



HOME OF SIDNEY KIMMEL MEDICAL COLLEGE

Introduction	R
Often sudden cardiac death is the result of an underlying inherited cardiac abnormality.	I
The AHA recommends a 14-element pre- participation cardiovascular screening of all competitive athletes, which includes direct questioning for a family history of cardiomyopathies. Adherence to this recommendation is variable, with adequate family history omitted in up to 80% of cases.	C T A A T C C C C C
Objectives	r
Evaluate the prevalence of a positive family history when asked specifically about cardiac conditions associated with premature sudden cardiac death.	
Methods	
From October 2012 to November 2018, we performed cardiac screens aimed at high	

school athletes. This involved a health questionnaire, physical examination and 12lead electrocardiogram.

As part of the questionnaire, we asked specifically about a family history of

- •Hypertrophic or dilated cardiomyopathy
- •Arrhythmogenic right ventricular cardiomyopathy
- Long QT syndrome
- Brugada syndrome
- •Catecholaminergic polymorphic ventricular tachycardia
- •Wolff-Parkinson White

## SIMCN'S Heart

## The Importance of Family History in a Pre-Participation Screening Program: Results From a Large US Cardiac Screening Program

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## Results

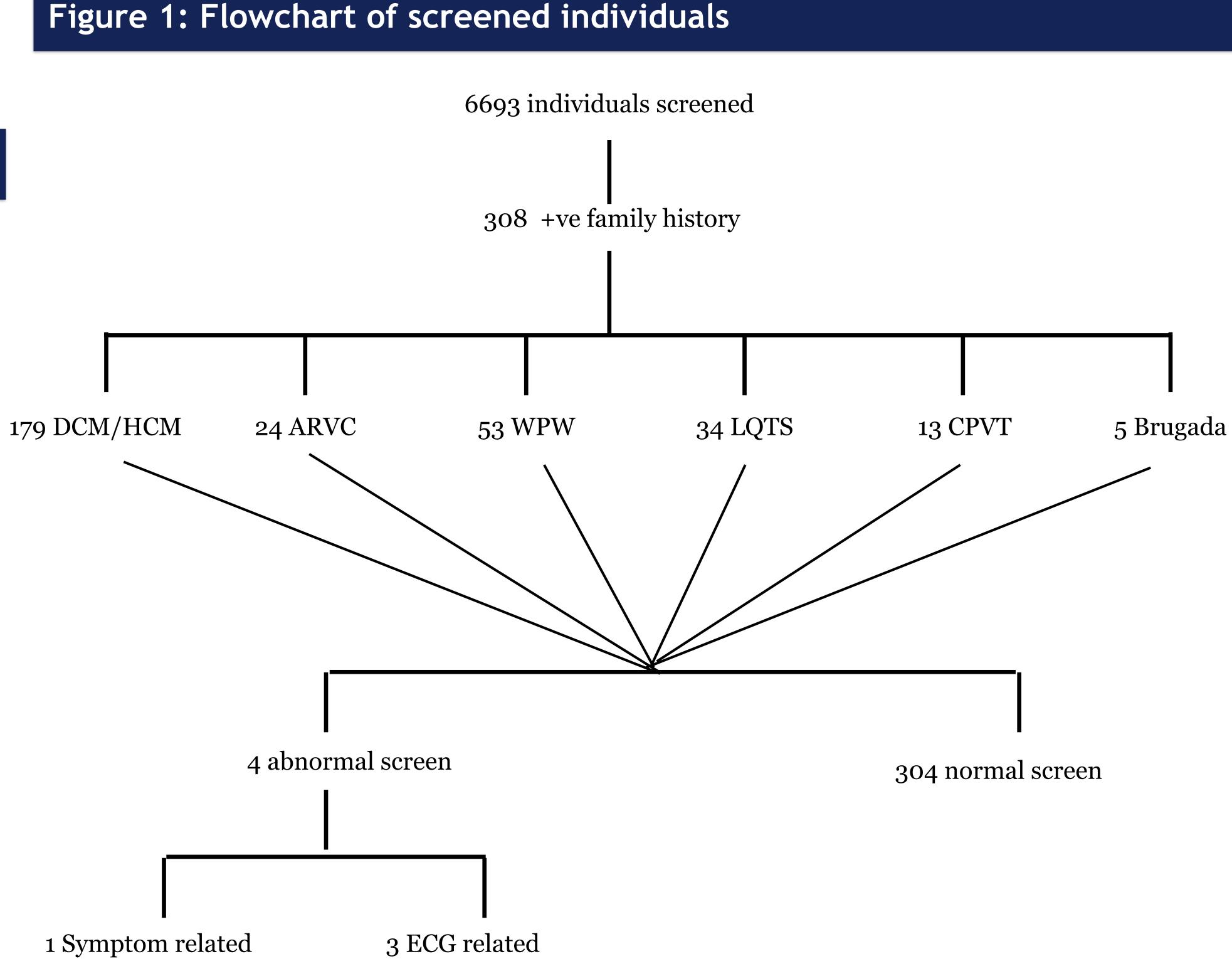
In the six-year period, 6973 individuals underwent cardiovascular screening.

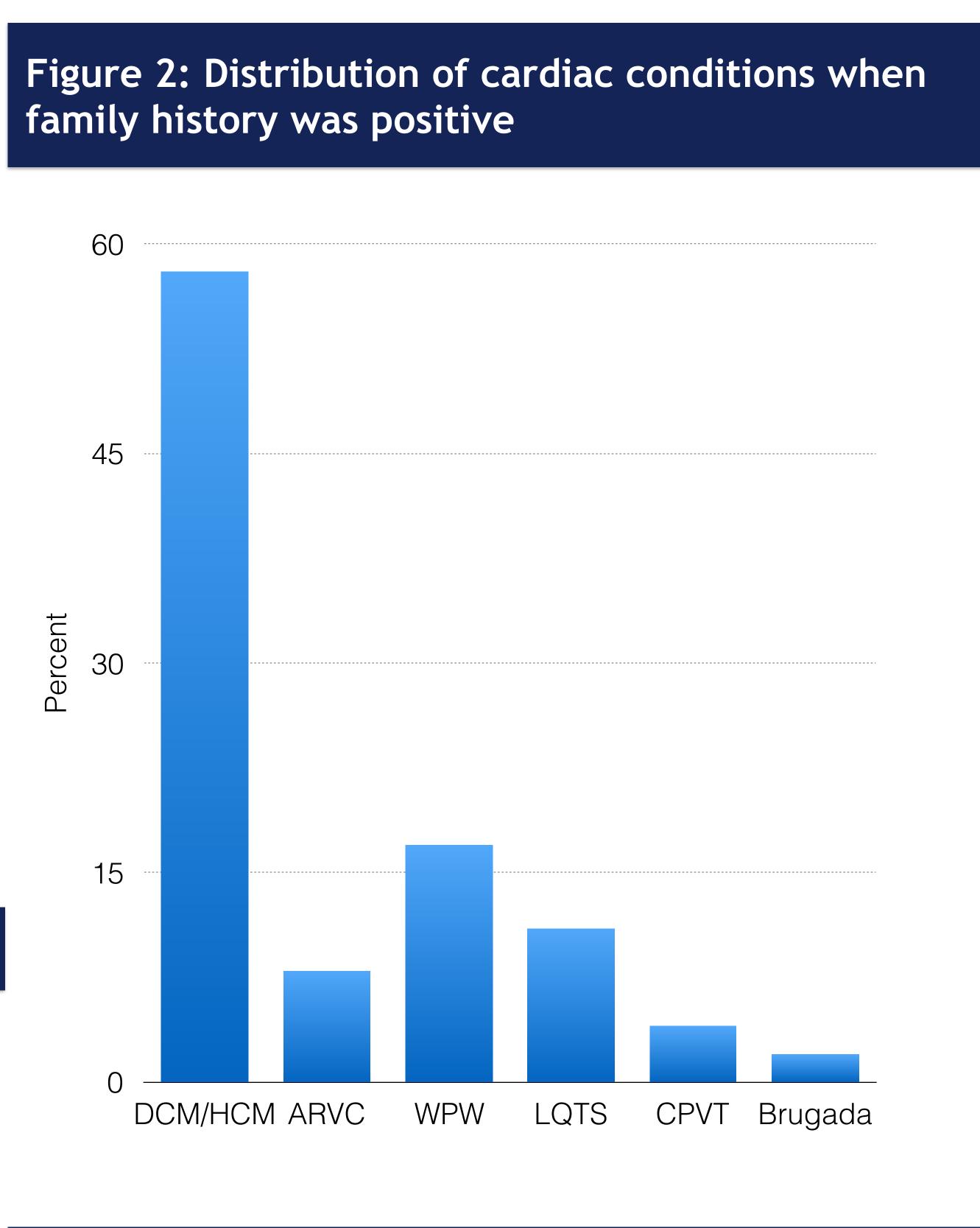
Of these, 61% were male and the median age was 17 (IQR 15-19).

The majority (83%) was Caucasian, followed by Asian/Pacific Islander (5%), African-American (4.9%), and Hispanic (3.1%).

A positive family history for a condition associated with sudden cardiac death was reported in 4.4% (308). These comprised of dilated or hypertrophic cardiomyopathy (2.57%), ARVC (0.34%), WPW (0.76%), LQTS (0.49%), CPVT (0.19%) and Brugada syndrome (0.07%).

Of those that had a positive family history, four had an abnormal screen that required further investigation





## Conclusions

The pre-participation screening for cardiovascular disease is crucial to reduce the risk of sudden cardiac death.

Discerning the family history during this screening is a cost-effective tool but of limited value when used in isolation.

Identifying the most high-yield components of a cardiovascular screening program is an important consideration in the debate regarding pre-participation screening of young athletes.

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