

Implementing SMART on FHIR at Duke Health

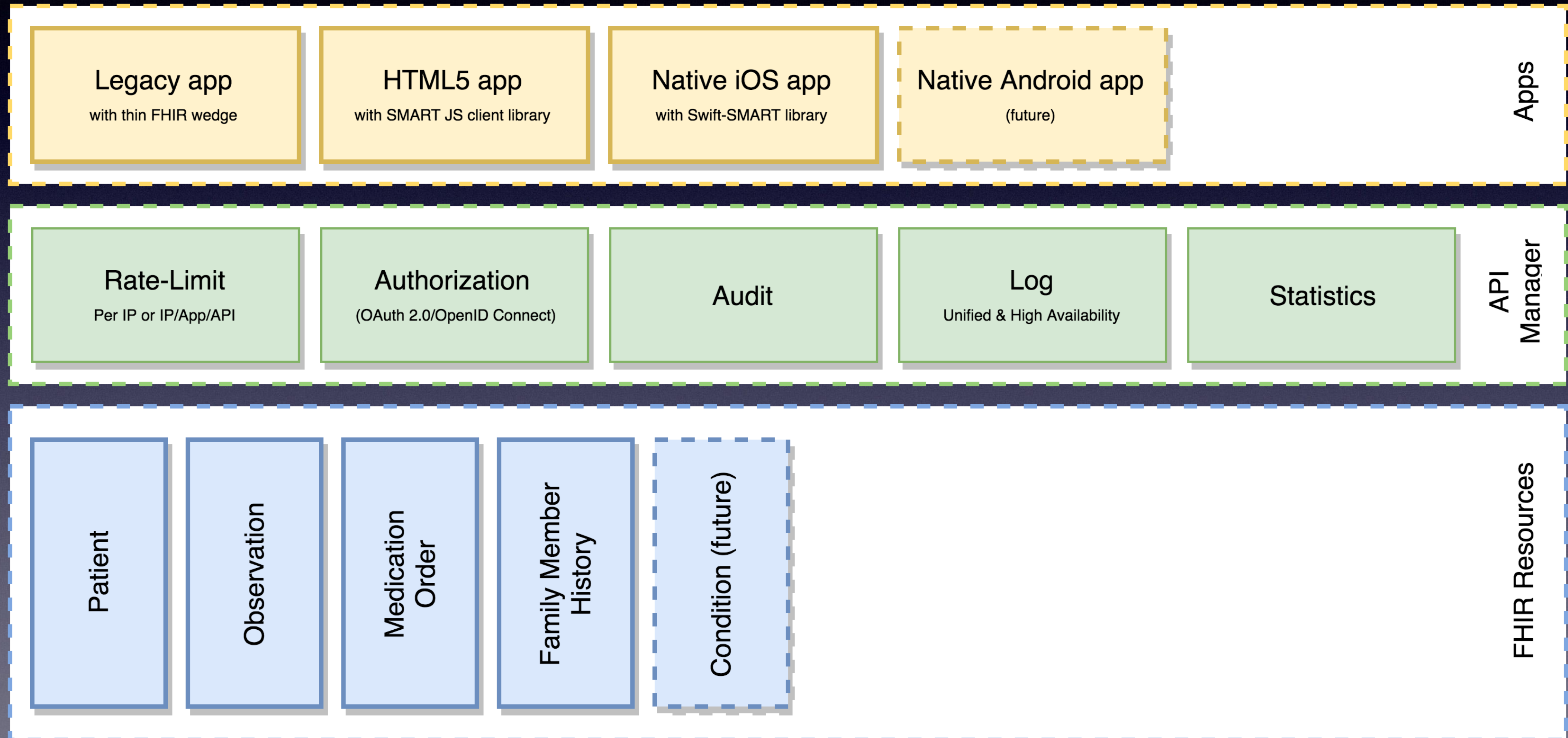
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SMART/FHIR at Duke

Duke Apps Supporting Features



The Need



Provider-Centric

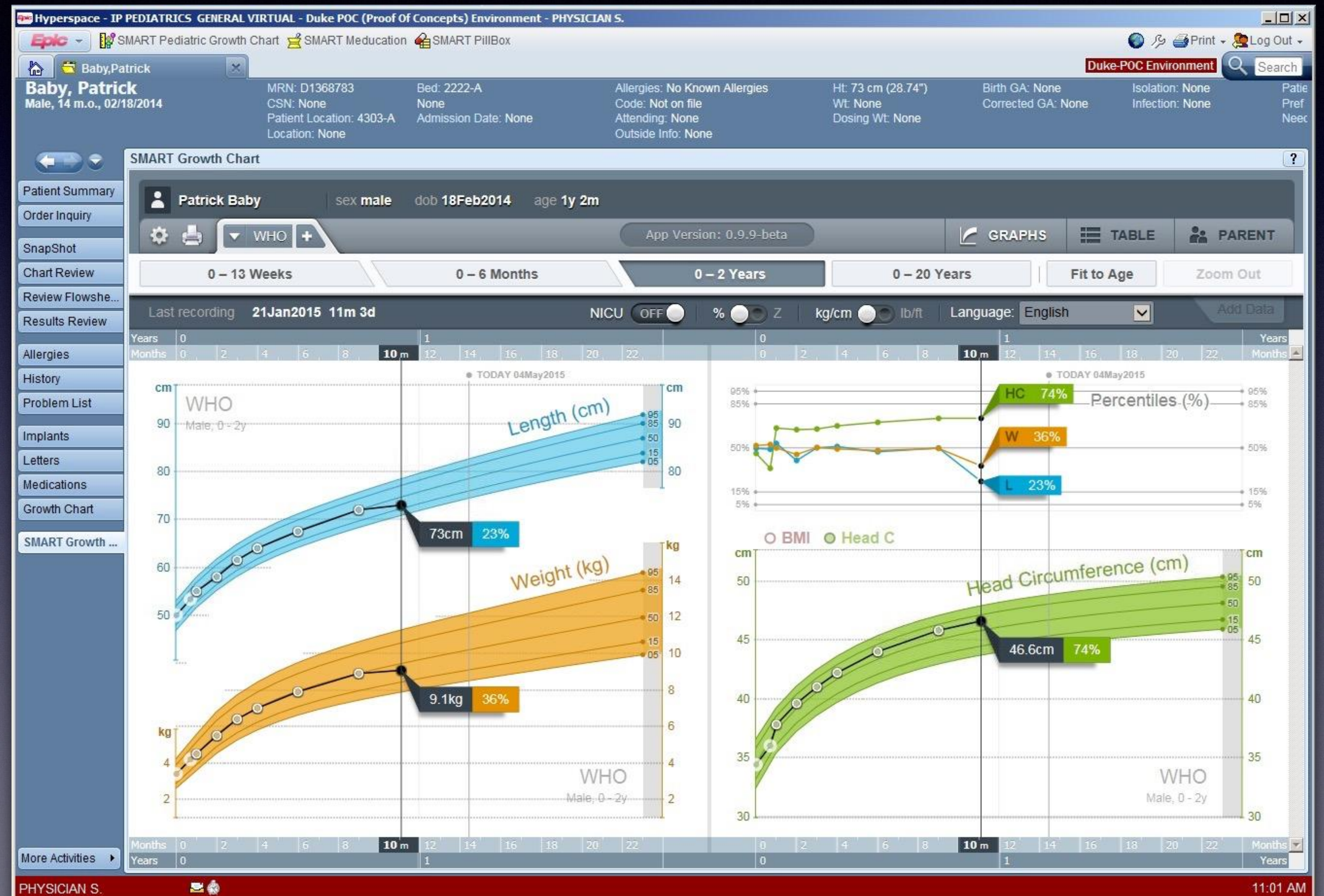


Patient-Centric

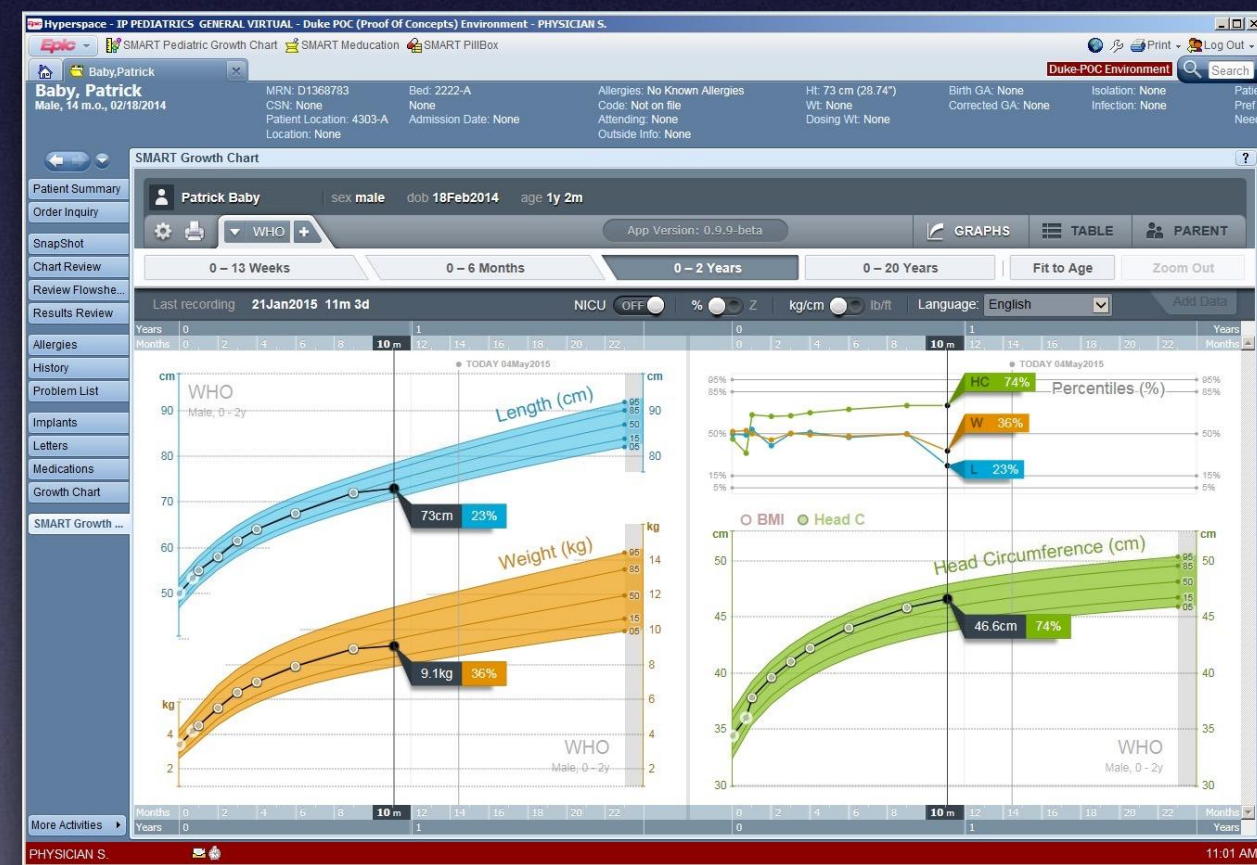


Provider-Centric

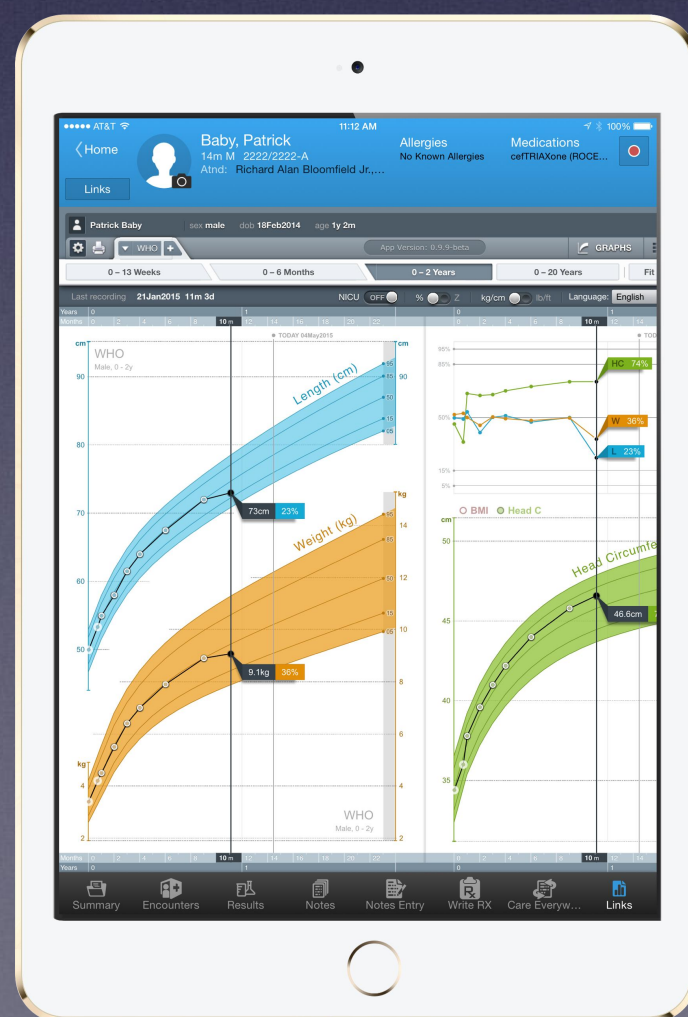
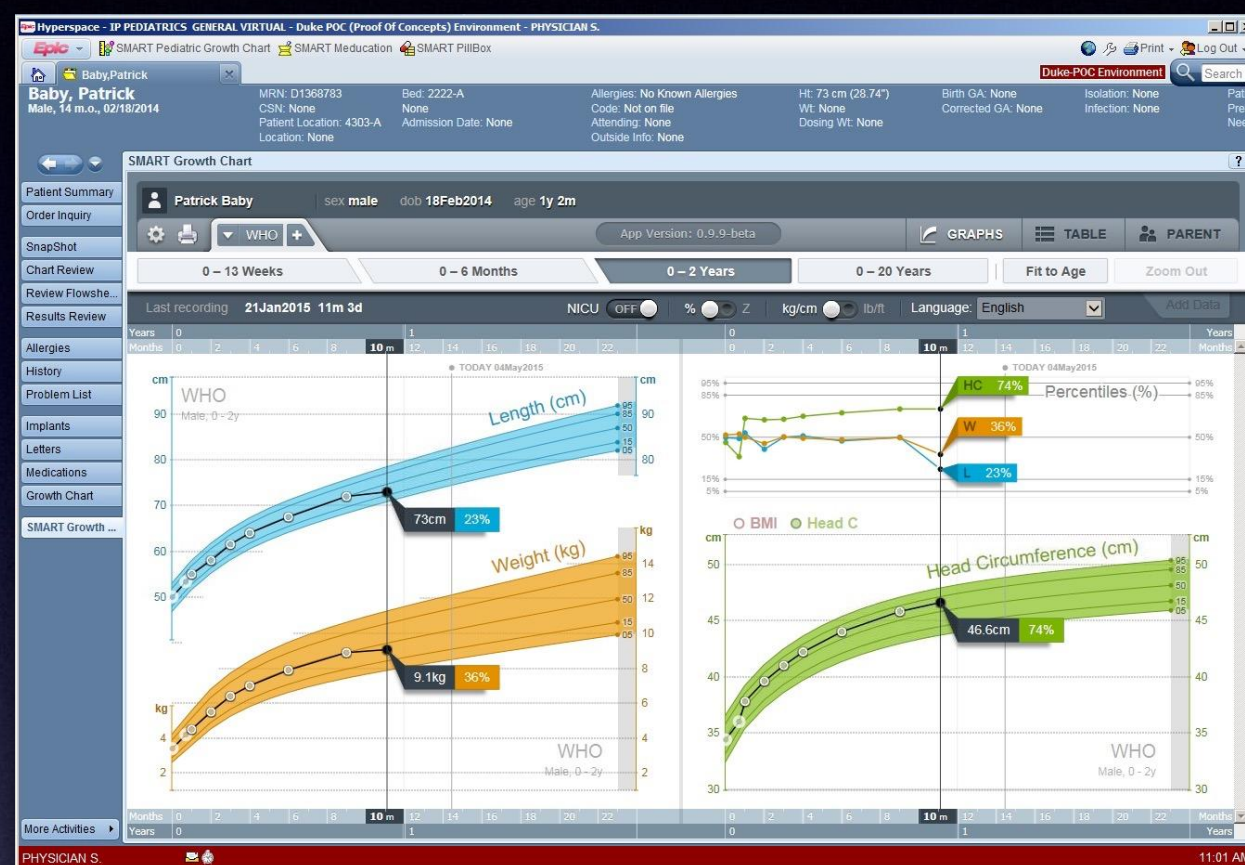
Provider-Centric



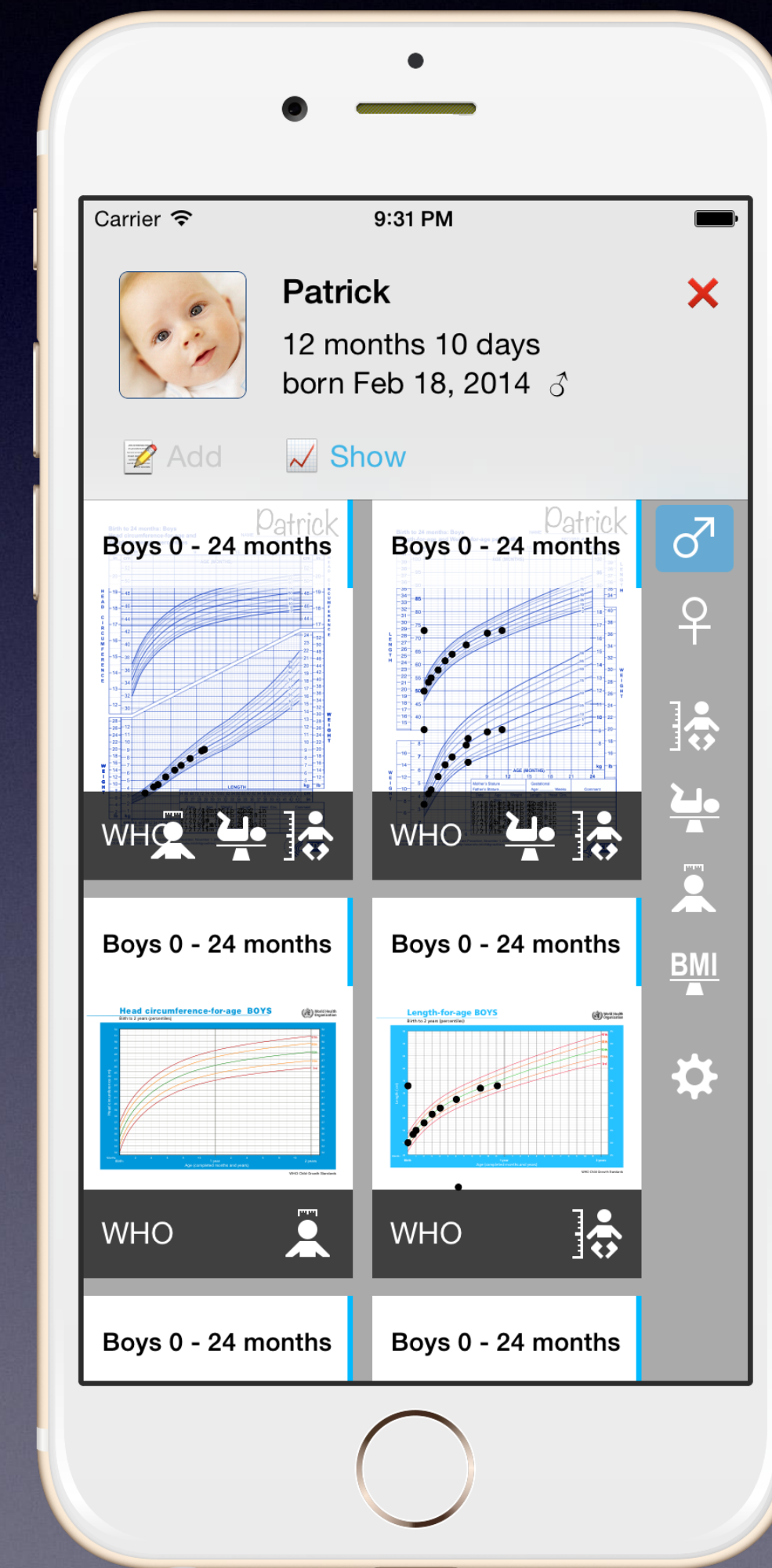
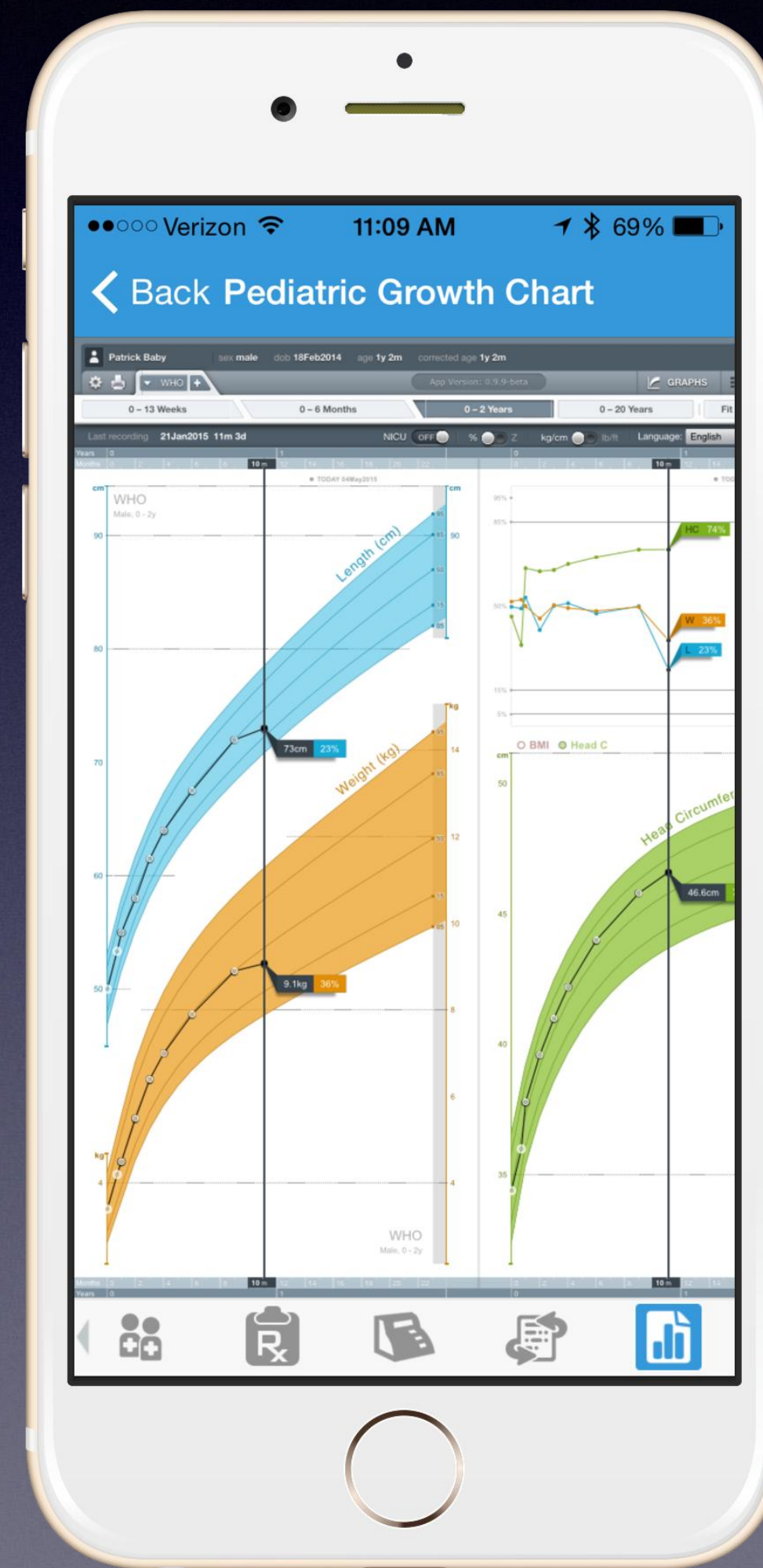
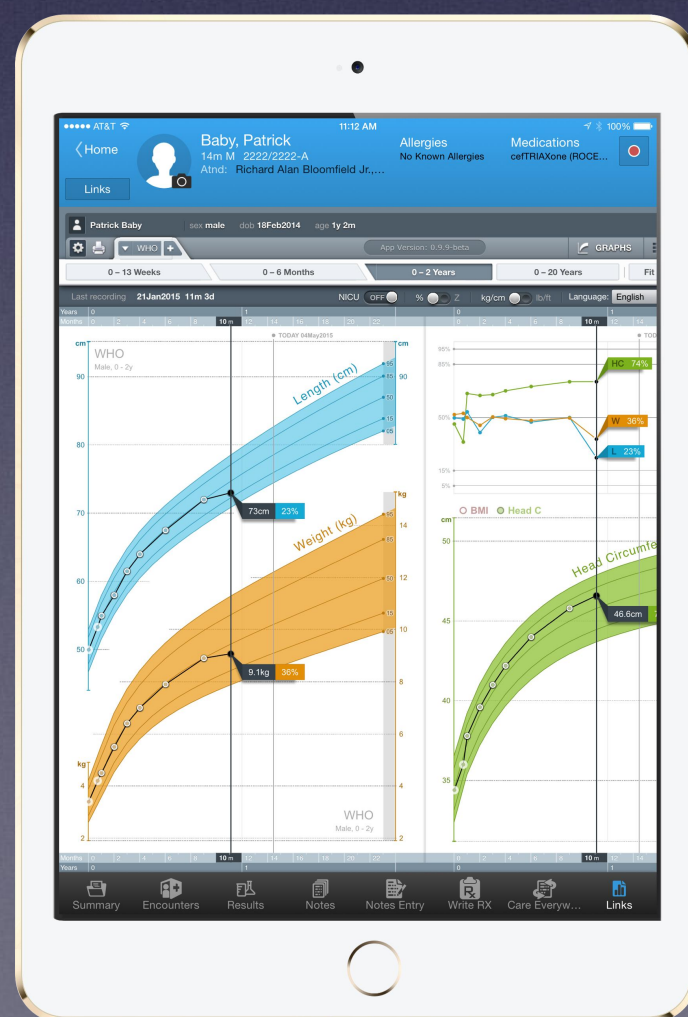
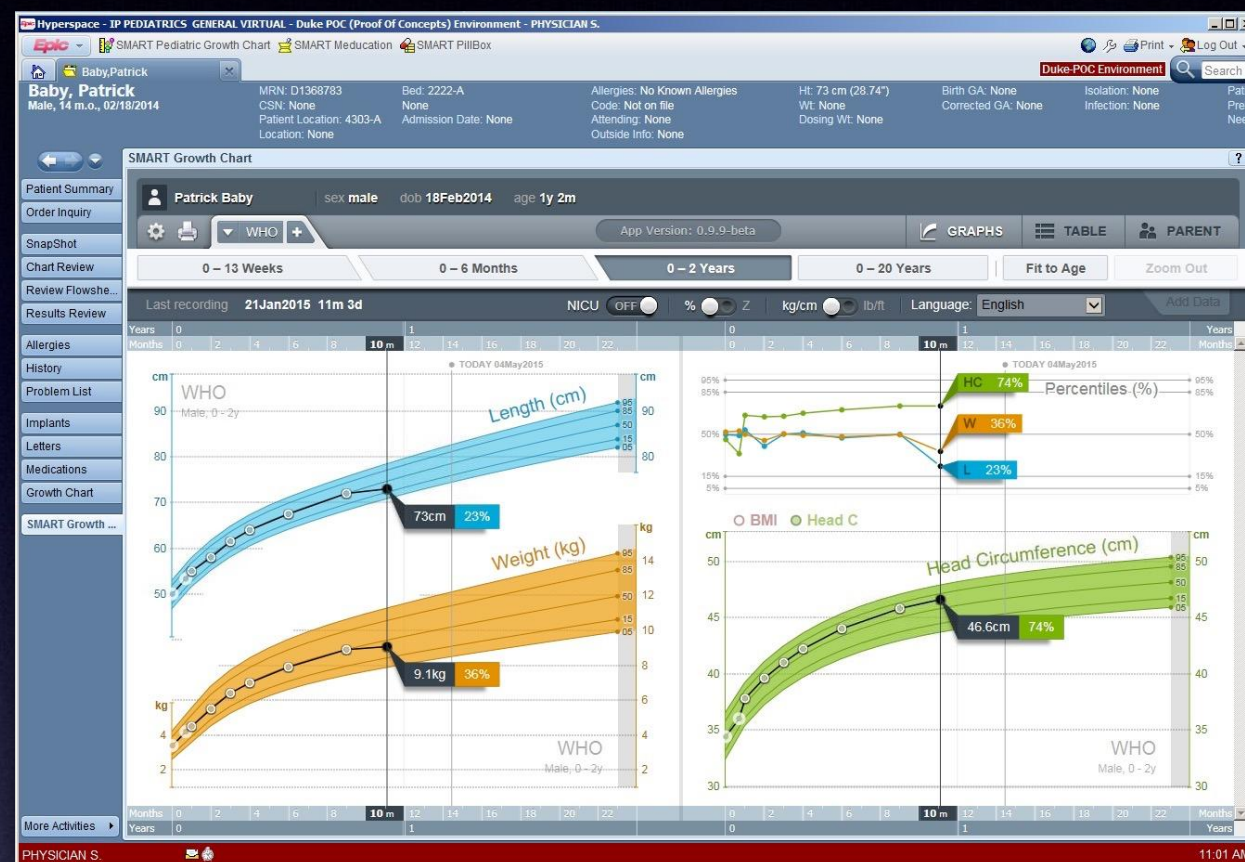
Provider-Centric



Provider-Centric



Provider-Centric



Demo



Provider-Centric



Patient-Centric



Patient-Centric

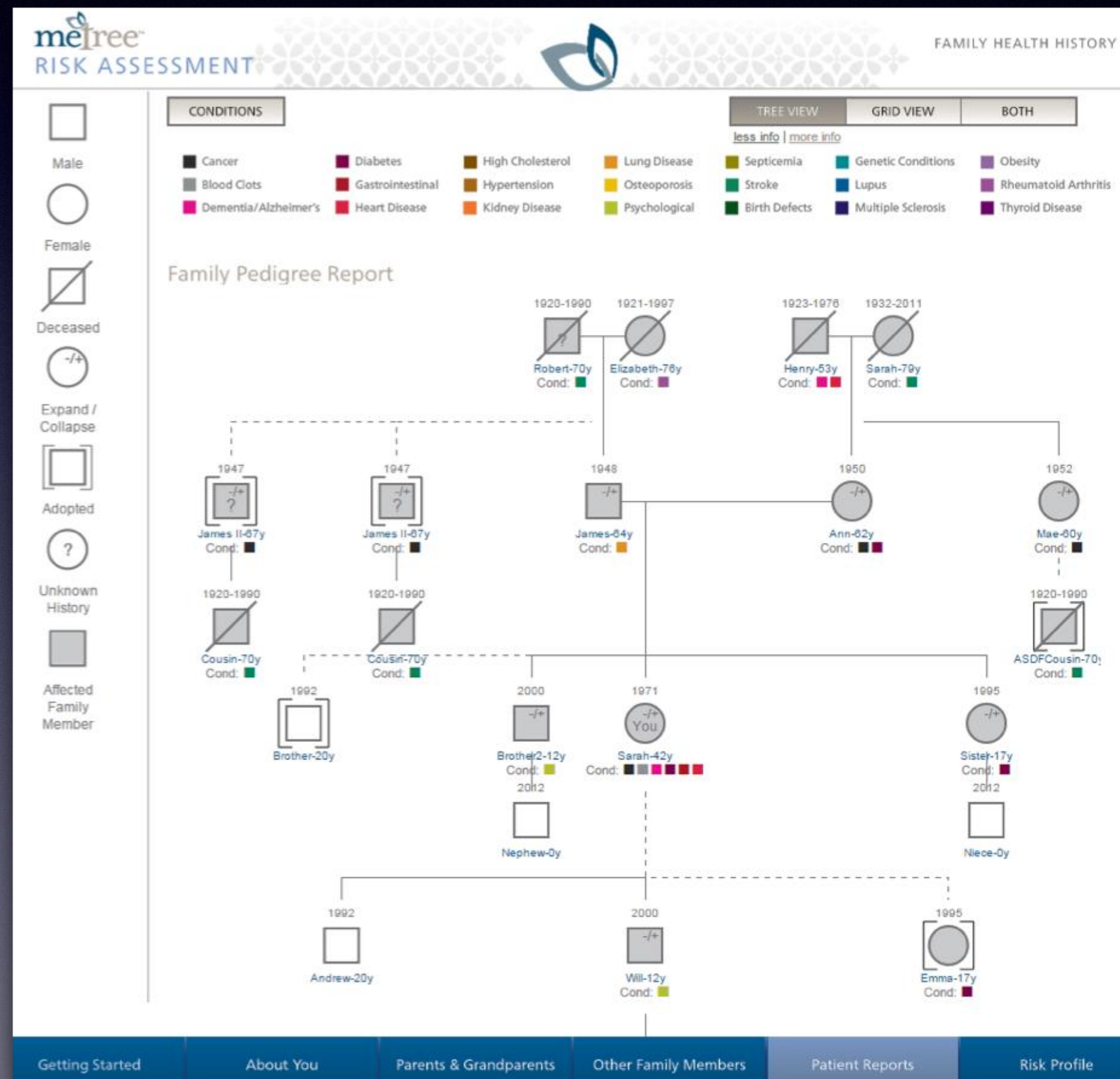
White House Champions of Change *Precision Medicine*

- **MeTree family history app** developed under the direction of Geoff Ginsburg, MD (Director, Duke Center for Personalized and Precision Medicine) and Lori Orlando, MD
- Recognized as an example for how this technology can be used by patients to personalize our understanding of disease



White House Champions of Change

Precision Medicine



- **Family history is the most effective “genomic test”**
- One 1st-degree relative with CAD age < 50 doubles Framingham risk score
- One 1st-degree relative with DM2 triples risk
- Only way to identify many hereditary cancer and cardiovascular syndromes
- **There is limited uptake of evidence-based risk stratified guidelines for disease prevention and early detection**
- <4% of charts reviewed had even 1 relative fully documented
- Studies show that 40–80% of general population are at risk for at least one condition

White House Champions of Change

Precision Medicine

meTree
RISK ASSESSMENT

**FAMILY HEALTH HISTORY
RISK ASSESSMENT TOOL**

Next: MeTree Overview >

← prev [Progress Bar] next →

Family History Worksheet
Click to download

Start

Getting Started | About You | Parents & Grandparents | Other Family Members | Patient Reports | Risk Profile

meTree
RISK ASSESSMENT

FAMILY HEALTH HISTORY

CONDITIONS

- Cancer
- Diabetes
- High Cholesterol
- Lung Disease
- Septicemia
- Genetic Conditions
- Obesity
- Blood Clots
- Gastrointestinal
- Hypertension
- Osteoporosis
- Stroke
- Lupus
- Rheumatoid Arthritis
- Dementia/Alzheimer's
- Heart Disease
- Kidney Disease
- Psychological
- Birth Defects
- Multiple Sclerosis
- Thyroid Disease

Tree View | Grid View | Both

less info | more info

Family Pedigree Report

1920-1990 1921-1997 1923-1978 1932-2011

Robert-70y Cond: [Cancer] Elizabeth-76y Cond: [Diabetes]

Henry-53y Cond: [Dementia/Alzheimer's] Sarah-79y Cond: [Stroke]

1947 1947 1948 1950 1952

James II-67y Cond: [Cancer] James II-67y Cond: [Cancer] James-64y Cond: [High Cholesterol] Ann-62y Cond: [Cancer] Mae-60y Cond: [Cancer]

1920-1990 1920-1990 1920-1990 1920-1990 1920-1990

Cousin-70y Cond: [Cancer] Cousin-70y Cond: [Cancer] Cousin-70y Cond: [Cancer] ASDFCousin-70y Cond: [Cancer]

1992 2000 1971 1995

Brother-20y Brother-2-12y Cond: [Cancer] Sarah-42y Cond: [Cancer] Sister-17y Cond: [Cancer]

2012 Nephew-0y Niece-0y

1992 2000 1995

Andrew-20y Will-12y Cond: [Cancer] Emma-17y Cond: [Cancer]

Getting Started | About You | Parents & Grandparents | Other Family Members | Patient Reports | Risk Profile

Demo

Summary

- Implemented SMART & FHIR server on Epic 2014
- Enable provider-facing apps via desktop EHR
- Enable patient-facing apps via patient portal
- Enable write support

One more thing ...

Questions?

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