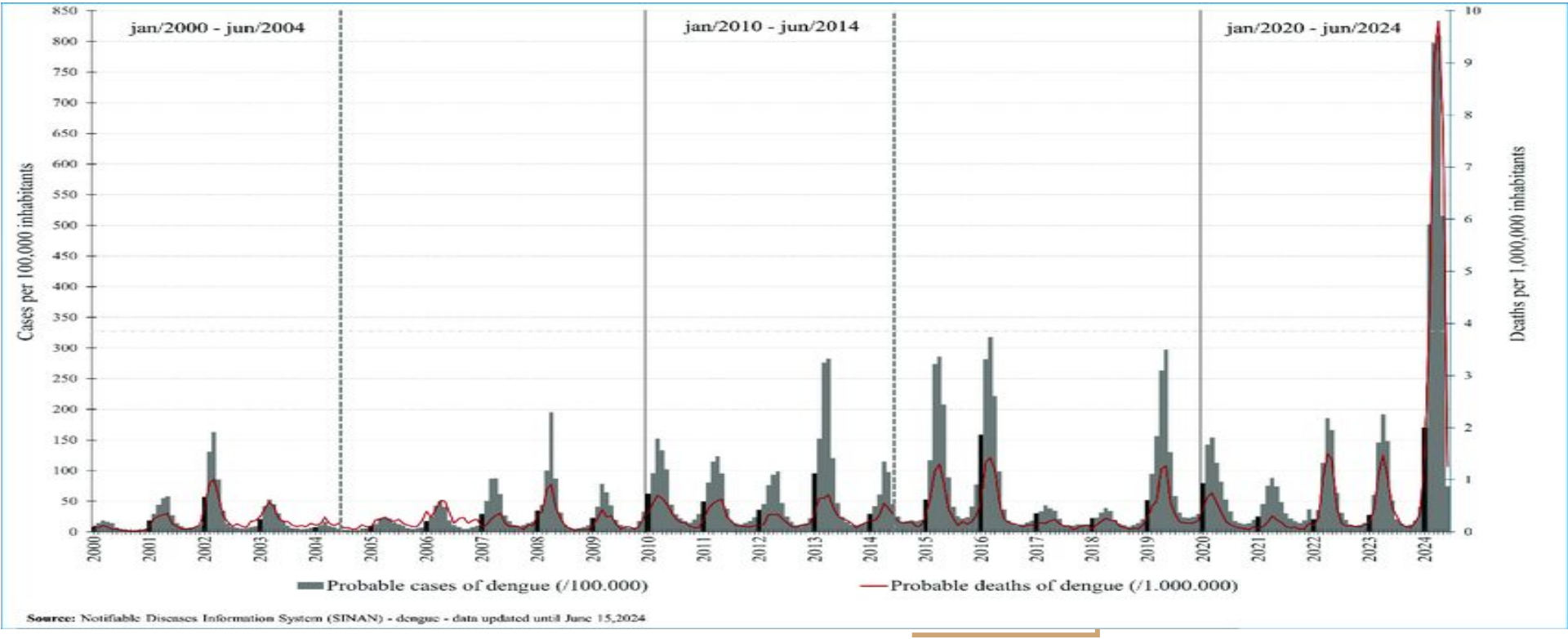
Infodengue para vigilância de arboviroses no Brasil e a iniciativa Infodengue-Mosqlimate

Claudia Codeço
Pesquisadora Fiocruz
claudia.codeco@fiocruz.br

Webinário TGHN 31 out 2025

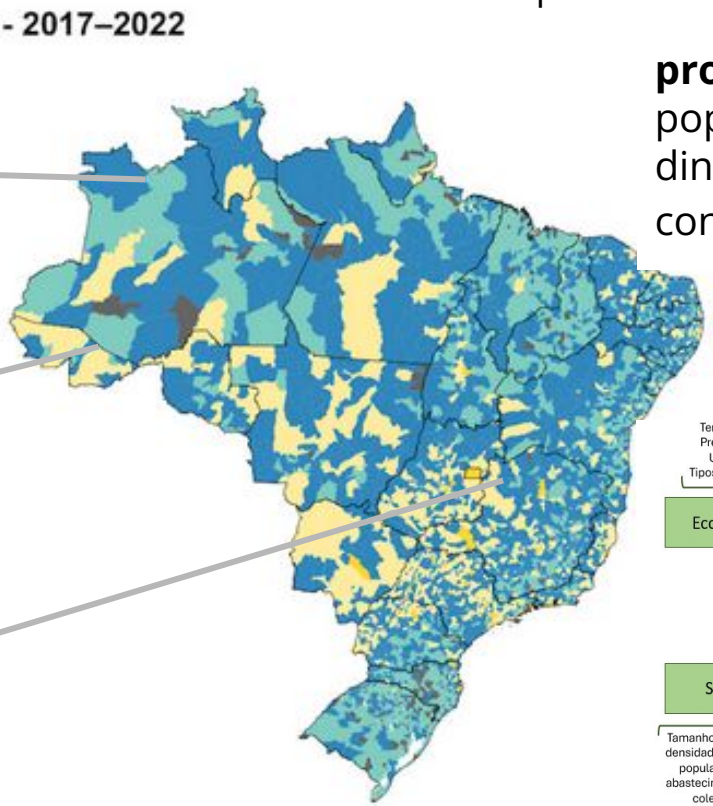
A Dengue no Brasil (2000-2024)

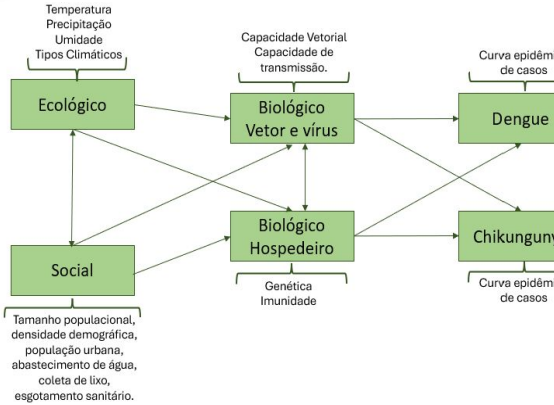


Epidemias de dengue são multi-causais e espacialmente heterogêneas

processos macro-escala: chegadas de sorotipos, anomalias climáticas, pandemia de covid

processos micro-escala: população de suscetíveis, dinâmica do vetor, taxa de contato, etc.



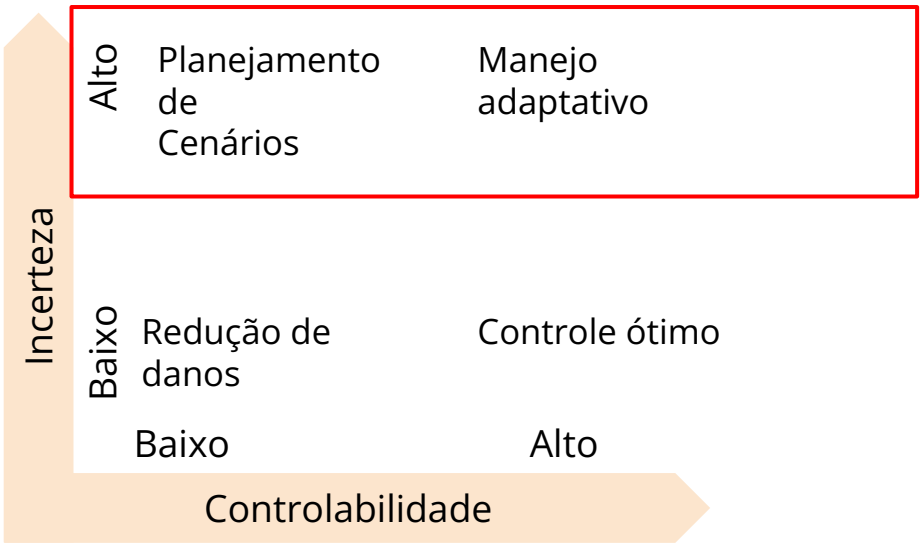


Almeida et al, 2022

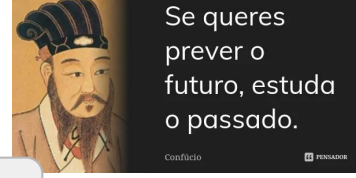
Padrão de Transmissão Episódico | Episódico/Epidêmico | Epidêmico | Transmissão Persistente | Sem transmissão

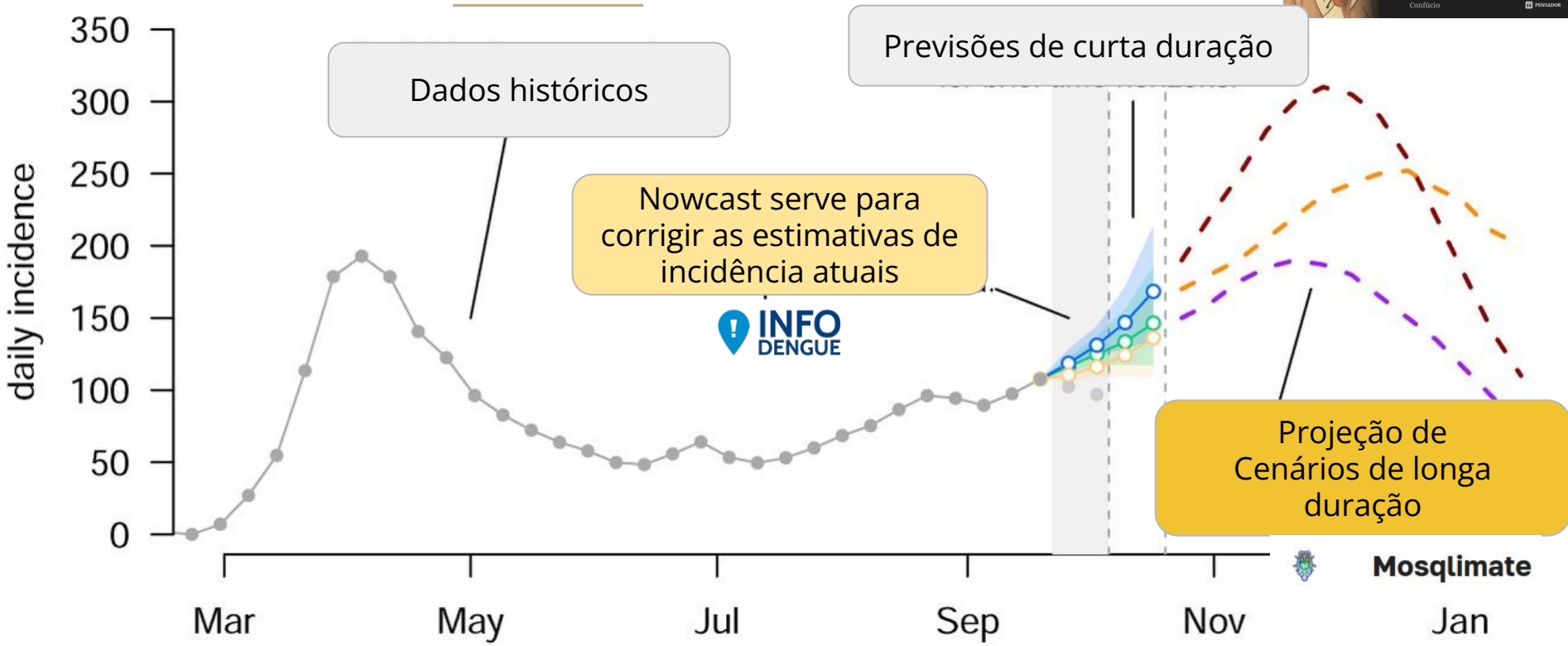
Modelos preditivos: instrumentos para ação

- Construção de cenários
- Análise de risco
- Simulação de respostas (manejo adaptativo)
- A interpretação precisa de experiência, e especialistas.



Infodengue e Mosqlimate: Modelagens preditivas para dengue

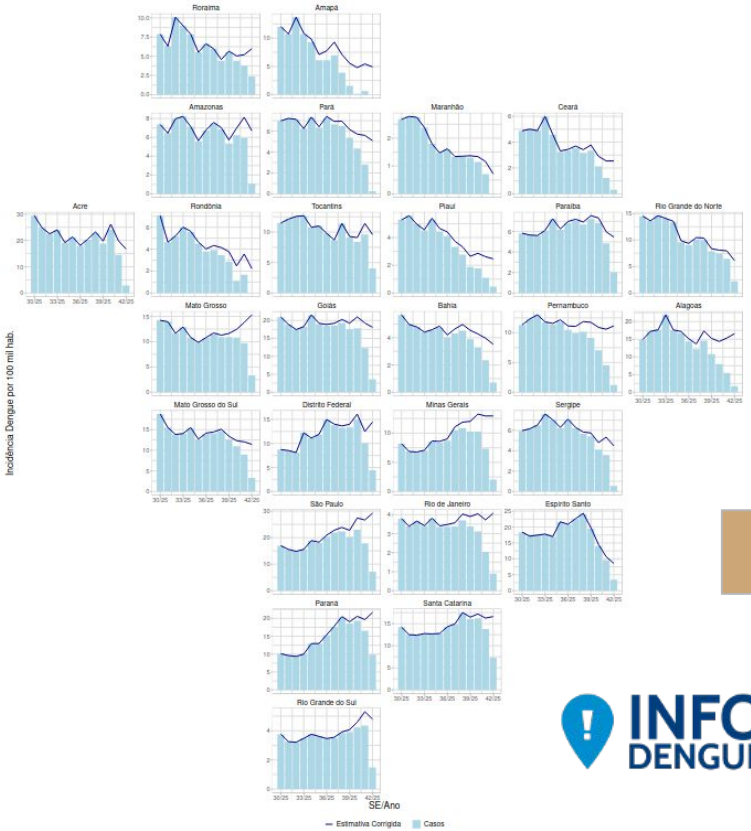




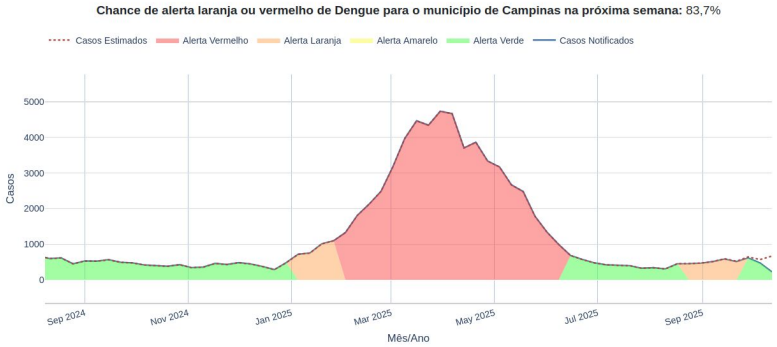
modelos estatísticos, machine learning, matemáticos

Infodengue sistema de Nowcast + alerta precoce

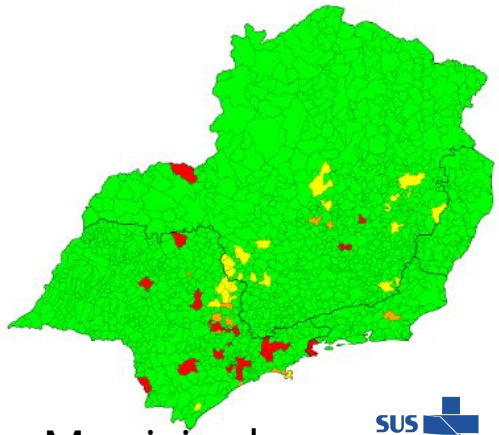
https://info.dengue.mat.br/



Estadual



Sudeste



Municipal

INFO DENGUE

FGV EMAp ESCOLA DE MATEMÁTICA APLICADA

FIOCRUZ

SUS 35 ANOS

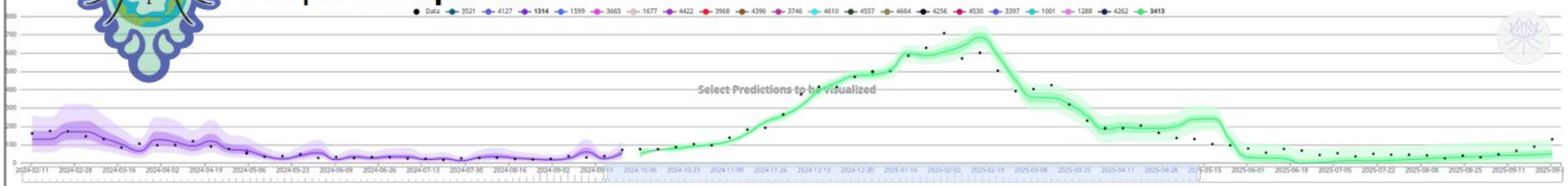
MINISTÉRIO DA SAÚDE

GOVERNO DO BRASIL DO LADO DO POVO BRASILEIRO

Doenças Transmissíveis Sensíveis ao Clima

Prevendo a Evolução de Epidemias

Grupo **Mosqlimate**

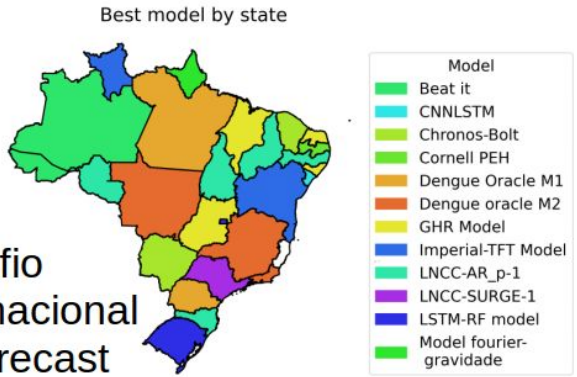


“Ensembles” Probabilísticos de modelos preditivos.

Financiado por:

wellcome

Desafio internacional de forecast

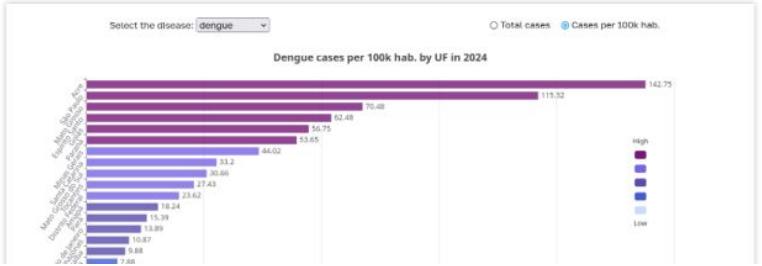


Mosqlimate Data API

This platform makes available data to be used in the forecast of Arbovirus diseases in Brazil. It also serves as an open registry of forecasting models for such diseases in Brazil. Relevant climate data is also made available to help include climate influence into the modeling.

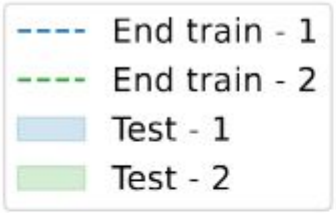
Currently, only data for dengue, chikungunya and zika are available through this platform. More datasets will be made available in time. All the data made available are in the public domain and are official data made available by the Brazilian Ministry of Health.

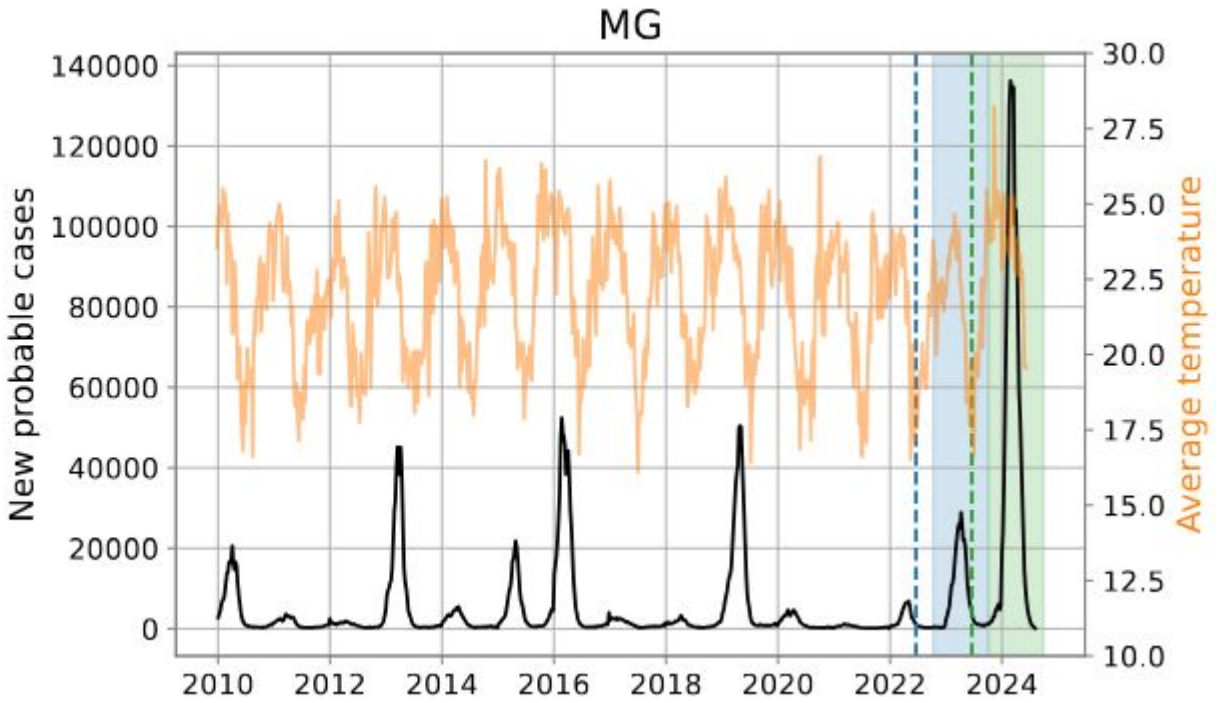
The purpose of this platform is to enhance the comparability of forecasting models by making it possible for all models to learn from the same data. The model registry is open to anyone willing to contribute but will require creating a user account first. The Mosqlimate project reserves the right to curate the model collection and decide which one to make available through the platform.



Desafio Mosqlimate-Infodengue 2024

Previsão de temporada anual, por estado





Teams:

D-fense: Américo cunha (UERJ)

Dobby Data: Eduardo Araújo (FGV)

GeoHealth: Paula Moraga (KAUST)

Global Health Resilience: Rachel Lowe (BSC)

PET: Leo Bastos (PROCC-Fiocruz)

Ki-Dengu Peppa: Luiz Max Carvalho (FGV)

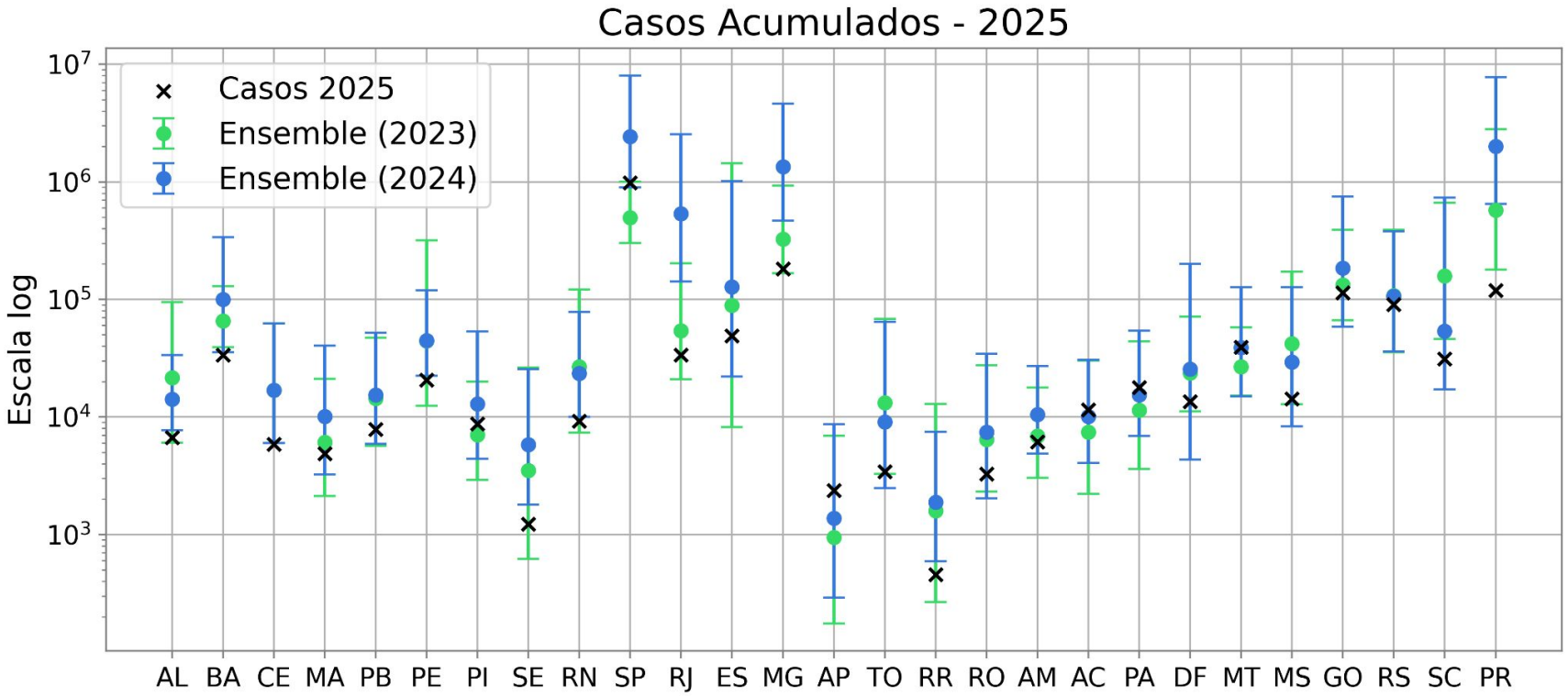
DS_OKSTATE: Lucas Stolerman (OSU)

Dados de treinamento e validação

Organization:

Funding:

Resultado desafio 2024: Comparação das previsões de dengue para temporada 2025 com observado, por estado



Desafio 2025

Equipes

Infodengue: https://info.dengue.mat.br/

Mosqlimate: https://mosqlimate.org/

Fiocruz: Claudia Codeço, Leonardo Bastos, Oswaldo Cruz, Sara Souza, Thais Riback, Raquel Lana, Iasmim Almeida, Marcelle Chagas, Lais Freitas, Lucas Bianchi, Ayrton Gouveia, Ramila Alencar, Danielle Ferreira

FGV-EMAp: Flavio Coelho, Fabiana Ganem, Eduardo Araujo, Luiz Carvalho, Luã Bida, Beatriz Laiate, Marcio Bastos, Davi Barreira, Julie Souza

Apoio: