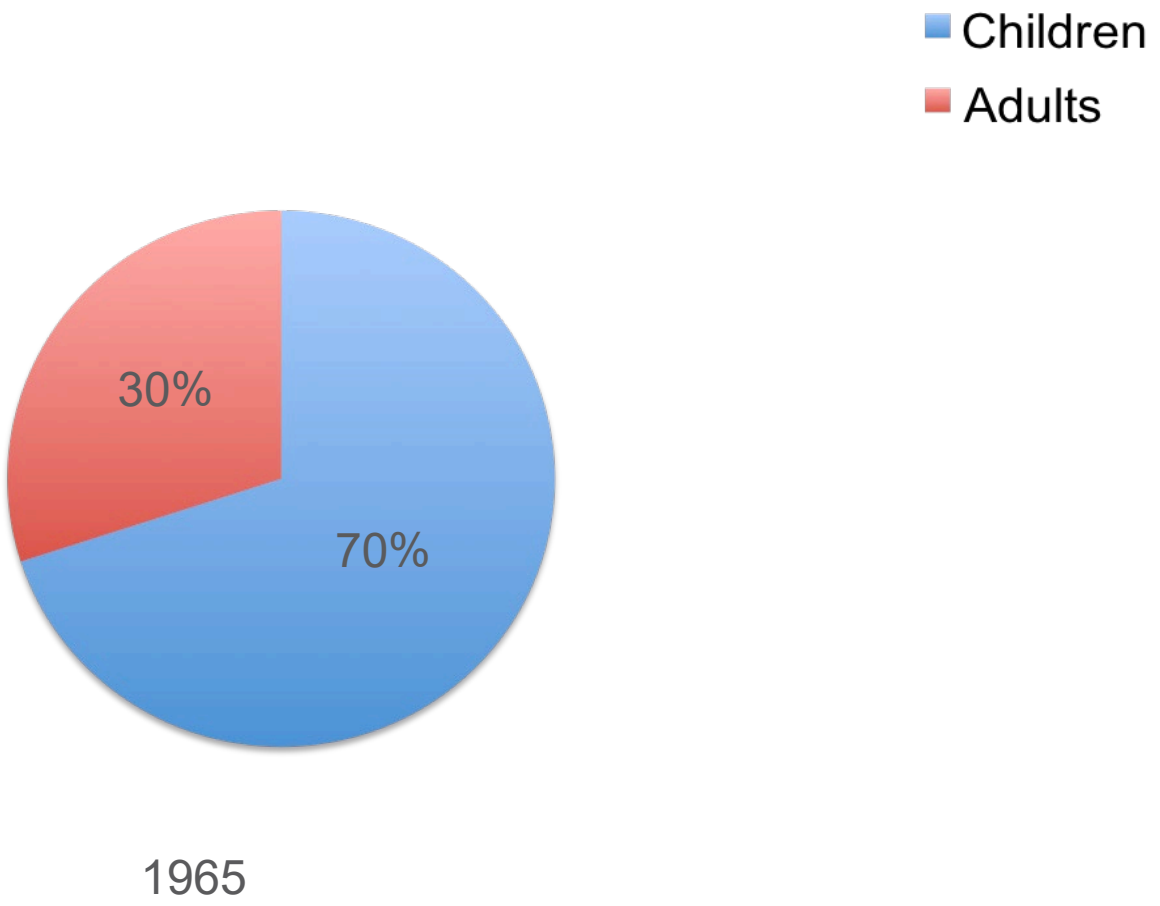
Distribution of children and adults with CHD



Report of the NHLBI on adult CHD.
Williams RG, et al. JACC. 2006;47:701-707.

JACC
Journal of the American College of Cardiology

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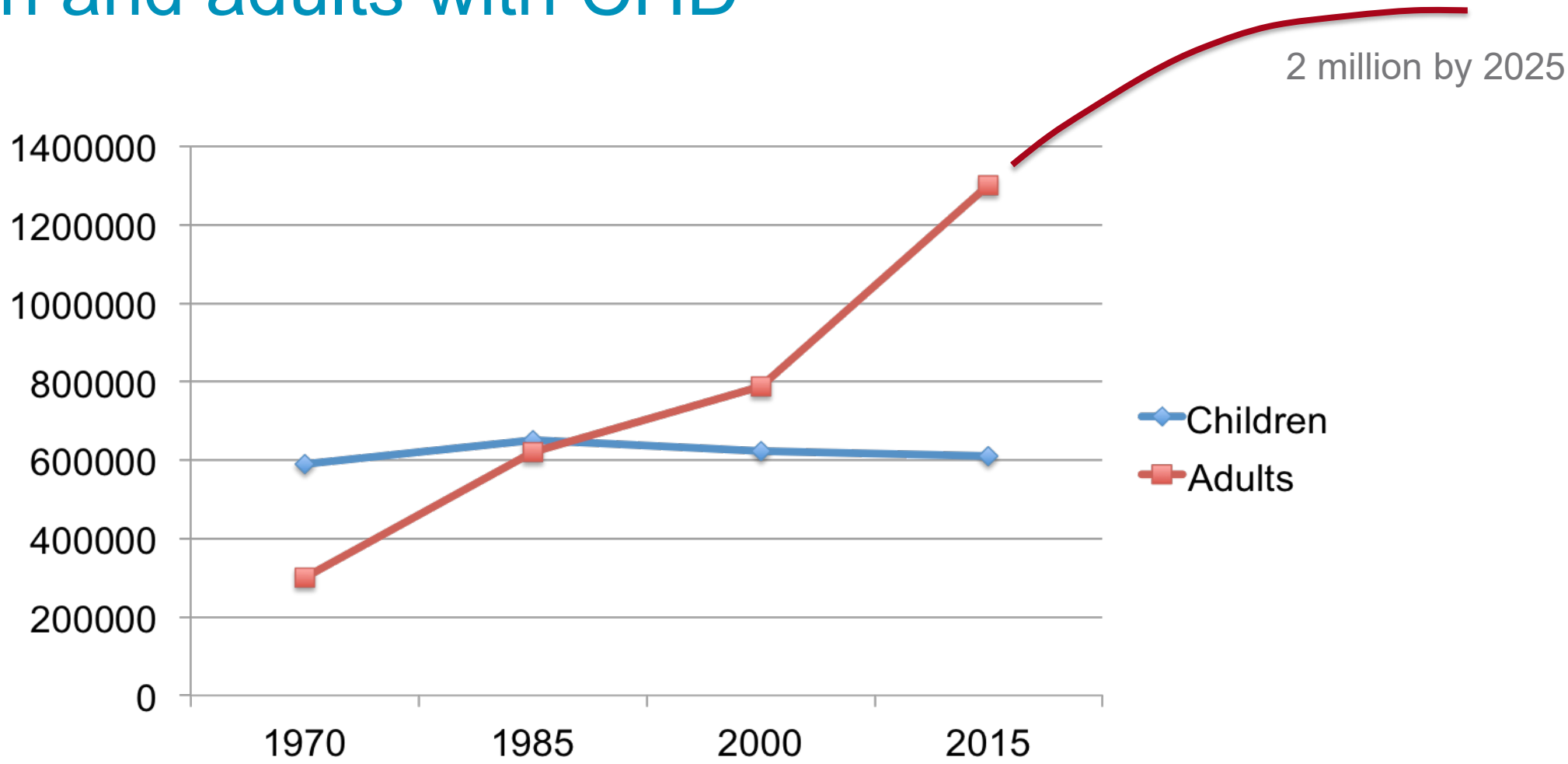
Children and adults with CHD



JACC
Journal of the American College of Cardiology

Task force 1: The changing profile of congenital heart disease in adult life.
Warnes CA, et al. JACC. 2001;37:1161-1198.

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Congenital Heart Disease in Hawai‘i

190 children born with CHD annually

90% of children survive to adulthood

170 children with CHD graduate annually

over 10000 ACHD patients by 2030

JOURNAL OF ADOLESCENT HEALTH
Improving the Lives of Adolescents and Young Adults
SAHM

Transition to adult heath care: setting the stage. Blum RV. J Adolesc Health. 1995;17:3-5.

International Journal of Epidemiology

Global birth prevalence of congenital heart defects. Liu et al., Int J Epidem. 2019;48:455-463..

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Tidal wave of ACHD patients

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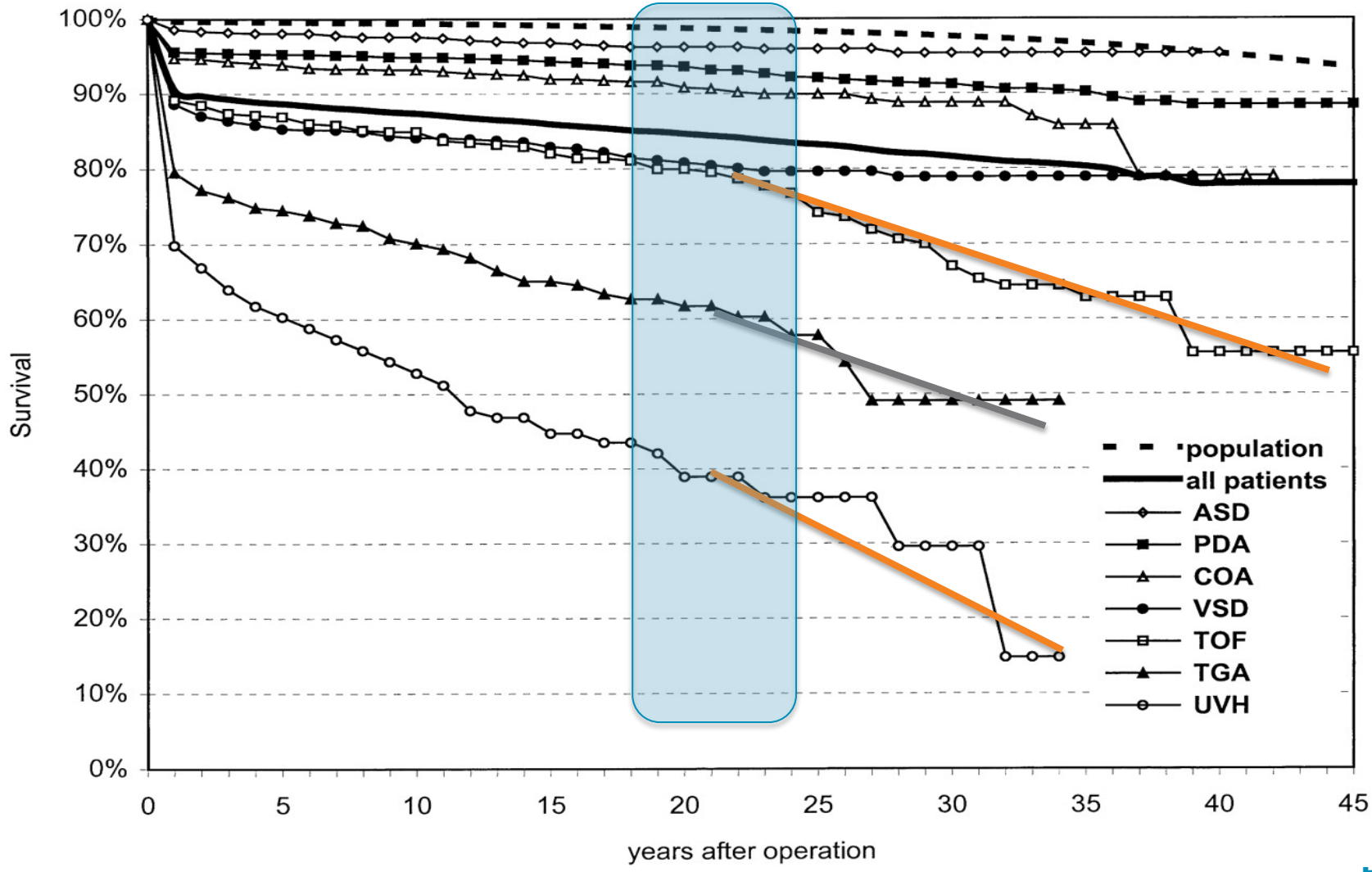
Survival of adults with CHD



JACC Journal of the American College of Cardiology

A population-based prospective evaluation of risk of Sudden cardiac death after operation for common CHDs.
Silka MJ, et al. JACC. 1998;32:245-251.

European Heart Journal
Journal of the European Society of Cardiology

Risky business: insuring adults with CHD.
Muhll IV, et al. Eur Heart J. 2003;24:1595-1600.

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The problem is …

There are many ACHD patients (1% of the population)
Their disease is complicated
They are sick to start with
Morbidity and mortality is significant
Suboptimal care costs a lot of money

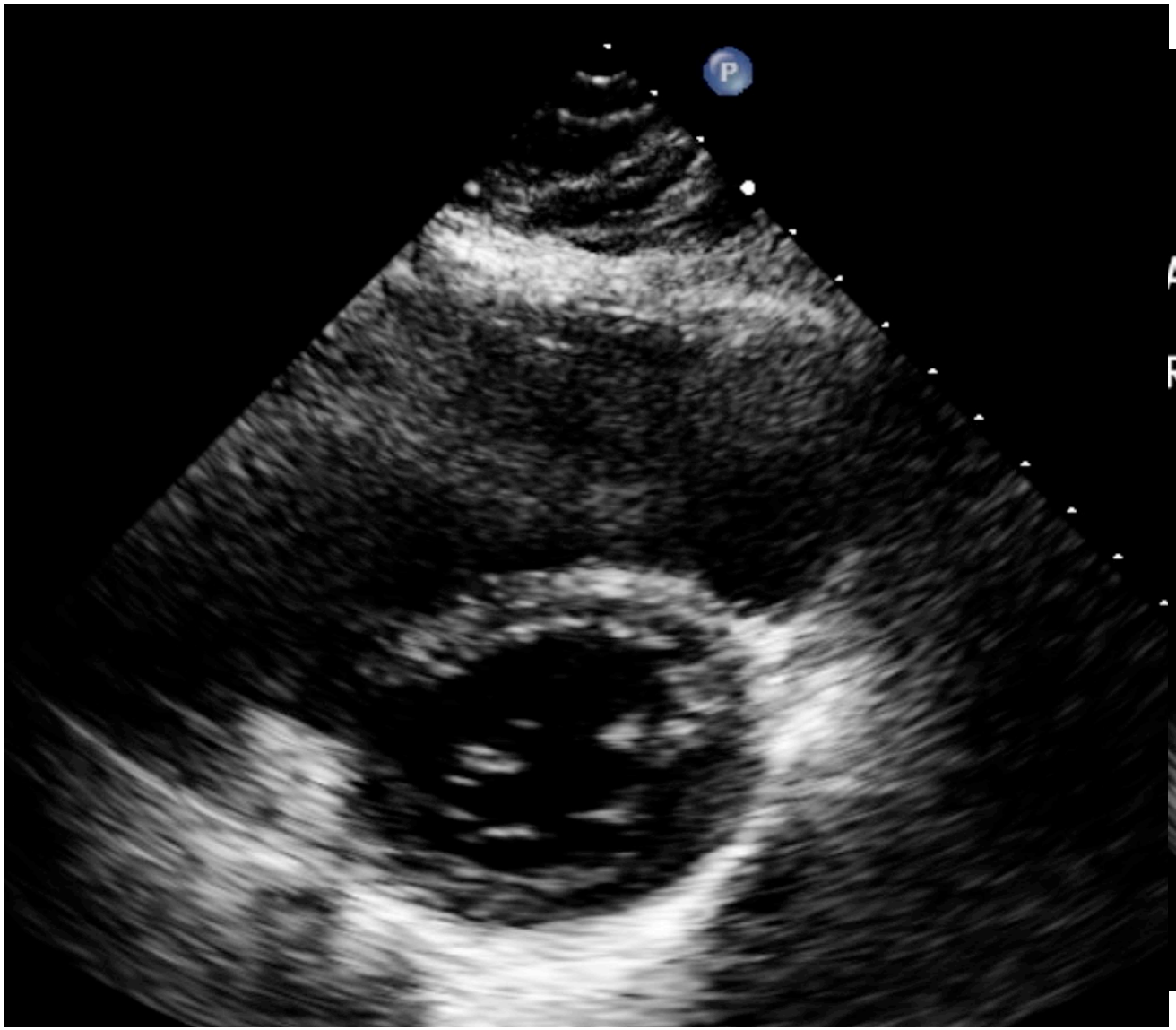
Case #1 – 44 y/o woman with dilated right ventricle

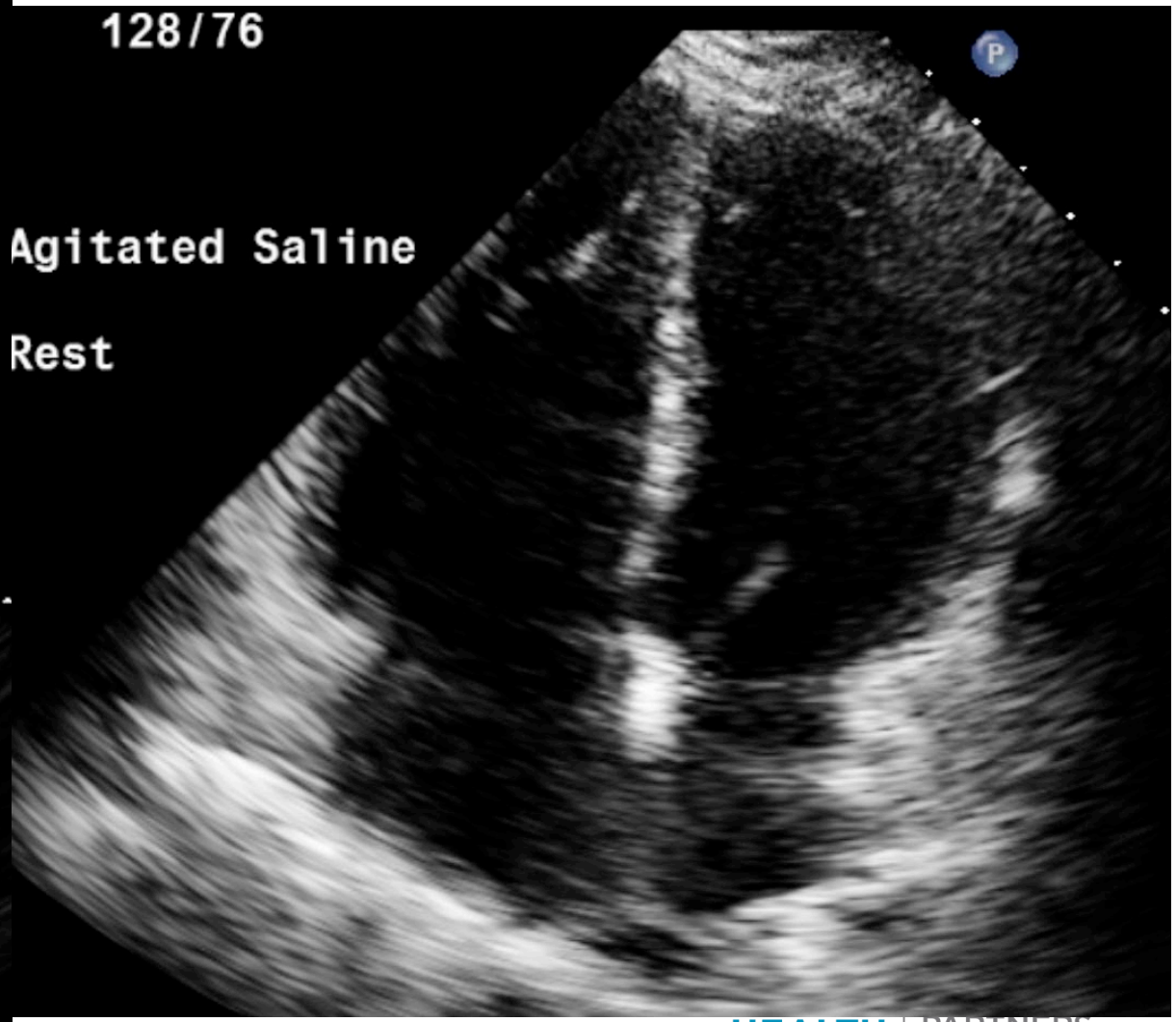
She was referred to cardiology, because of feeling tired with exercise at 27 years of age

Echocardiogram found dilated right ventricle
No ASD by TTE and TEE
No shunting seen
No evidence of pulmonary hypertension by cath

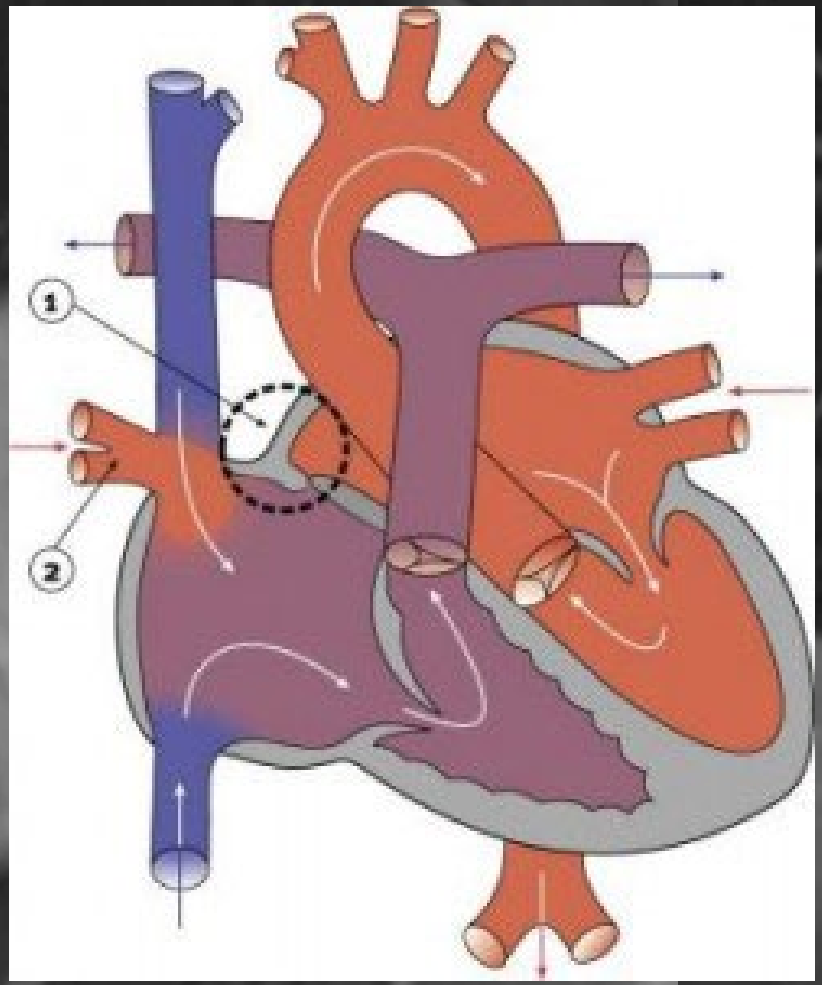
Fast forward 17 years – referred to ACHD clinic

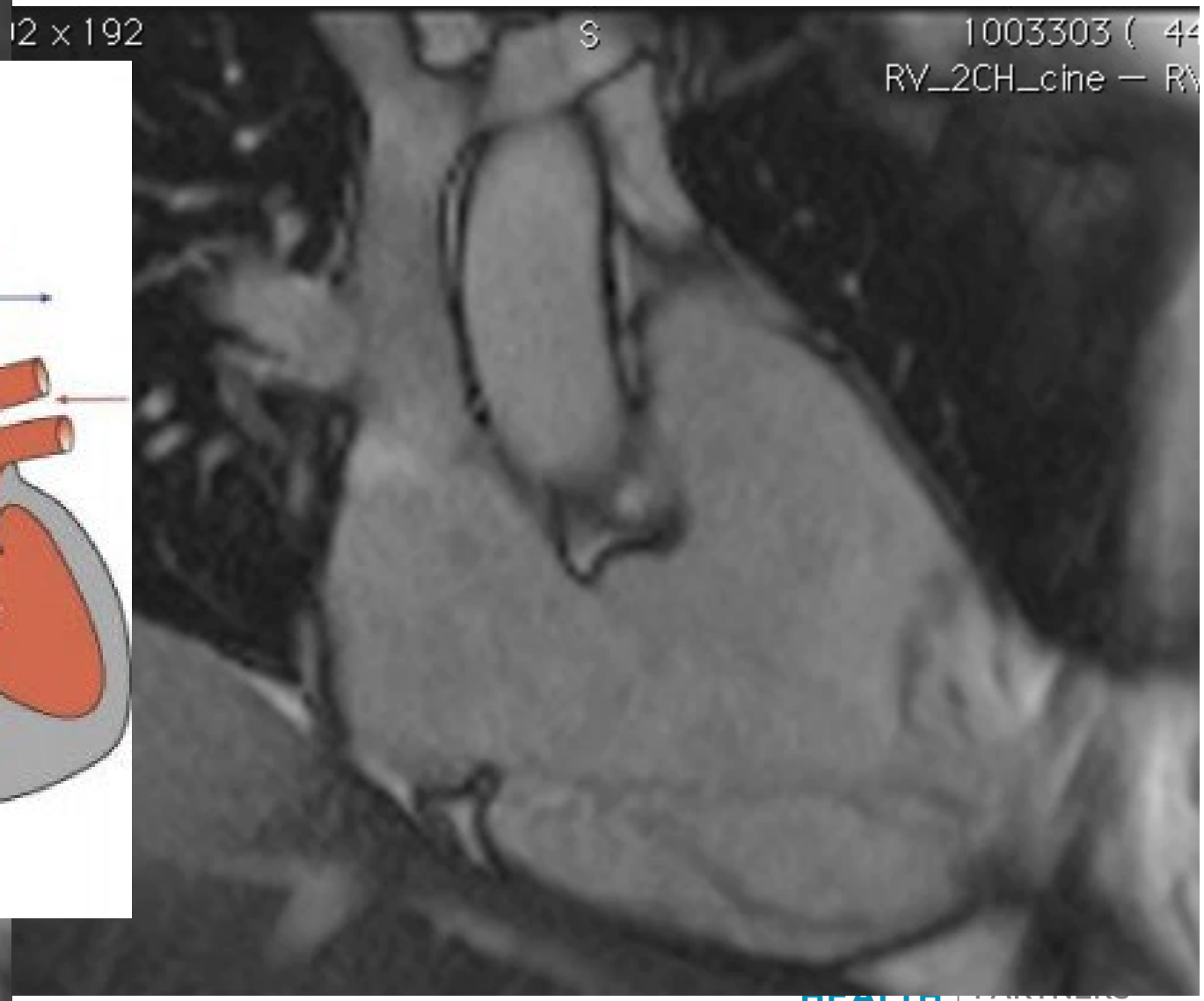
Case #1 – 44 y/o woman with dilated right ventricle





Case #1 – 44 y/o woman with dilated right ventricle





Case #1 – 44 y/o woman with dilated right ventricle

Underwent Warden procedure at 44 years of age: surgical channeling of partial anomalous pulmonary venous return and closing of atrial septal defect

Recovered in 3 months
Exercise intolerance improved dramatically

ACHD patients

Over 100 different congenital conditions

Tailored cardiology care with specific instructions about medical management and interventions

ACHD guidelines

ACHD is a guideline-directed subspecialty

Circulation

AHA/ACC GUIDELINE

2018 AHA/ACC Guideline for the Management of Adults With Congenital Heart Disease

A Report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines

Patients with ACHD who are cared for in ACHD centers have better outcomes than those cared for in centers without ACHD expertise,[S1.4-9] and this need for specialized care is noted

Circulation
Journal of the American Heart Association
American Heart Association.
Fighting Heart Disease and Stroke

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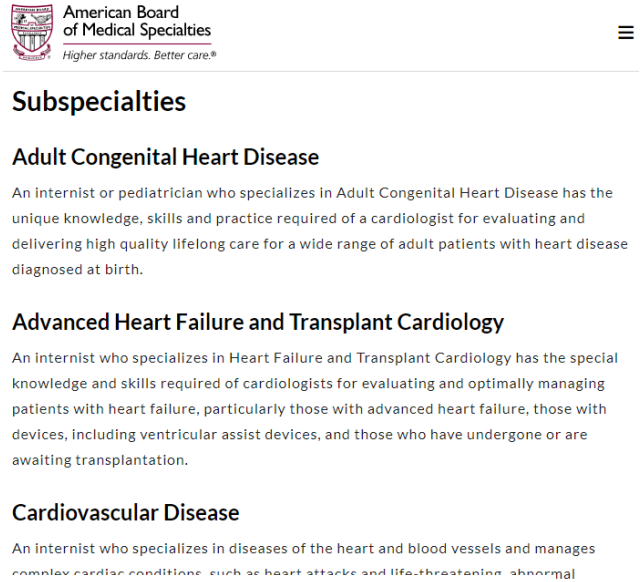
Recognition of Adult Congenital Heart Disease

American Board of Medical Specialties



ACC subgroup

ABIM Board certification

2 years of subspecialty training after cardiology

ACHD centers

ACHA accreditation

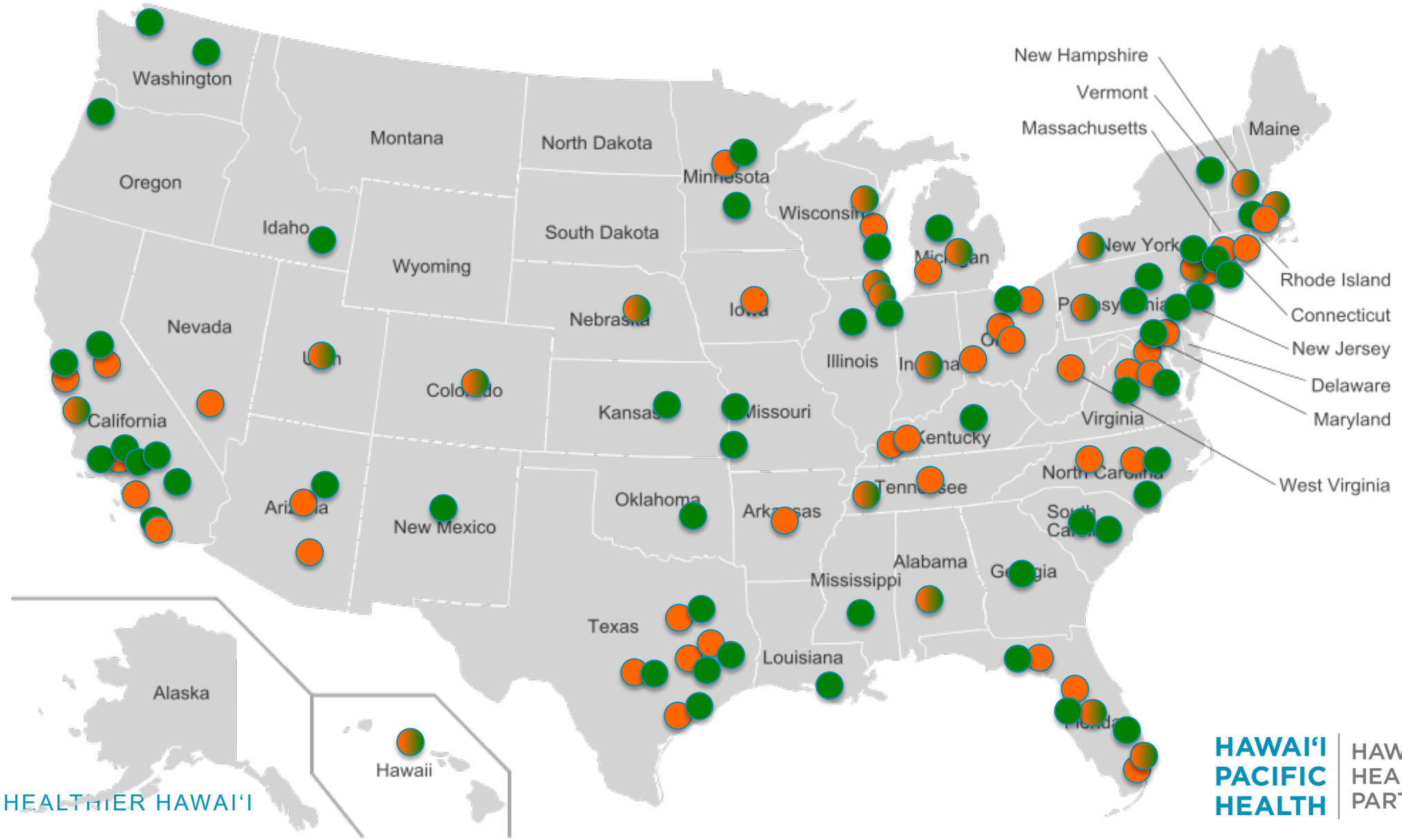
ACHA ACHD Accreditation P

Help the Adult Congenital Heart A
improve the quality of care for adu
heart disease.

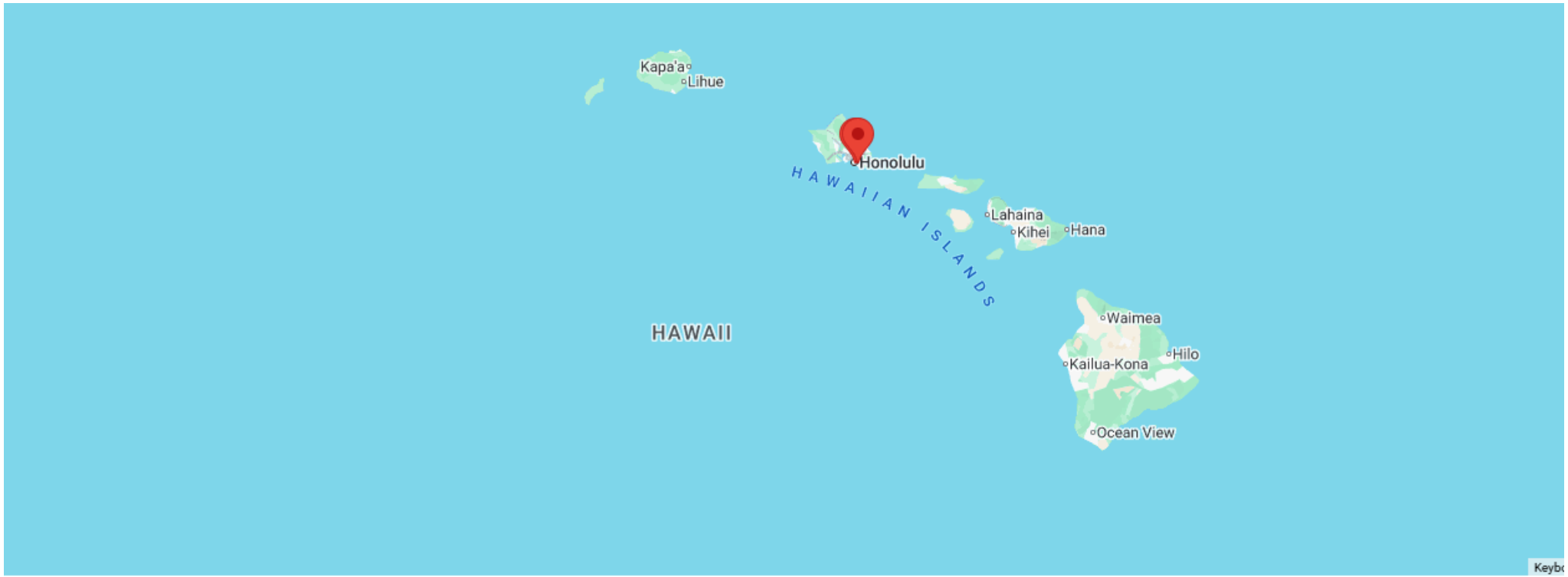
Adult Congenital Heart Association

ACHA ACHD PROGRAM CRITERIA Comprehensive Care Center
A. ACHD Cardiologist
B. ACHD Medical Program Director
C. Advanced Practice Nurse/Physician Assistant
D. Registered Nurse
E. Cardiothoracic Surgery and Cardiothoracic Intensive Care Unit
F. Heart Failure, Heart Transplant, Heart/Lung Transplantation
G. Interventional Cardiac Catheterization
H. Interventional Electrophysiology
I. Inpatient Services
J. Outpatient Services
K. Transitional Services
L. Patient-Centered Care
M. Echocardiography
N. Cardiac Magnetic Resonance Imaging
O. Cardiac Computed Tomography
P. Pulmonary Arterial Hypertension
Q. Exercise Testing and Cardiac Rehabilitation
R. Reproductive Services
S. Psychology and Social Work
T. Cardiac Anesthesia

ACHD centers across United States



ACHD center in Hawaii



ACHD Board Certified Physician

City	State	Institution	Medical Director
Honolulu	HI	ACHD Clinic of Hawaii Pacific Health Straub Medical Center (808) 522-4222	Andras Bratincsak, MD
Honolulu	HI	ACHD Clinic of Hawaii Pacific Health Satellite Clinic #1 - Honolulu, HI (808) 522-4222	Andras Bratincsak, MD

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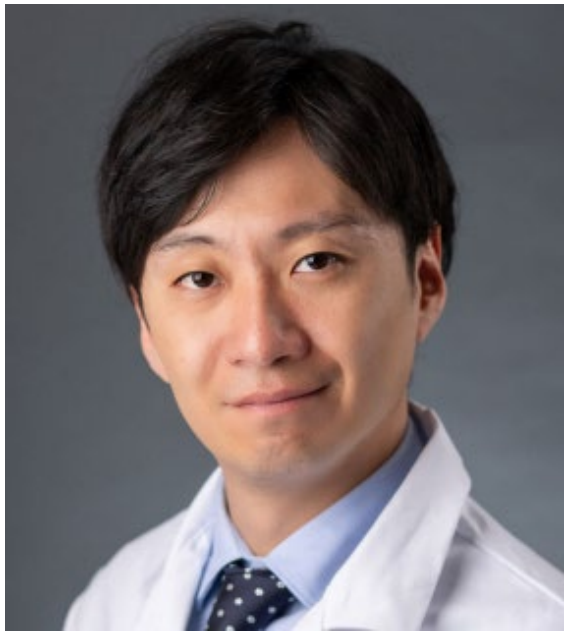
ACHD center in Hawaii






ACHD newsletter

ADULT CONGENITAL HEART DISEASE

HAWAII PACIFIC HEALTH MEDICAL GROUP

WHO WE ARE

JOHN VERULA, APRN

WHO WE ARE

ANDRAS BRATINCSAK, MD, PHD

WHO WE ARE

KIM KOYANAGI, APRN

PEDIATRIC HEART CENTER AT KMCWC - ADULT CONGENITAL HEART DISEASE

1319 Punahou St., Suite 950
Honolulu, HI 96826
T: (808) 983-8933
F: (808) 957-9770

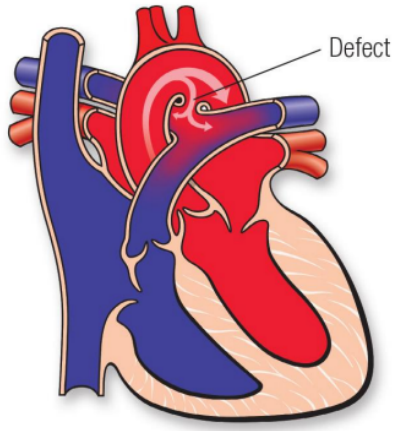
STRAUB BENIOFF HEART CENTER - ADULT CONGENITAL HEART DISEASE

888 S King Street
Honolulu, HI 96813
T: (808) 522-4222
F: (808) 522-4065

HEART CENTERS
HAWAIʻI PACIFIC HEALTH | KAPIʻOLANI | PALI MOMI | STRAUB BENIOFF | WILCOX

Creating a healthier Hawaiʻi

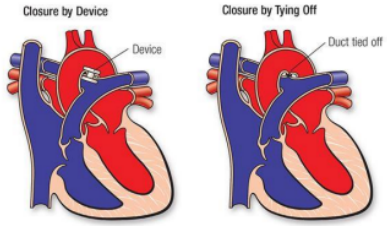
PATENT DUCTUS ARTERIOSUS



The persistence of a Patent Ductus Arteriosus (PDA) can present varying degrees of clinical significance, largely depending on its size. Due to the higher pressure in the aorta compared to the pulmonary arteries, a PDA can result in increased pulmonary blood flow. This can manifest as a characteristic systolic-diastolic machinery murmur at the left upper sternal border.

- **Small PDA**: Typically asymptomatic, producing only a murmur without clinical consequences.
- **Moderate to large PDA**: Excess pulmonary circulation may progress to volume overload, increasing the risk of left-sided heart failure and contributing to symptoms such as dyspnea and fatigue.
- **Unrecognized large PDA**: If undiagnosed in childhood, prolonged pulmonary overcirculation can lead to pulmonary arterial hypertension (PAH), which may become irreversible and life-threatening.
- **Silent PDA**: In cases where the PDA is exceptionally small, auscultation may not reveal a murmur. These are often incidental findings on echocardiography and generally do not require intervention.

Early identification and appropriate management of PDA in adulthood are critical for preventing complications such as heart failure, pulmonary hypertension, and Eisenmenger syndrome (where there is right-to-left shunt). Without intervention, larger PDAs place individuals at high risk for life-threatening complications. Early diagnosis and closure – either through catheter-based device closure or surgical ligation – can prevent many of these long-term consequences.



Transcatheter intervention is available locally at our Heart Center.

We are ready to serve you!

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Multidisciplinary team approach

ACHD cardiologist
Congenital heart surgeon
ACHD interventional cardiologist
Heart failure specialist
Electrophysiologist
Additional adult specialists (GI, pulm, neuro)
Psychologist, psychiatrist
Social services

Circulation
JOURNAL OF THE AMERICAN HEART ASSOCIATION
American Heart Association.
Fighting Heart Disease and Stroke

Best practices in managing transition to adulthood for adolescents with congenital heart disease: the transition process and medical and psychosocial issues.
Sable C et al. Circulation. 2011;123:1454–1485.

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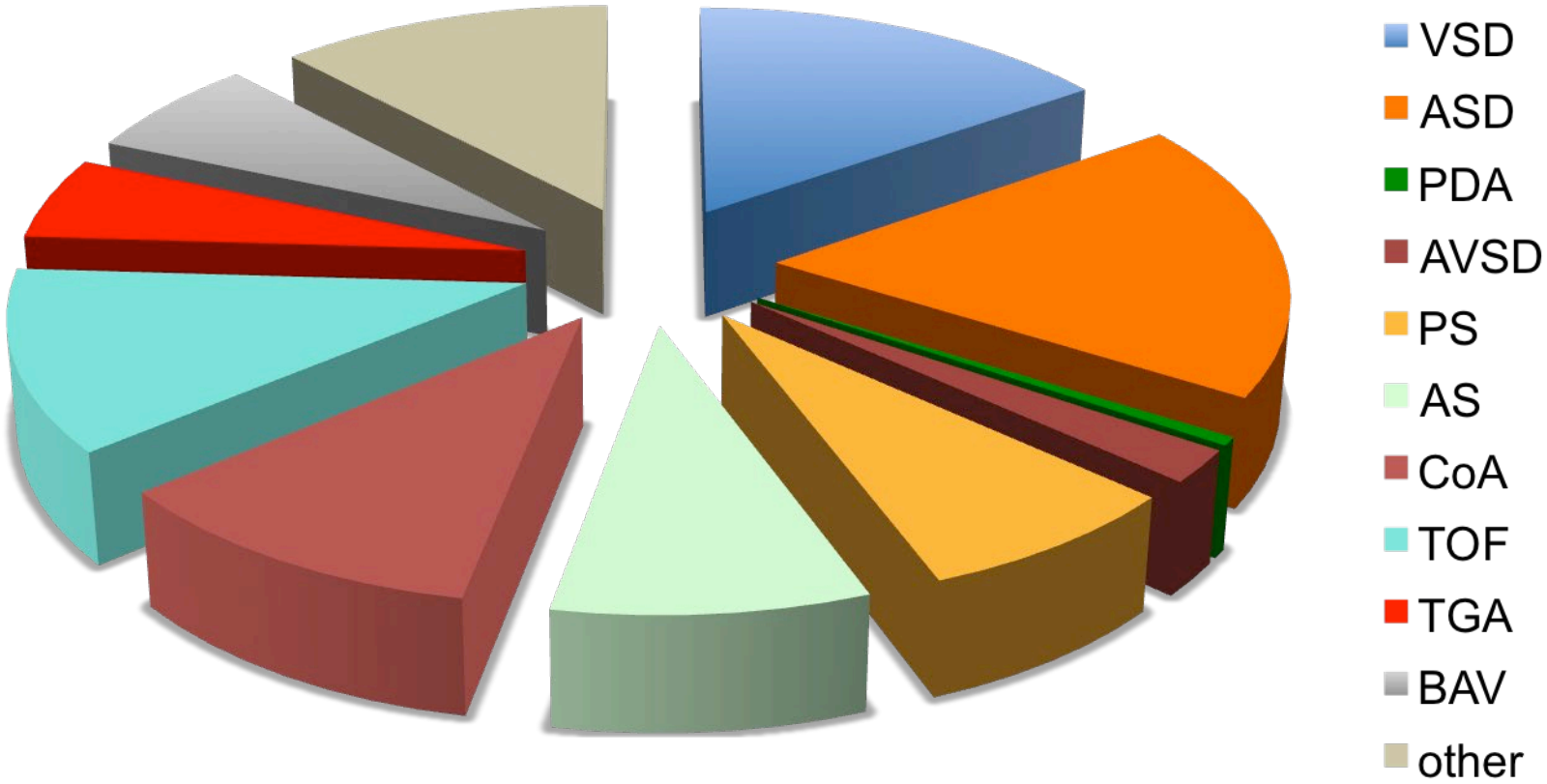
Distribution of adults with CHD



Circulation
Journal of the American Heart Association

American Heart Association.
Fighting Heart Disease and Stroke

Gender and outcome in adult congenital heart disease.
Verheugt CL, et al. Circulation. 2008;118:26-32.

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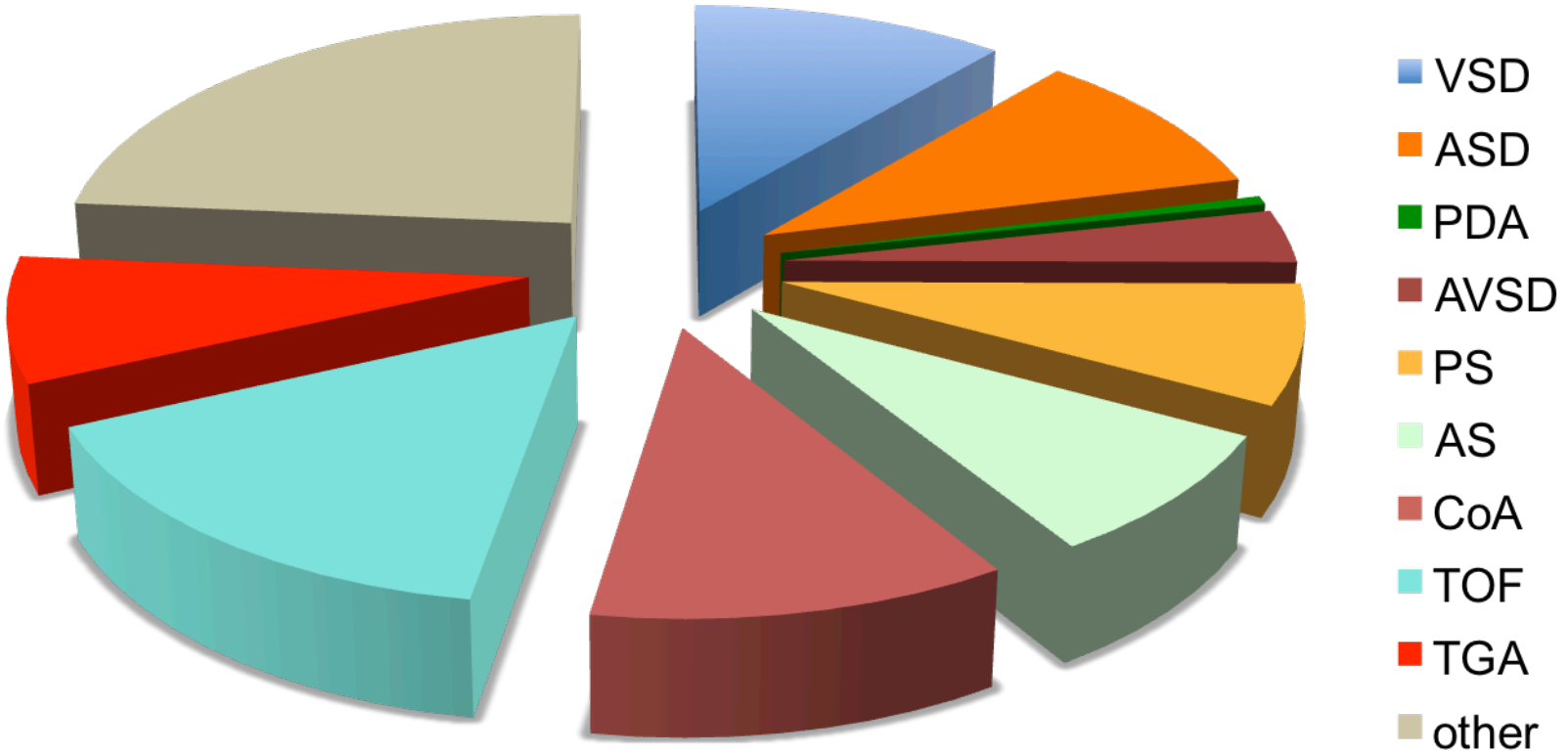
Distribution of visits with adult CHD patients



CONCOR, an initiative towards a national registry ...
Van der Velde ET, et al. Eur J Epidemiol. 2005;20:549-557.

Complexity & acuity –based visit schedule

Complexity 1: simple lesions without any complication (VSD, repaired VSD, small ASD, repaired ASD, repaired PAPVR) – annual telephone calls, q4years echo and monitor, q4years visit with APP

Complexity 2: simple lesions with mild complications (repaired VSD with mild AI, repaired ASD with residual shunting, repaired PAPVR with arrhythmia) – annual telephone calls, q2years echo and monitor, q2years visit with APP or q4years visit with ACHD specialist

Complexity 3: moderate lesions (D-TGA s/p ASO, TOF s/p repair, AVSD s/p repair with mild to moderate regurgitation) – annual telephone calls, q1year echo and monitor, q1-2years visit with APP and q2 years visit with ACHD specialist depending on disease severity

Complexity 4: moderate lesions with complications or complex lesions with no problems (D-TGA s/p Mustard, arrhythmias, Fontan in good shape) – q6months telephone calls, q6-12 months echo and monitor, q1years visit with APP and/or ACHD specialist depending on disease severity

Complexity 5: complex lesions with problems (failing Fontan, D-TGA in heart failure, systemic right ventricle in CHF) – q3months telephone calls, q3-6 months echo and monitor, q3-6 months visit with APP and/or ACHD specialist depending on disease severity

Complexity & acuity –based visit schedule

- Complexity 1: simple lesions without any complication (VSD, repaired VSD, small ASD, repaired ASD, repaired PAPVR) – annual telephone calls, q4years echo and monitor, q4years visit with APP
- Complexity 2: simple lesions with mild complications (repaired VSD with mild AI, repaired ASD with residual shunting, repaired PAPVR with arrhythmia) – annual telephone calls, q2years echo and monitor, q2years visit with APP or q4years visit with ACHD specialist
- Complexity 3: moderate lesions (D-TGA s/p ASO, TOF s/p repair, AVSD s/p repair with mild to moderate regurgitation) – annual telephone calls, q1year echo and monitor, q1-2years visit with APP and q2 years visit with ACHD specialist depending on disease severity
- Complexity 4: moderate lesions with complications or complex lesions with no problems (D-TGA s/p Mustard, arrhythmias, Fontan in good shape) – q6months telephone calls, q6-12 months echo and monitor, q1years visit with APP and/or ACHD specialist depending on disease severity
- Complexity 5: complex lesions with problems (failing Fontan, D-TGA in heart failure, systemic right ventricle in CHF) – q3months telephone calls, q3-6 months echo and monitor, q3-6 months visit with APP and/or ACHD specialist depending on disease severity

Complexity & acuity –based visit schedule

Complexity 1: simple lesions without any complication (VSD, repaired VSD, small ASD, repaired ASD, repaired PAPVR) – annual telephone calls, q4years echo and monitor, q4years visit with APP

Complexity 2: simple lesions with mild complications (repaired VSD with mild AI, repaired ASD with residual shunting, repaired PAPVR with arrhythmia) – annual telephone calls, q2years echo and monitor, q2years visit with APP or q4years visit with ACHD specialist

Complexity 3: moderate lesions (D-TGA s/p ASO, TOF s/p repair, AVSD s/p repair with mild to moderate regurgitation) – annual telephone calls, q1year echo and monitor, q1-2years visit with APP and q2 years visit with ACHD specialist depending on disease severity

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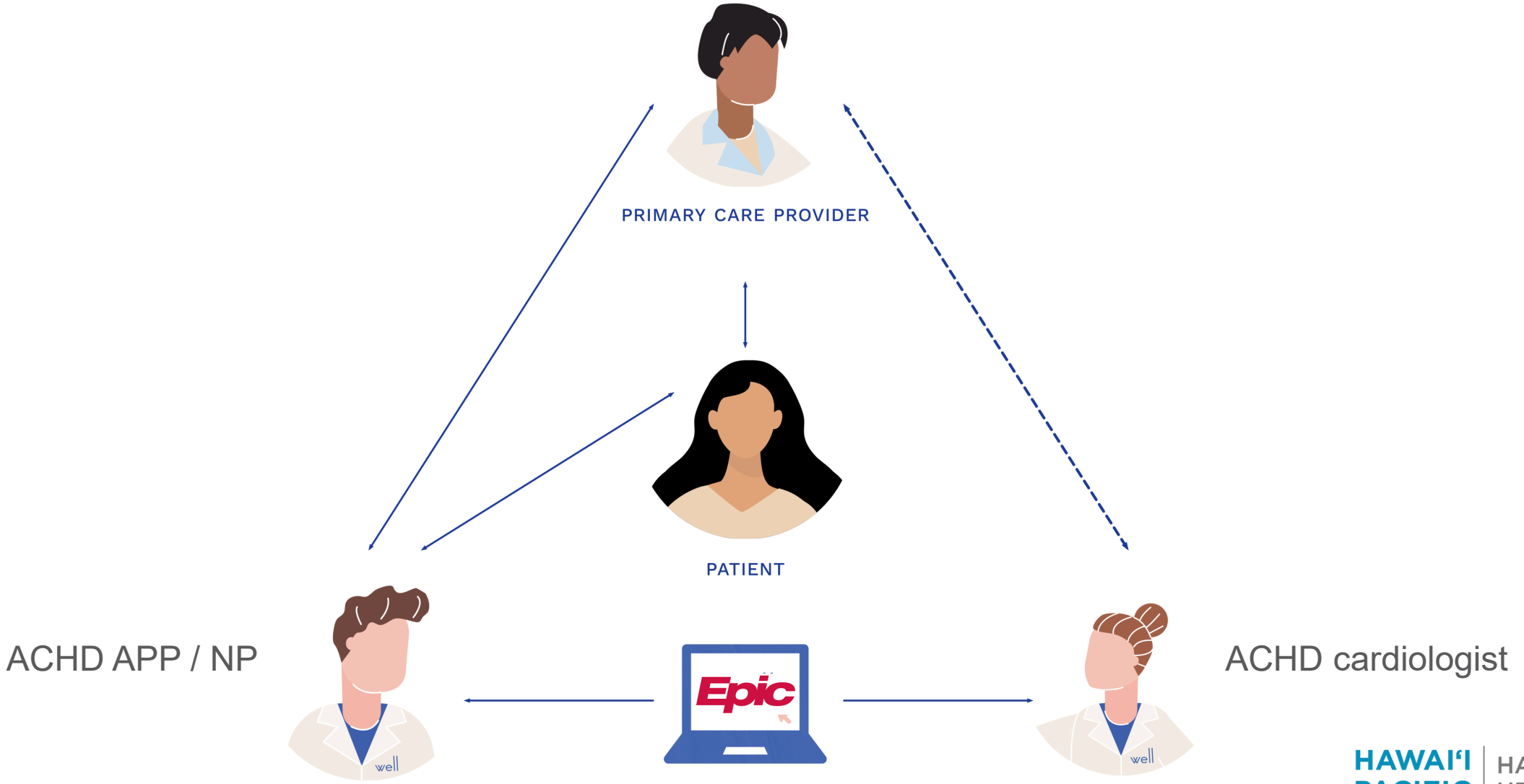
Collaborative Care Model



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What can we do at HPH?

Only ACHD center in Hawai‘i at Kapi‘olani Medical Center

Involve ACHD specialist for **every adult with CHD**

Share resources across facilities

Consultation services for all patients = collaborative care

Circulation
Journal of the American Heart Association
American Heart Association. Fighting Heart Disease and Stroke
ACC/AHA guidelines for the management of adults with congenital heart disease.
Warnes CA et al. Circulation. 2008;118:714–833.

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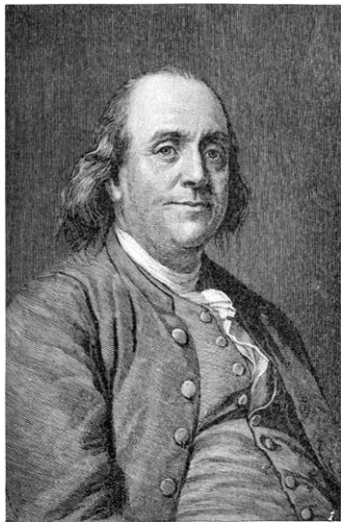
Summary

Survival to adulthood of children with CHD is excellent
Tsunami of ACHD patients is coming (1% of population)
Half of them have complex CHD requiring specialty care
Morbidity and mortality rates are higher then average
ACHD care improves survival and decreases cost

Collaborative care model is the only way to provide care for every ACHD patient in the state of Hawai‘i

“An ounce of prevention is worth a pound of cure.”

Benjamin Franklin



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Mahalo for listening!

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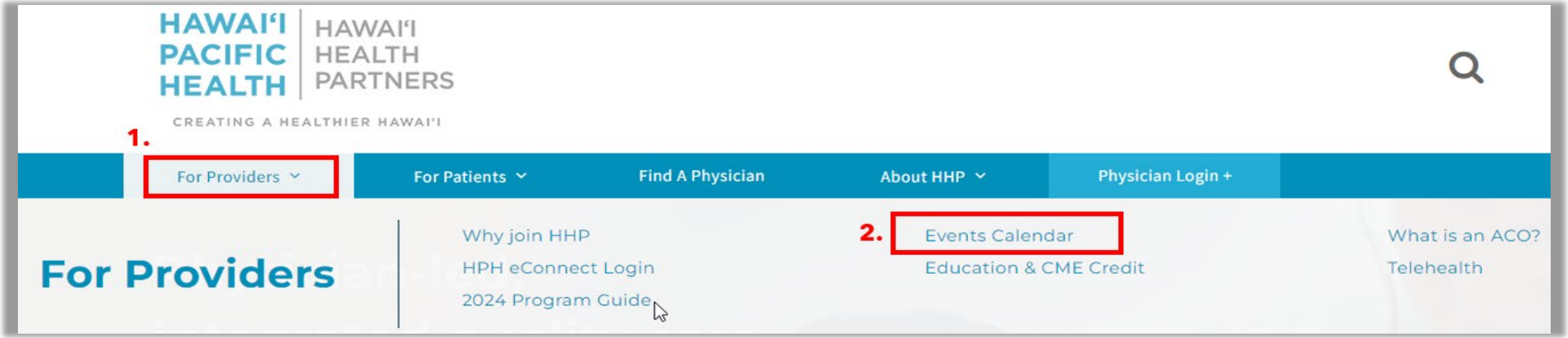
Next HHP Webinar: (for HQIP credit)

Thursday, November 6, 2025 | 5:30-6:30 pm
OpenEvidence
By Dr. Mark Baker

To view upcoming HHP webinars and future events, please visit our Hawai‘i Health Partners website for the “**Events Calendar**” from the “For Providers” dropdown.



For Specialists Only: (for HQIP credit)

- Annual Assessment of Chronic Conditions Presentation #2 coming October 31, 2025
- Deadline for completion: December 31, 2025
- This measure is separate from HHP Network Engagement – Webinars

For Eligible HHP Members:

ABMS Part 4 Continuing Certification Credit

- HHP members who met 50% of their potential HQIP earnings by September 30 were sent an attestation form
- Deadlines to complete:
  - October 31 for American Board of Obstetrics and Gynecology
  - November 26 for All Other Boards

Real Time Prescription Benefits

What is Real Time Prescription Benefits?

Real-Time Prescription Benefits (RTPB) provides the Prescriber with actionable price information that can be used in the prescribing decision and conversation with the patient.

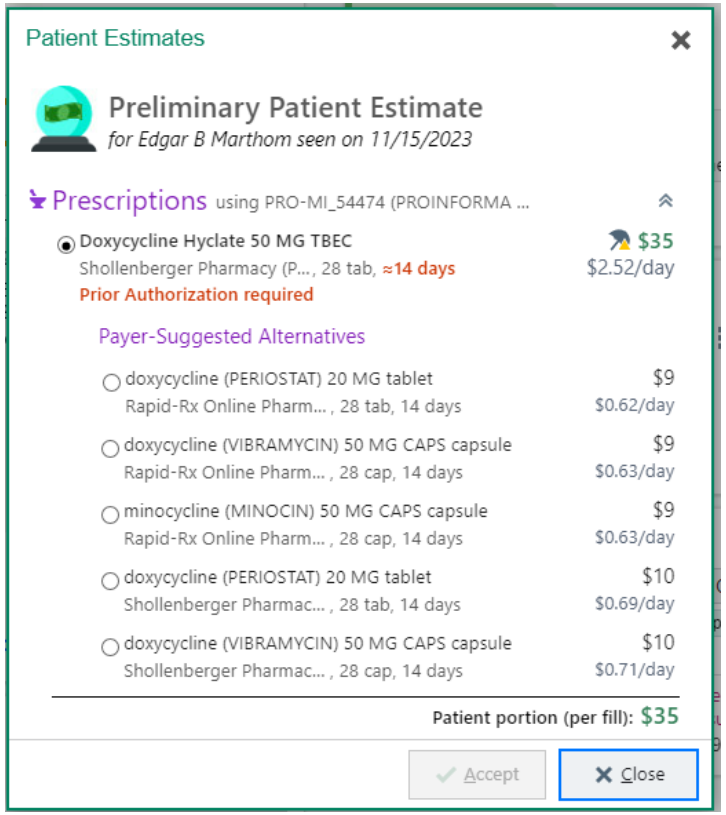
The price shown is the price that the patient can expect to pay. It is based on their individual drug plan and drug spend for the year. It calculates the cost that would be owed by the patient, with the cost of a selected drug and their most common alternatives, along with the price of those drugs listed by the pharmacy.

Benefits include:

Can see out of pocket cost	Can see cost of alternative medications including mail order	Quickly replace current medication with a cheaper alternative	See prior authorization requirements

Order Entry

1. Enter medication order
2. Select a pharmacy
3. Sign the order. Real Time Prescription Benefits functionality will automatically display if there is actionable information with lower cost alternatives, coverage status changes.



Cologuard Home Kit Campaign

HMSA in partnership with Exact Sciences

1. Campaign Overview:

- HMSA is conducting an EOY push to close colorectal cancer screening gaps for Medicare Stars. Eligible members are being sent Cologuard kits at no cost.
- Exact Sciences mailed member notification letters followed by at-home Cologuard kits to MA members with an open colorectal cancer screening gap.
- Notifications were sent to PCPs via fax between 9/24/25 and 10/2/2025.
- Test results will be faxed directly to the attributed provider, and any positive results will require a follow-up colonoscopy.
- Patients are also contacted directly by Exact Sciences regarding their results
  - HHP has requested HMSA to send over patient-level reporting with results

2. Questions/Feedback:

1. Please email info@hawaiihealthpartners.org

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Medication Adherence Outreach

HMSA with Curant Health

Key Takeaways:

- Outreach to MA patients started on Monday, 10/6/25
- Curant Health will not change or discontinue a patient's medication(s). Curant Health will contact the patient's provider for any medication concerns
- An opt-out option for providers is not available at this time
- For any questions or concerns please email, info@hawaiihealthpartners.org

Program Focus: Medicare Stars Program – Medication Adherence Measures

Program Overview

HMSA is partnering with Curant Health to support Medicare members to improve medication adherence and overall health outcomes at no additional cost to the member. Curant Health's clinical team consists of nurses, pharmacists, medical assistants, and pharmacy technicians who help identify barriers to adherence, provide education, help resolve therapy gaps, and coordinate care with providers. Outreach is tailored based on clinical need, ranging from digital engagement to personalized care management.

Key Program Support

- **Digital messaging:** Education, adherence support, and preventive care.
- **Personalized outreach:** Based on clinical risk to influence member behavior.
- **Ongoing support:** Barrier resolution, education, and encouragement.
- **Dedicated care manager:** For members needing additional support.
- **Motivational interviewing:** Addresses challenges to adherence.
- **Pharmacist support:** Reviews medication and provider coordination.

What Providers Should Expect

- **Member outreach:** Curant Health may contact members by phone, text, email, or mail to provide education, refill reminders, and health support.
- **Care coordination:** Curant Health may reach out to providers to resolve therapy gaps or coordinate care.

Provider Action

If members have questions about the program, please refer them to Curant Health at:

1 (866) 202-7294 (9 a.m.-6 p.m.)

TTY: 711

Curant Health Georgia, LLC, an independent company providing a medication adherence program for HMSA Medicare Advantage members on behalf of HMSA.

Thank you for joining us!

- A recording of the meeting will be available afterwards
- Unanswered question?
  - Contact us at Info@Hawaiihealthpartners.org

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