

# Cardiovascular Disease Risk and **Prevention in Inflammation:** The REPRIEVE Trial in HIV



NIH

National Institute of Allergy and Infectious Diseases

















# What is Atherosclerosis? Why do People Living with HIV Have Heart Attacks?

Over many years, blockages made up of fats, proteins, blood cells, and clotting factors build up in blood vessels

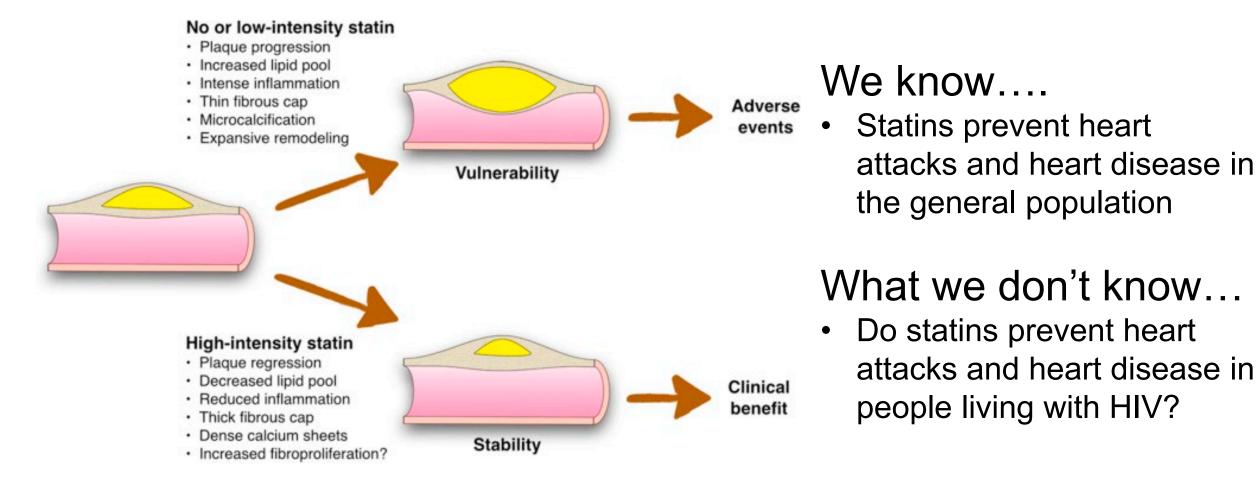


### Factors that lead to plaque & blockages

- Age / sex
- Cigarette smoking
- High blood pressure
- Diabetes
- Cholesterol problems
- Obesity
- Physical inactivity
- Family history of heart disease
- HIV
- HIV Medications
- Inflammation



### How Can Statins Help?



#### **REPRIEVE**

# REPRIEVE Trial: Placebo-controlled Randomized Controlled Trial of Primary Prevention in HIV

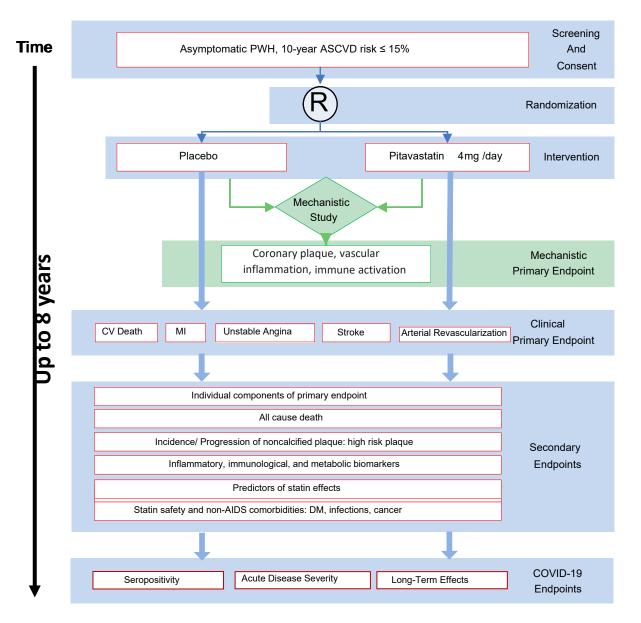
**PRIMARY HYPOTHESIS:** Statins will prevent major Atherosclerotic Cardiovascular Disease-related adverse events in people living with HIV on ART who have low-to-intermediate traditional cardiovascular (CVD) risk

#### **SECONDARY HYPOTHESES:**

- 1. Statin therapy will  $\downarrow$  specific CVD-related events and all-cause mortality
- 2.  $\downarrow$ LDL and non-HDL cholesterol levels with statin therapy will predict  $\downarrow$  in CVD events
- 3. Statin therapy will reduce serious non-cardiovascular events, including malignancies, end stage kidney or liver disease that are higher in people living with HIV
- 4. Statin therapy will be safe and well tolerated among people living with HIV

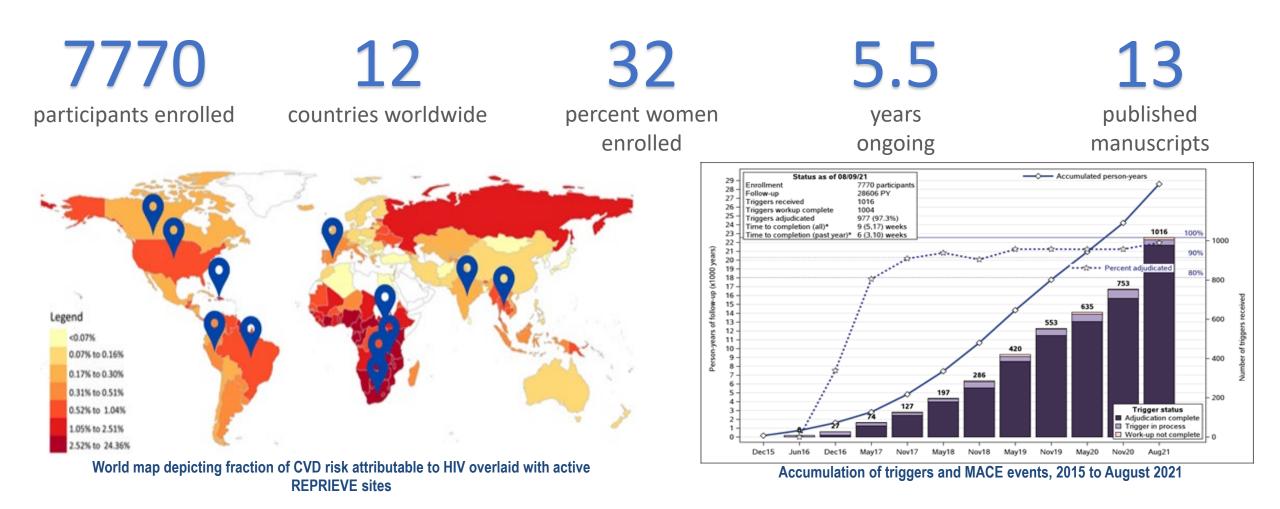


## **REPRIEVE Trial Schema**





### **REPRIEVE's Progress to Date**



*REPRIEVE*