

# Background



### Diabetes is the leading cause of kidney failure globally

CKD is often asymptomatic in its early stages. Early detection of CKD offers the potiential to slow progression.



Regular CKD screening is recommended for patients with Type 2 Diabetes

Guidelines: ADA, EASD and NICE

In reality, CKD screening doesn't take place as often as it's supposed to...



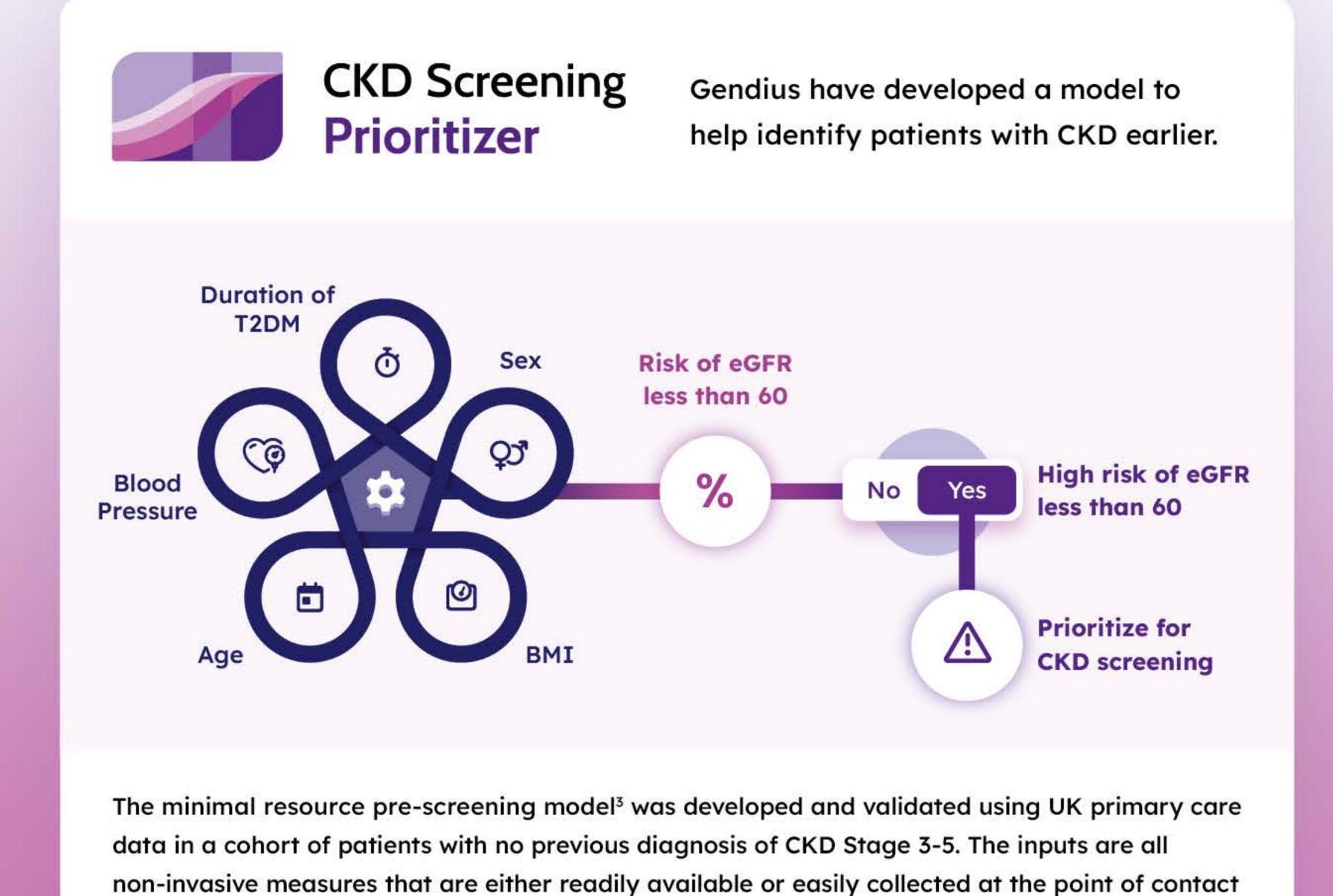
Low - and middle-income countries have limited resources

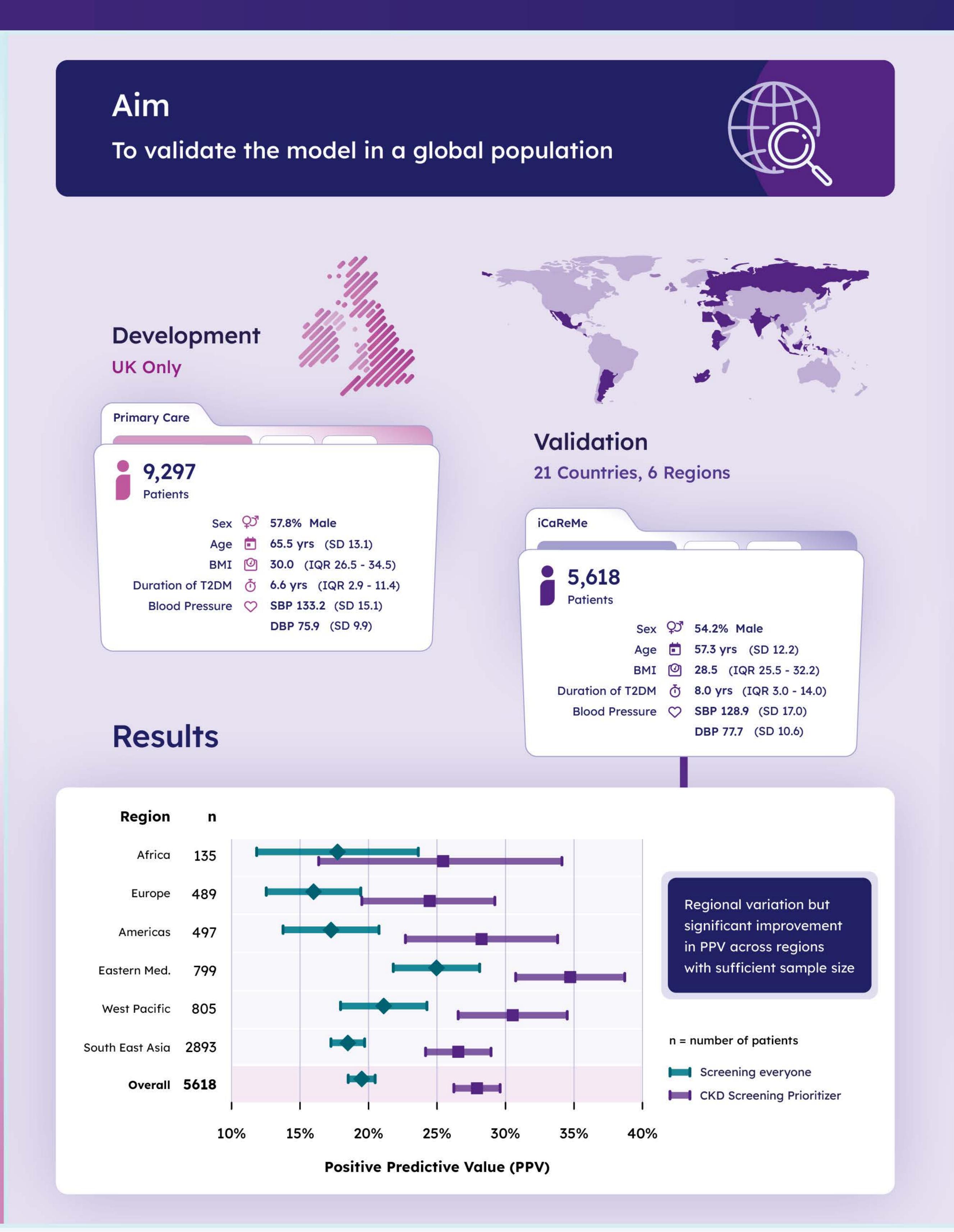
Screening every patient isn't possible due to the fewer resources available combined with the increased prevalence of T2DM & CKD1.



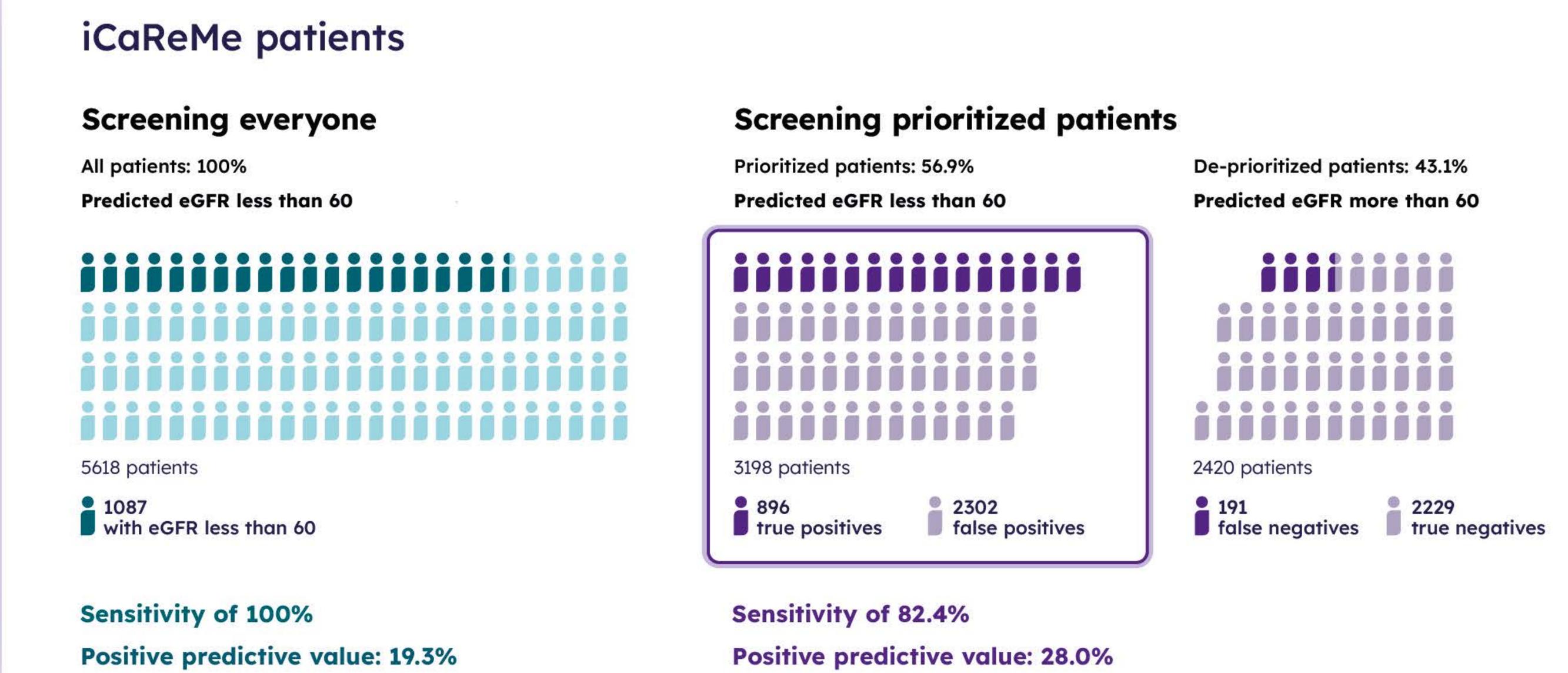
High income countries have been affected by Covid-19

The Covid-19 pandemic has caused global disruption to screening programs. Patient reviews have been delayed, and there has been a 40% reduction in serum creatinine testing<sup>2</sup>.





# The impact of implementation





less than 60

T / %

Relative improvement



#### Screening everyone

Selected randomly

Current



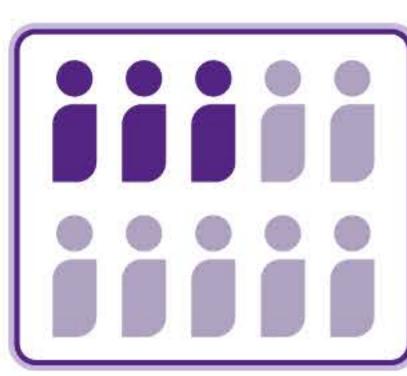
100 million patients

= 19.3 million patients with eGFR less than 60

#### Screening prioritized patients

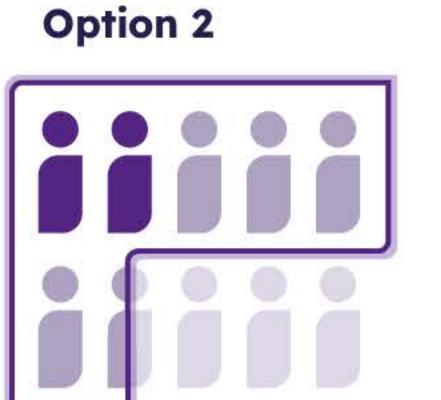
Selected using model

Option 1



100 million patients

= 28.0 million patients with eGFR less than 60



**68.9 million** patients

= 19.3 million patients with eGFR less than 60

Option 2 reduces the testing population by ≈ **31.1**%

> to obtain the same number of positive patients



Our study concluded that the model can be used (P) 🗥 globally to prioritize patients at highest risk of exhibiting an eGFR less than 60.



It can support healthcare professionals to target those most in need. This could be used to address problems such as limited resources in LMICs or high demands on healthcare systems, exacerbated Covid-19.

1) George, C. et al. (2022) 'The need for screening, early diagnosis, and prediction of chronic kidney disease in people with diabetes in low- and middle-income countries — a review of the current literature', BMC Medicine, 20(1)

with the patient.