



Universidade Federal do Ceará

Modelagem epidemiológica do COVID19 para o Estado do Ceará empregando o modelo SEIIR

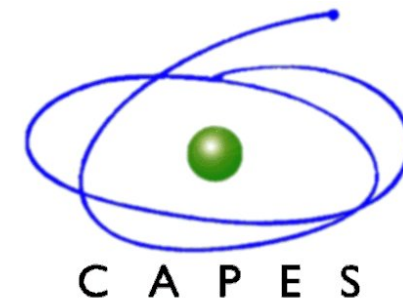
Equipe Cientista-Chefe de Dados (UFC & CAPP-IPECE):

José Soares de Andrade (UFC-Física)

Humberto Carmona (UFC-Física)

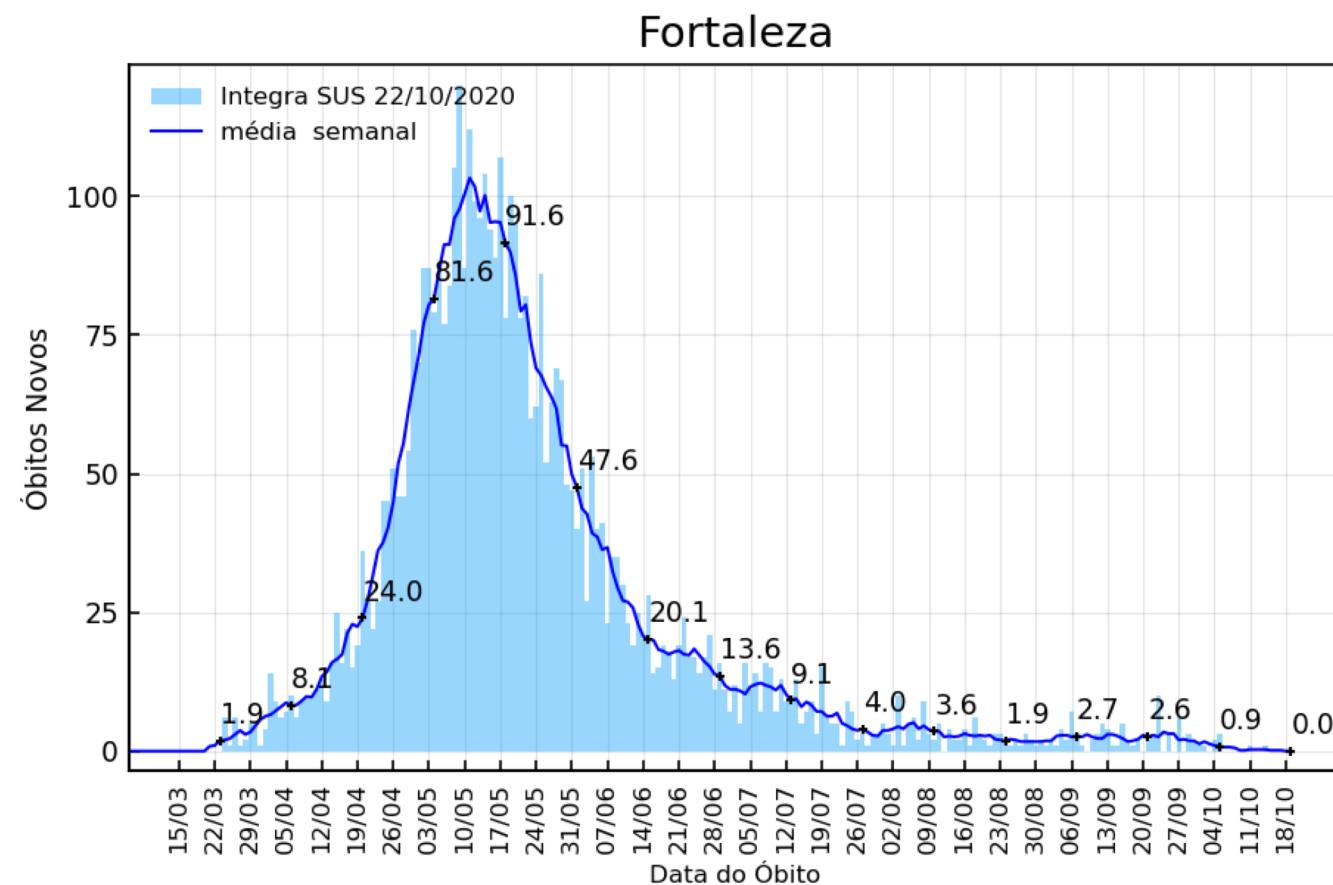
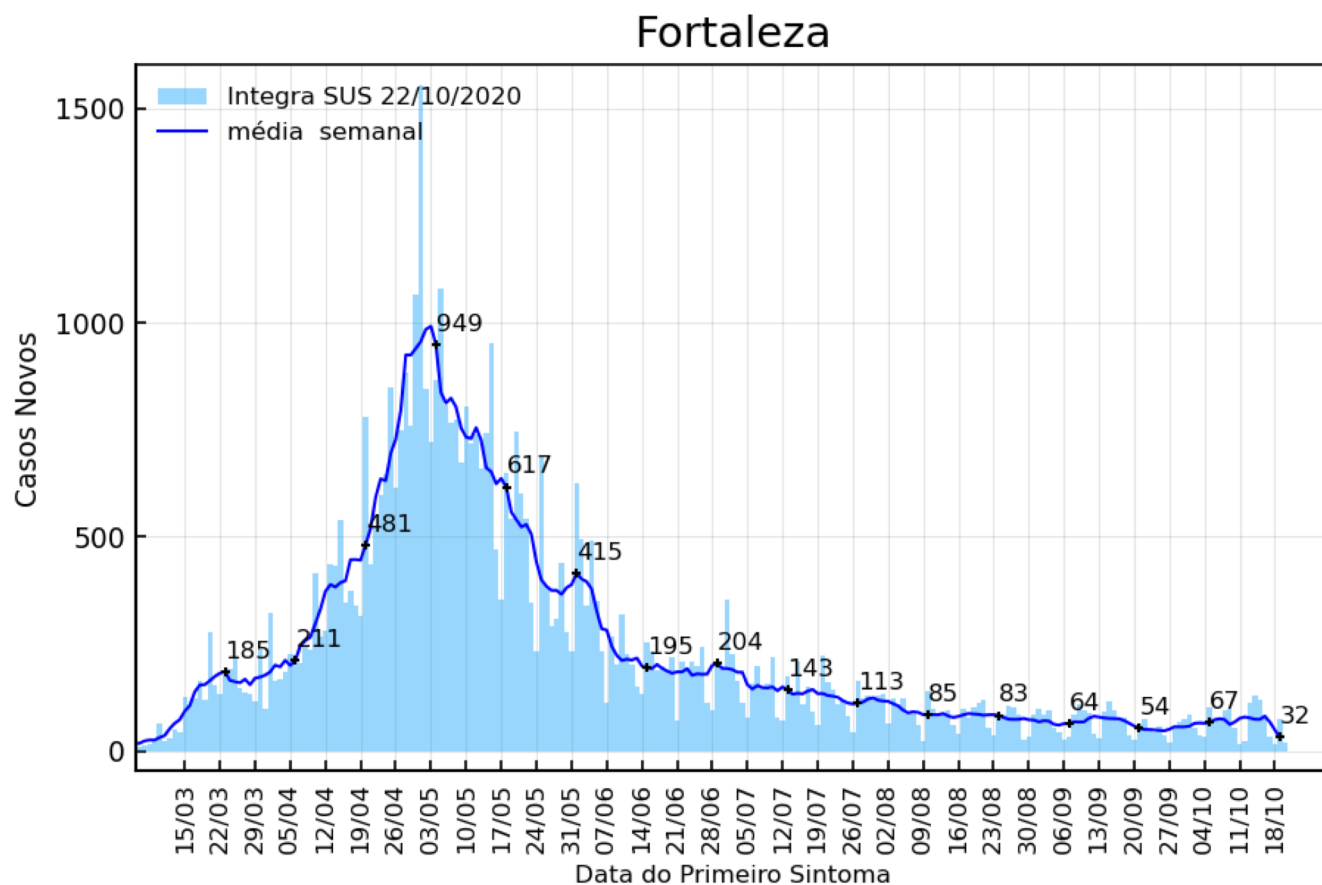
Rilder Pires (CAPP-IPECE-SEPLAG)

Saulo Reis (UFC-Física)

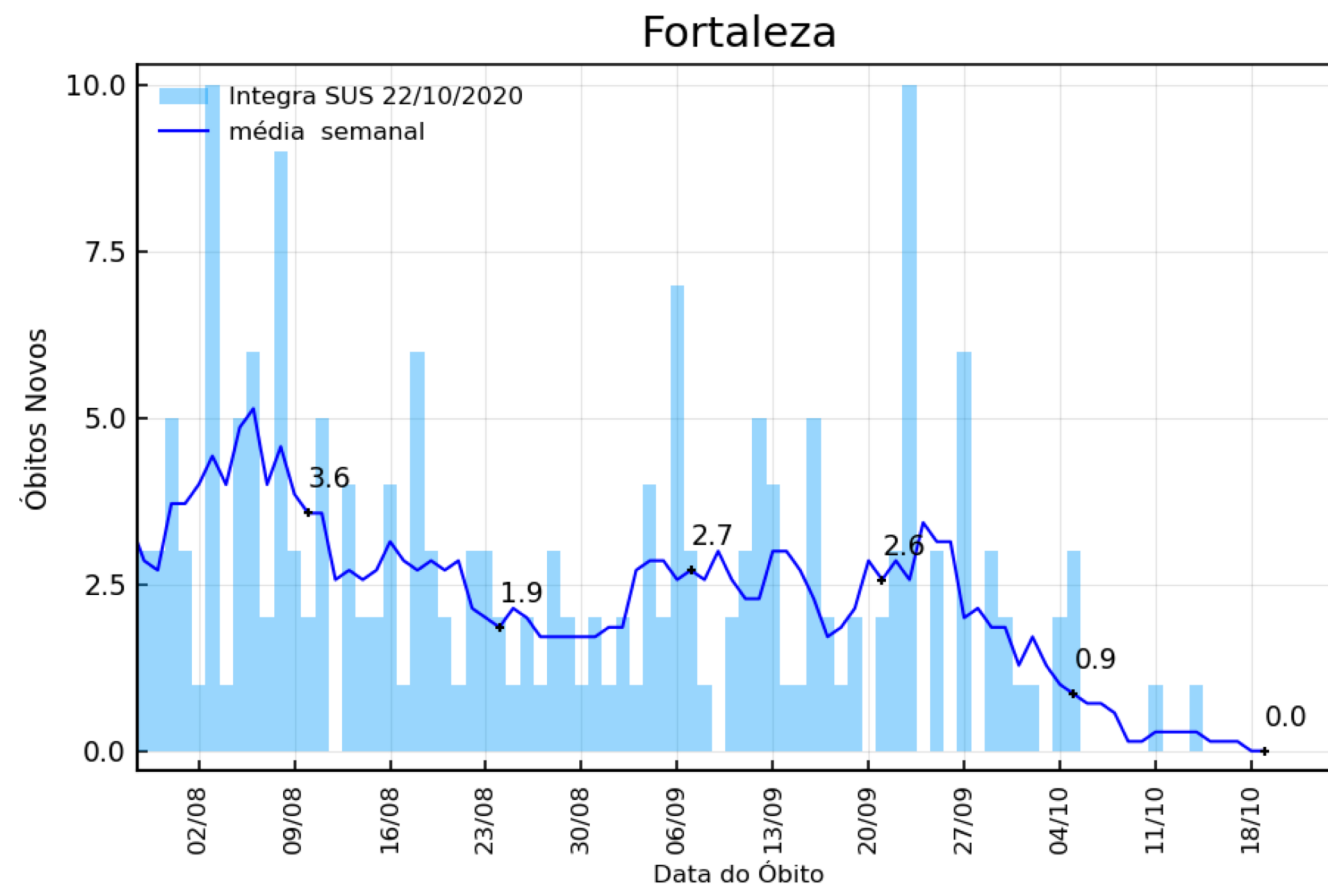
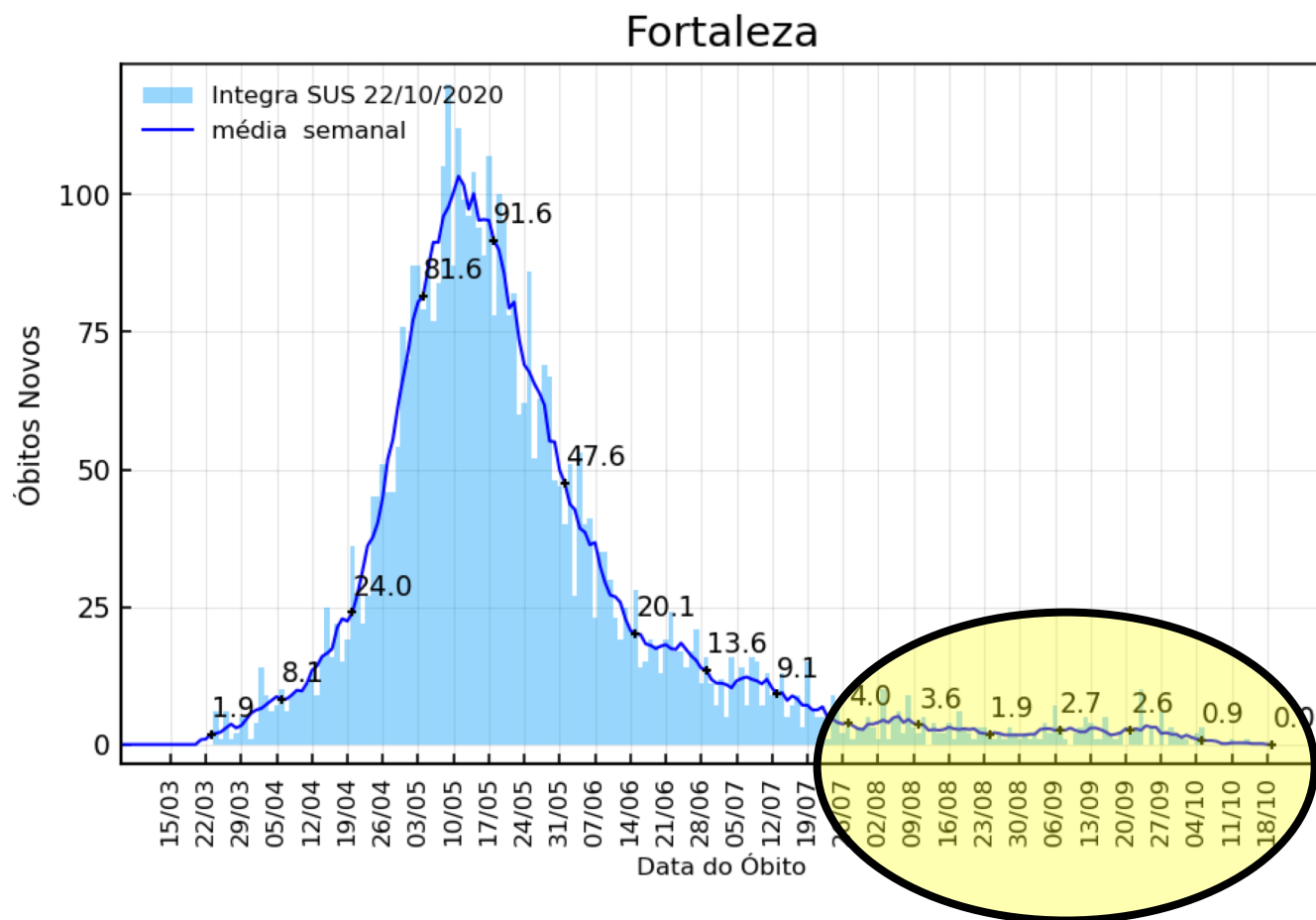


Fortaleza (capital)

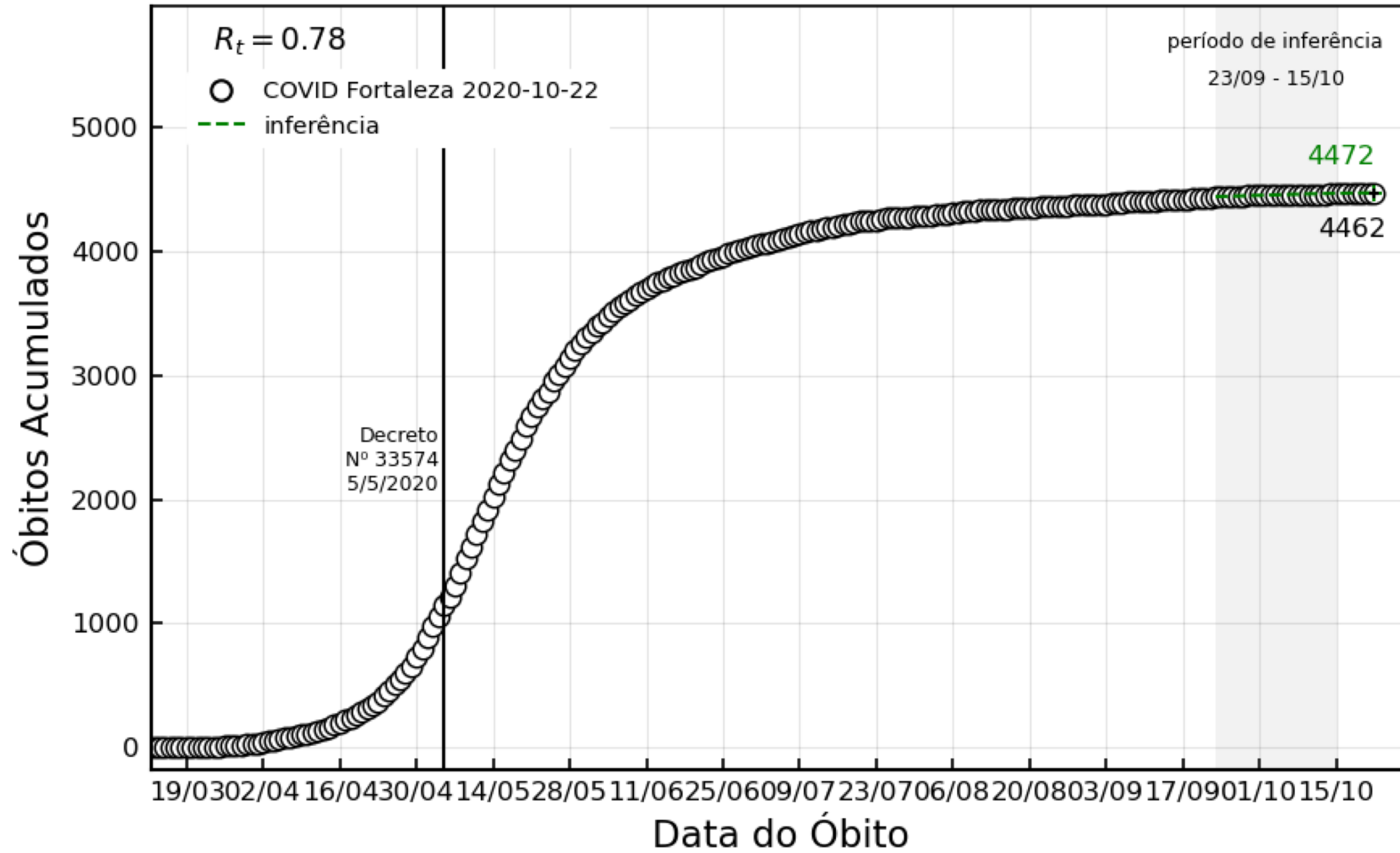
Dados atualizados em 22/10/2020



Dados atualizados em 22/10/2020

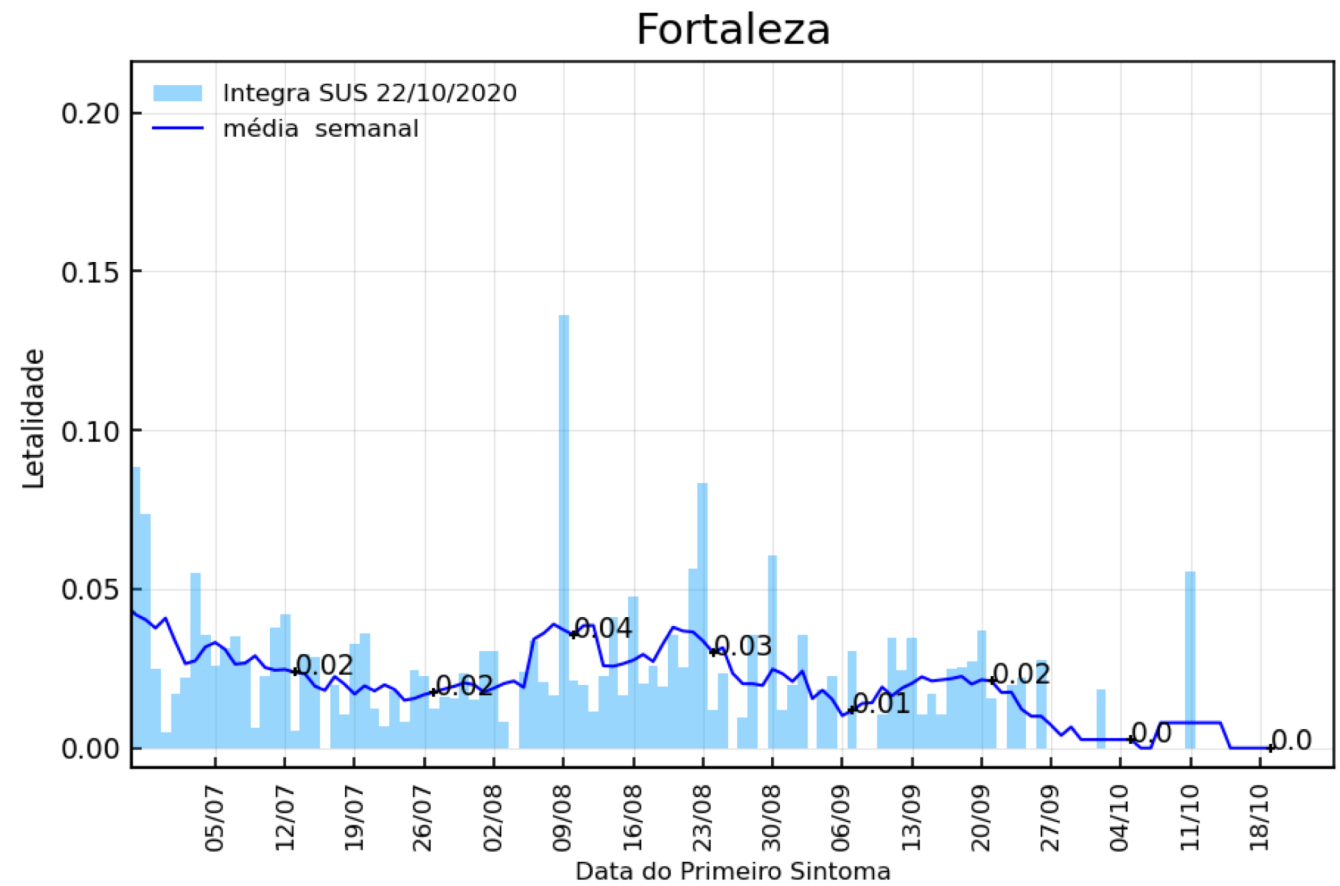
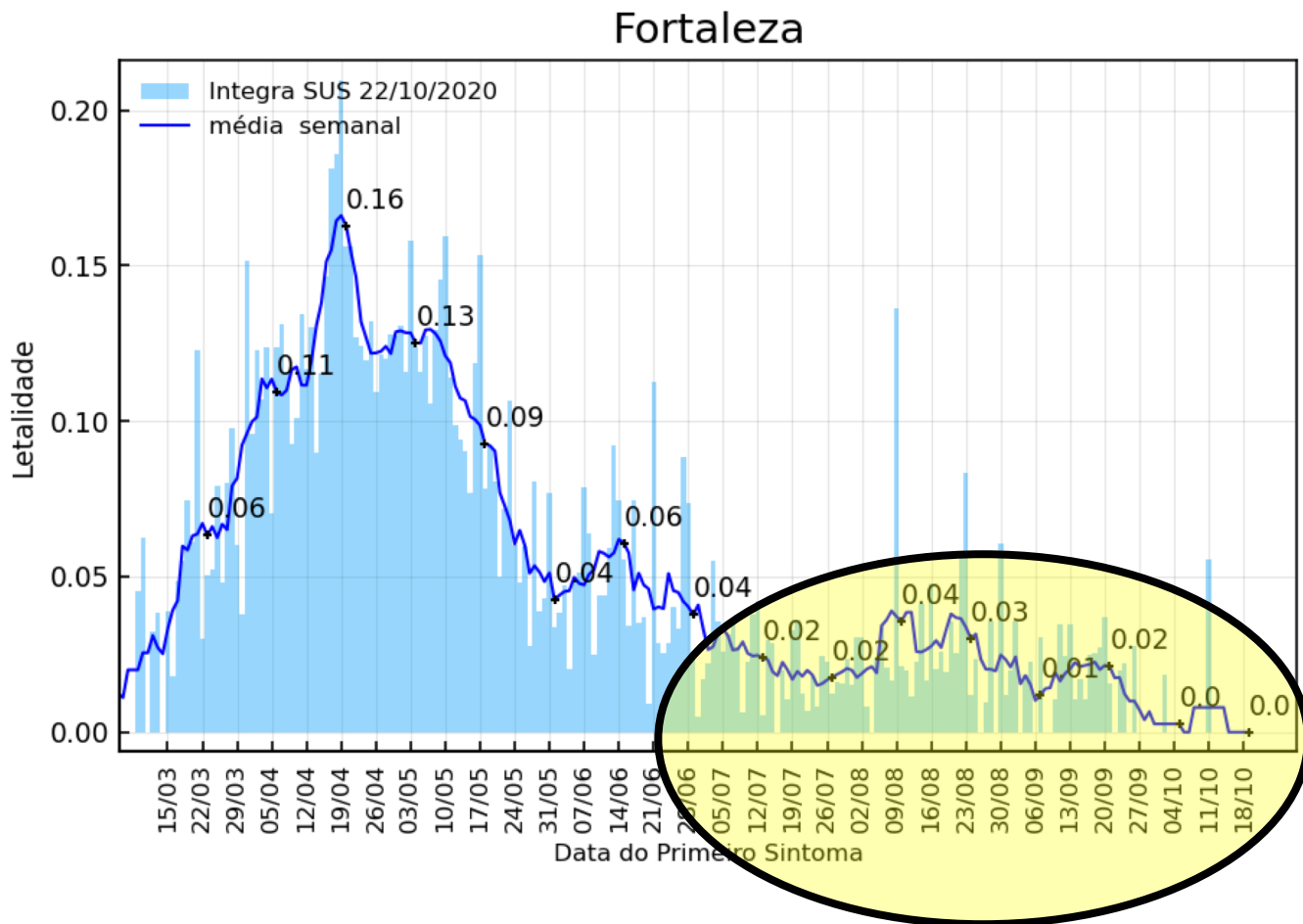


Fortaleza



Letalidade (\mathcal{L})

$$\mathcal{L} = \frac{\text{número de óbitos}}{\text{número de casos}} \quad (\text{ambos por data dos primeiros sintomas})$$



Ceará & Regiões

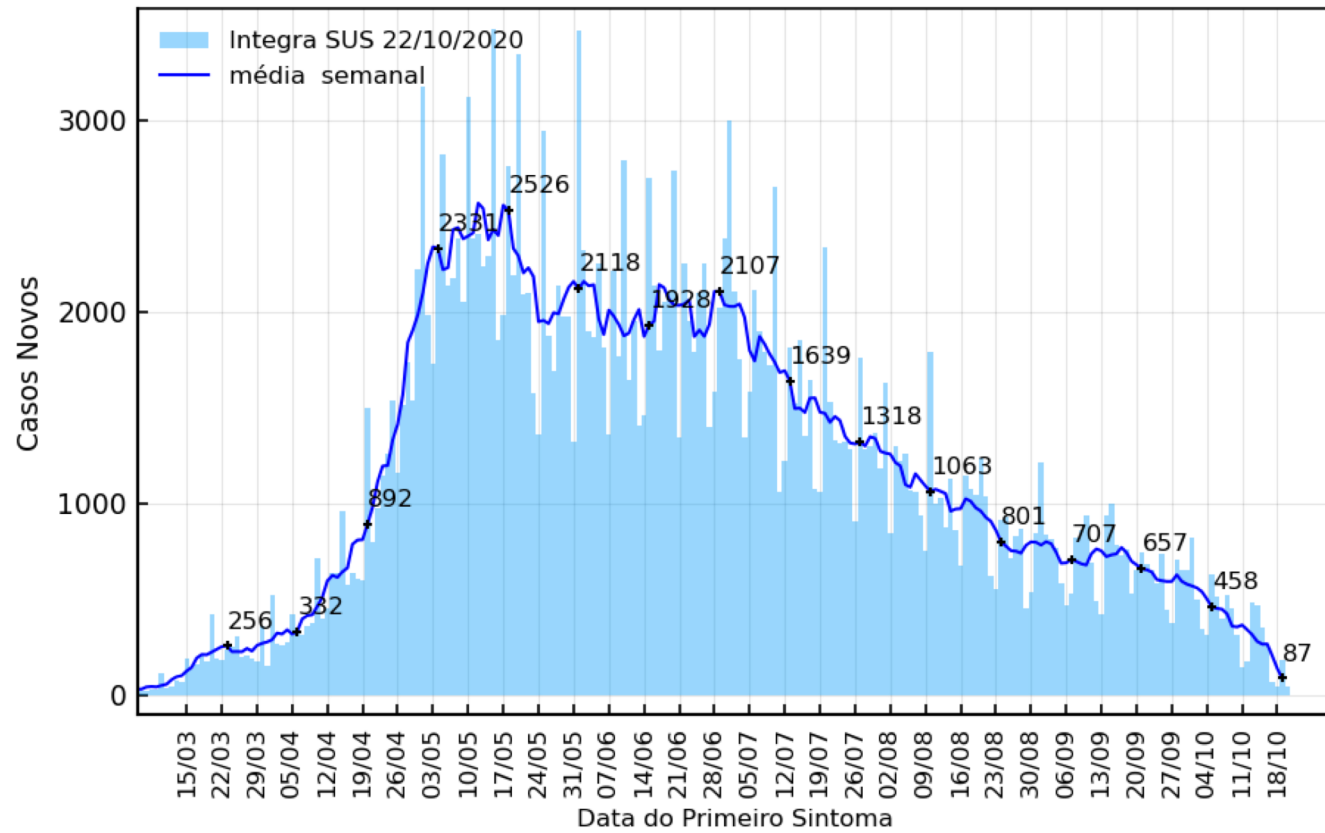
REGIÃO	POPULAÇÃO (IBGE 2020)
Fortaleza	4.817.822
Sobral	1.643.656
Cariri	1.523.245
Sertão Central	652.591
Litoral Leste/Jaguaribe	549.789

População do Ceará = 9.187.103 habitantes

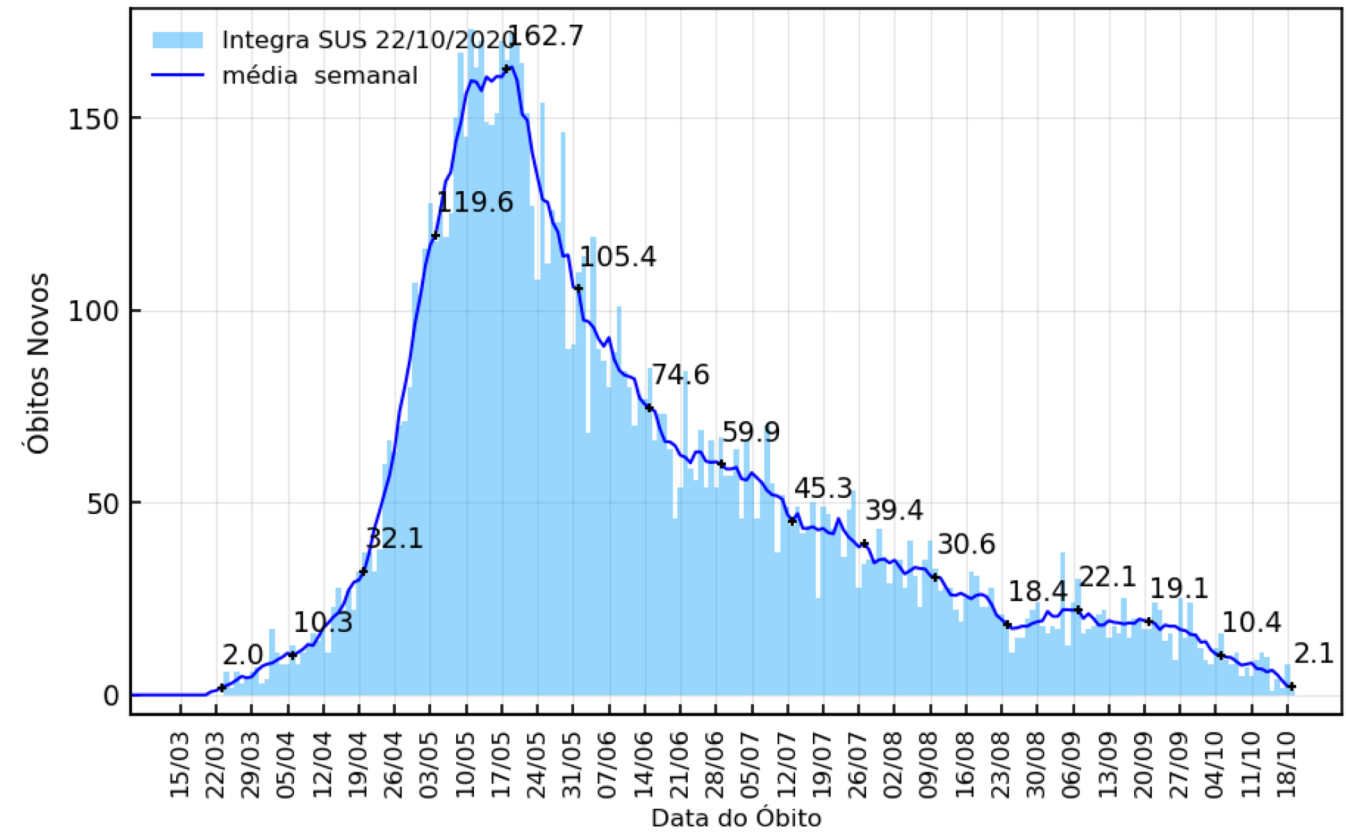
Estado do Ceará

Dados atualizados em 22/10/2020

Estado do Ceará

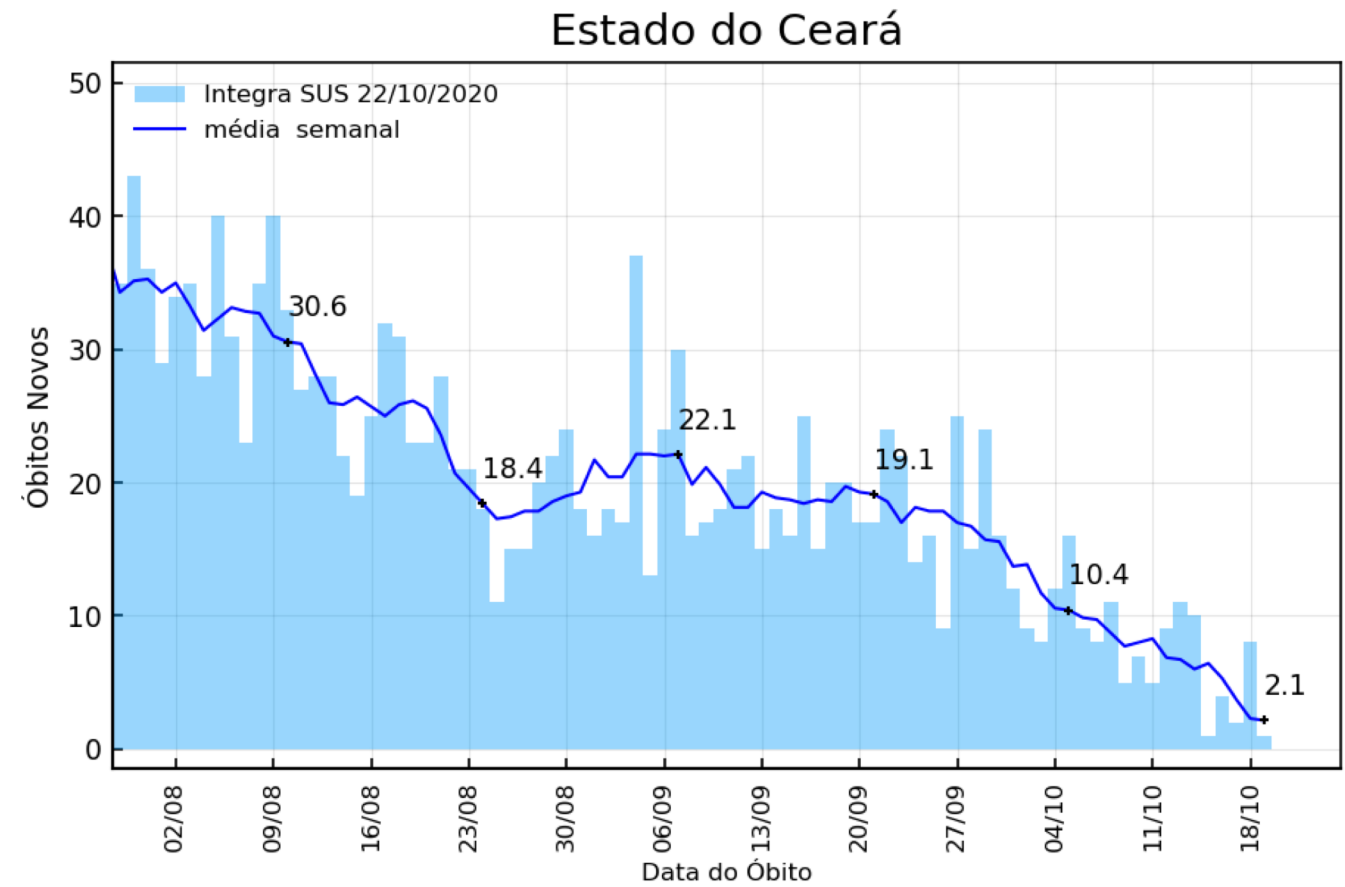
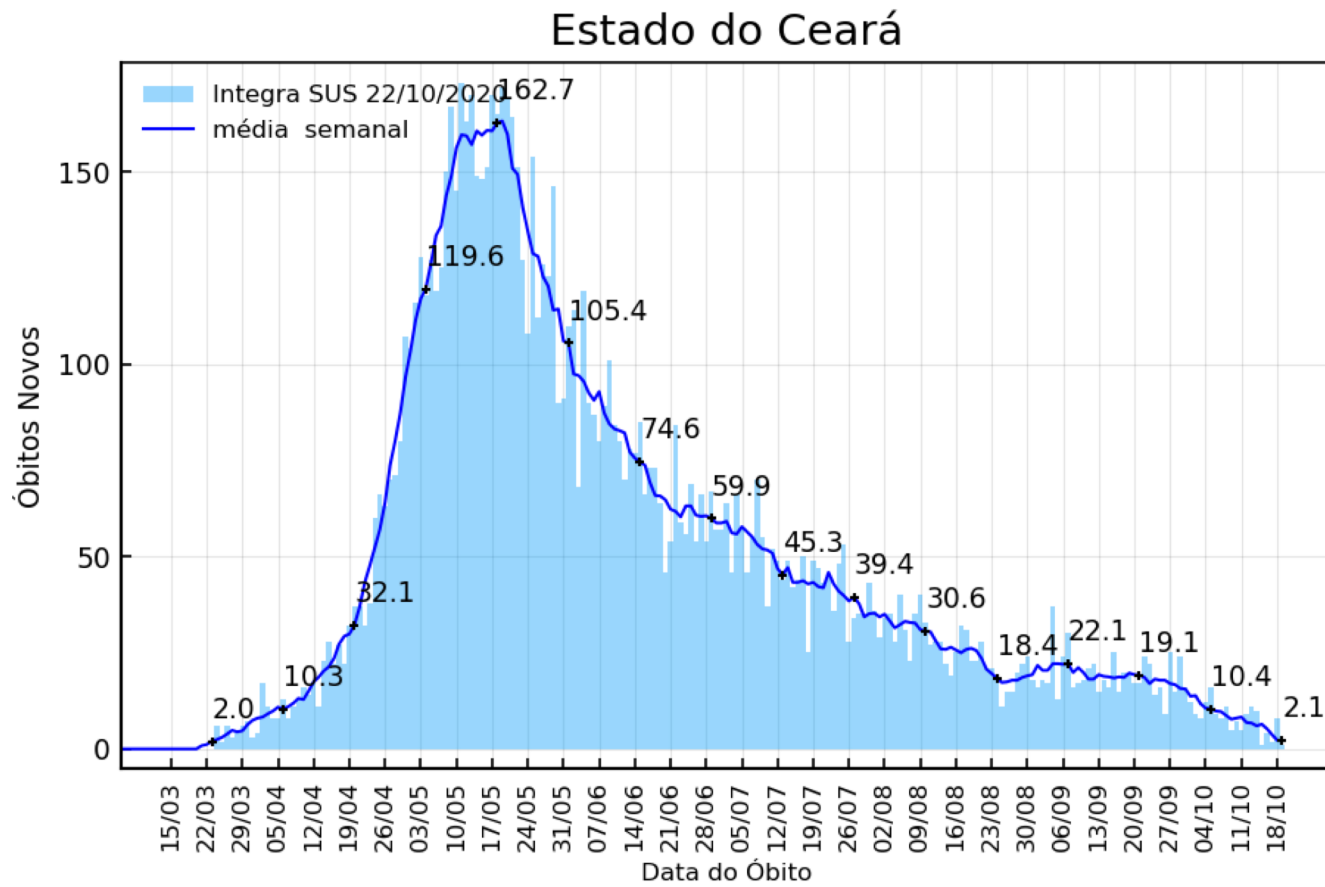


Estado do Ceará

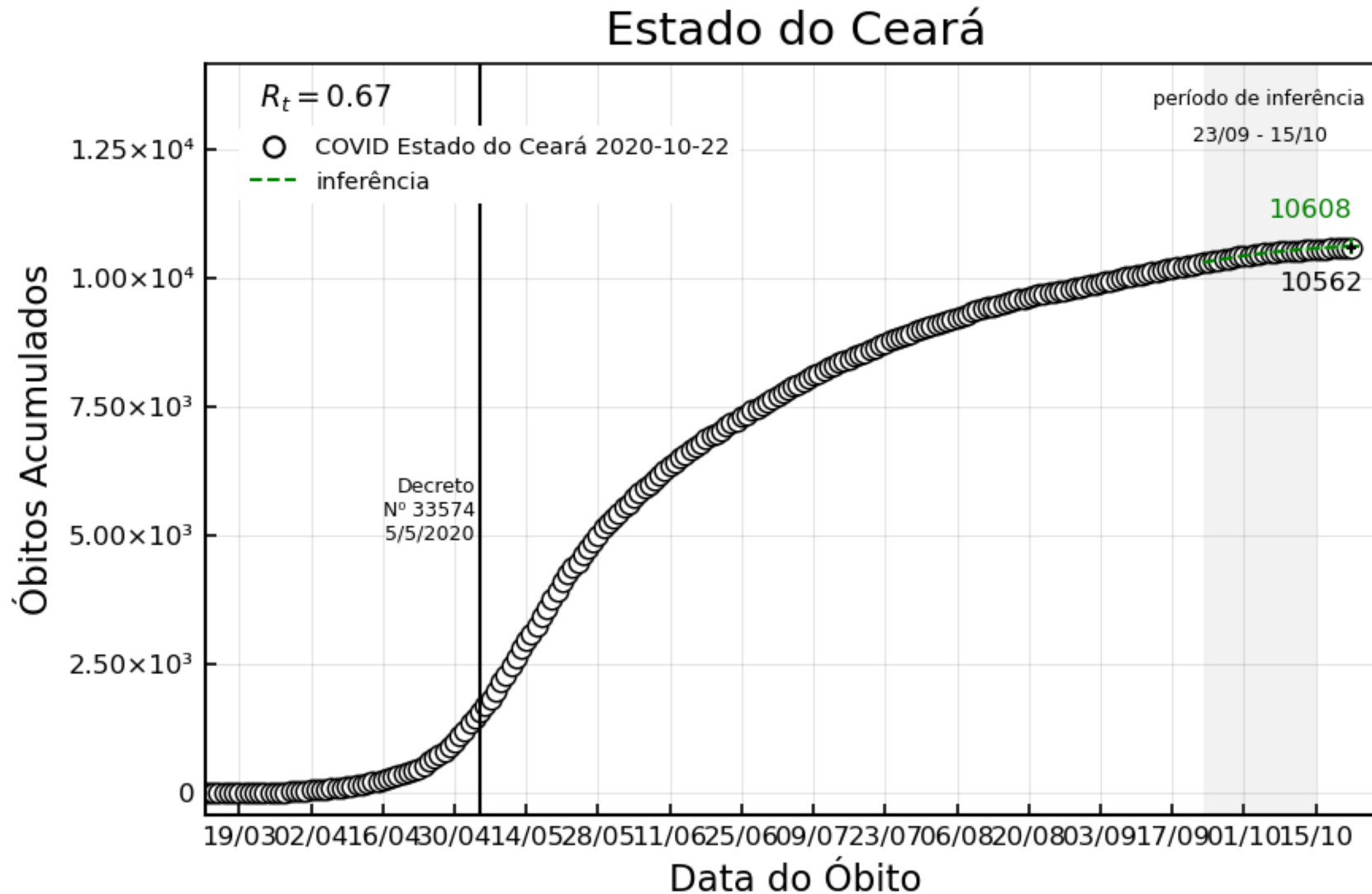


Estado do Ceará

Dados atualizados em 22/10/2020



Dados atualizados em 22/10/2020

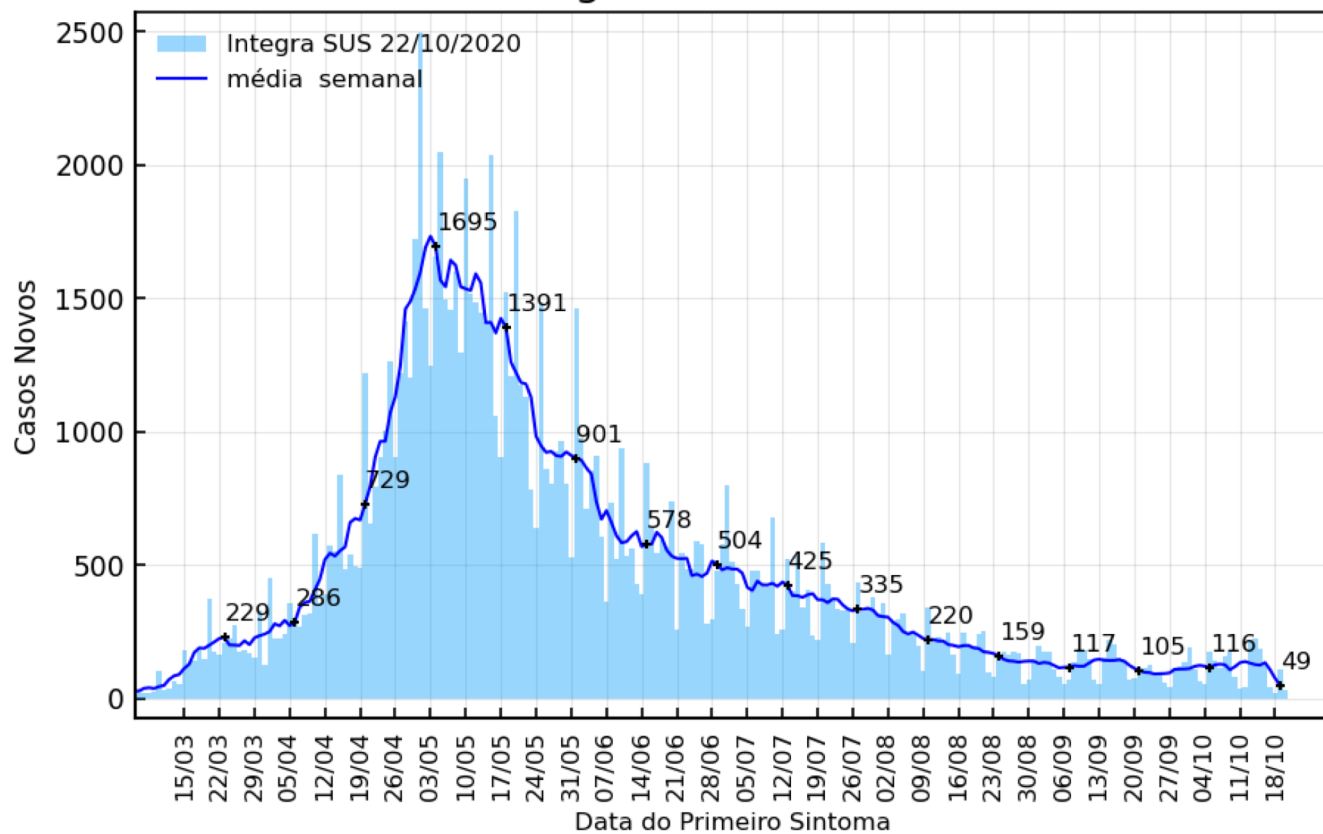


Janela de Inferência	R_t
05/08 – 04/09	0.76
12/08 – 11/09	0.77
19/08 – 18/09	0.79
26/08 – 25/09	0.82
09/09 – 01/10	0.77
16/09 – 08/10	0.63
23/09 – 15/10	0.67

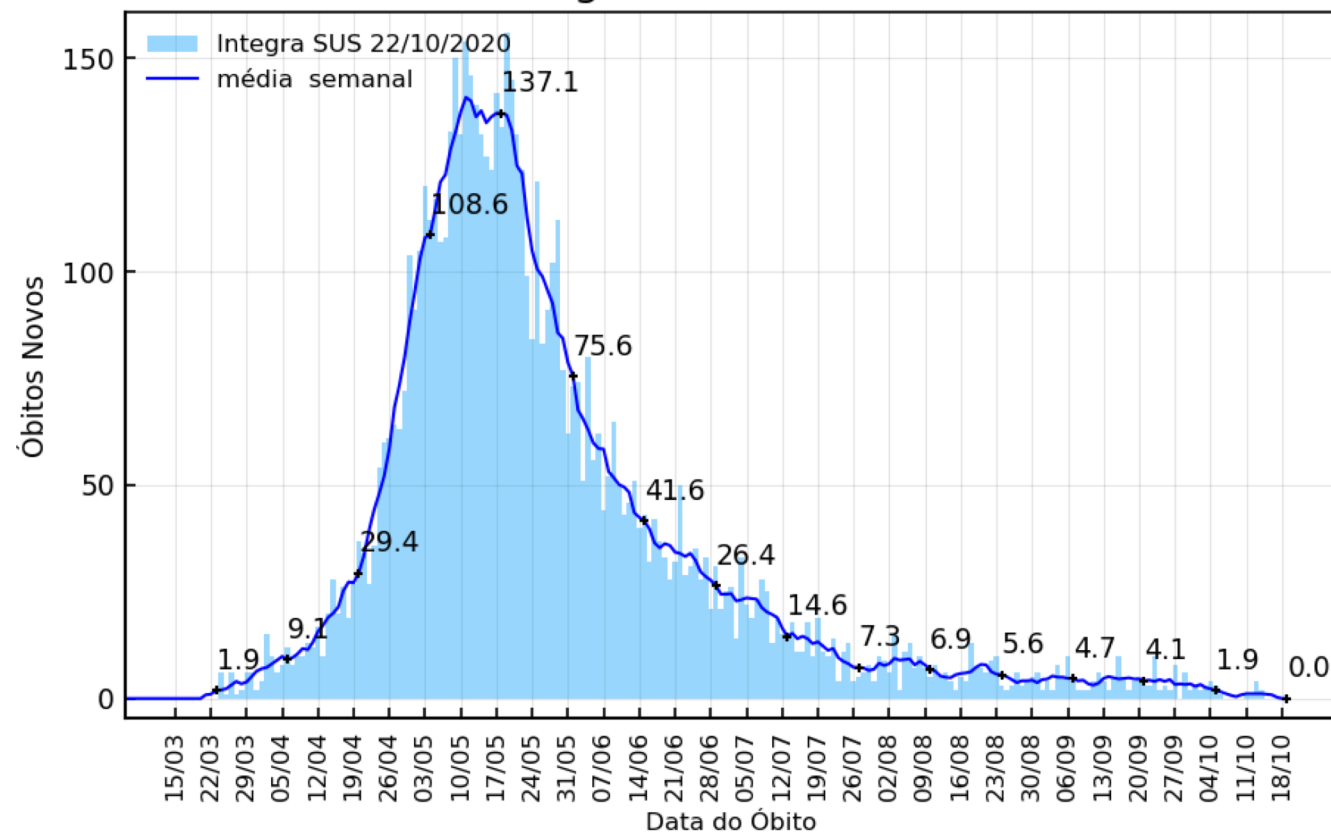
Região Fortaleza

Dados atualizados em 22/10/2020

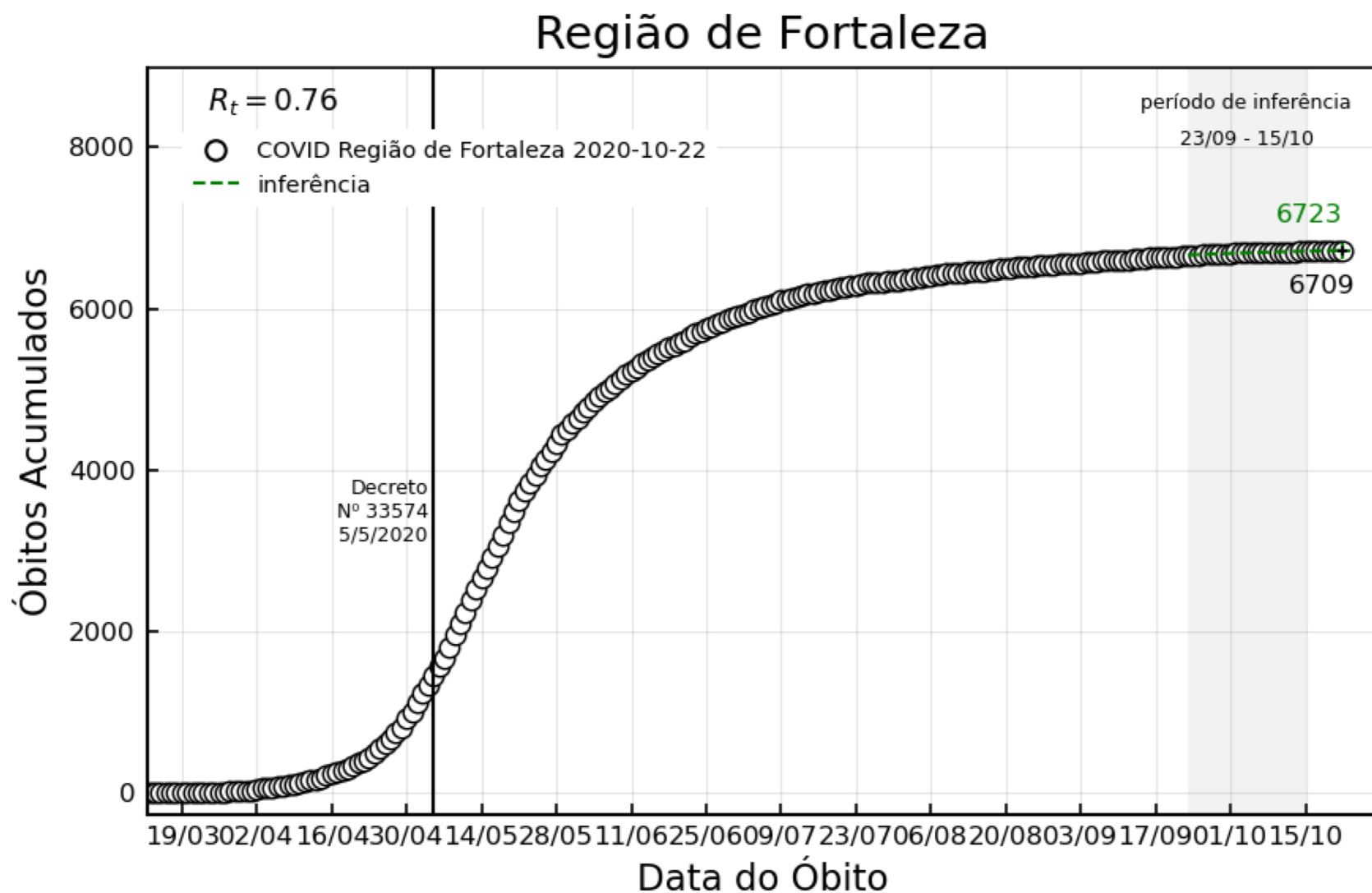
Região de Fortaleza



Região de Fortaleza



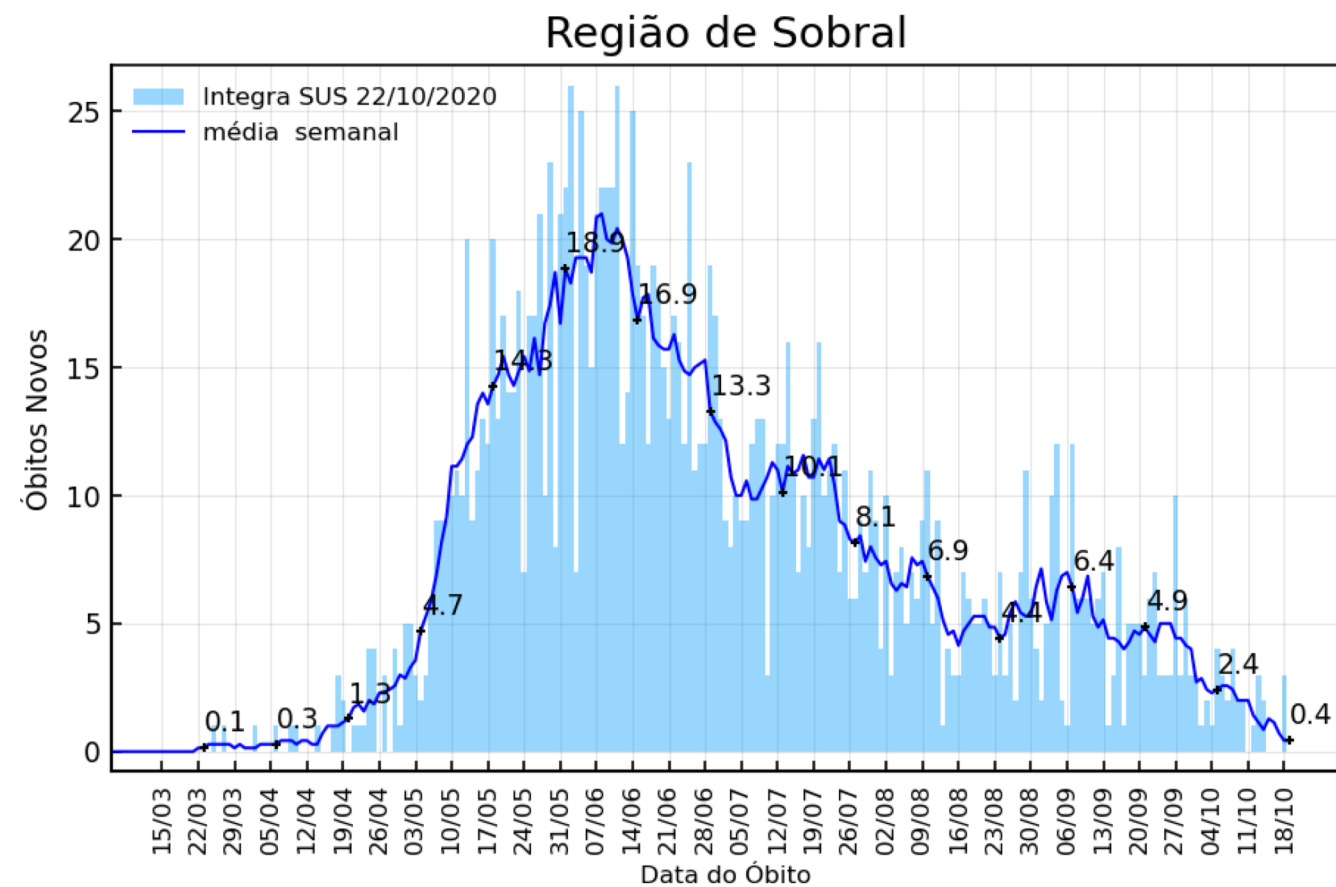
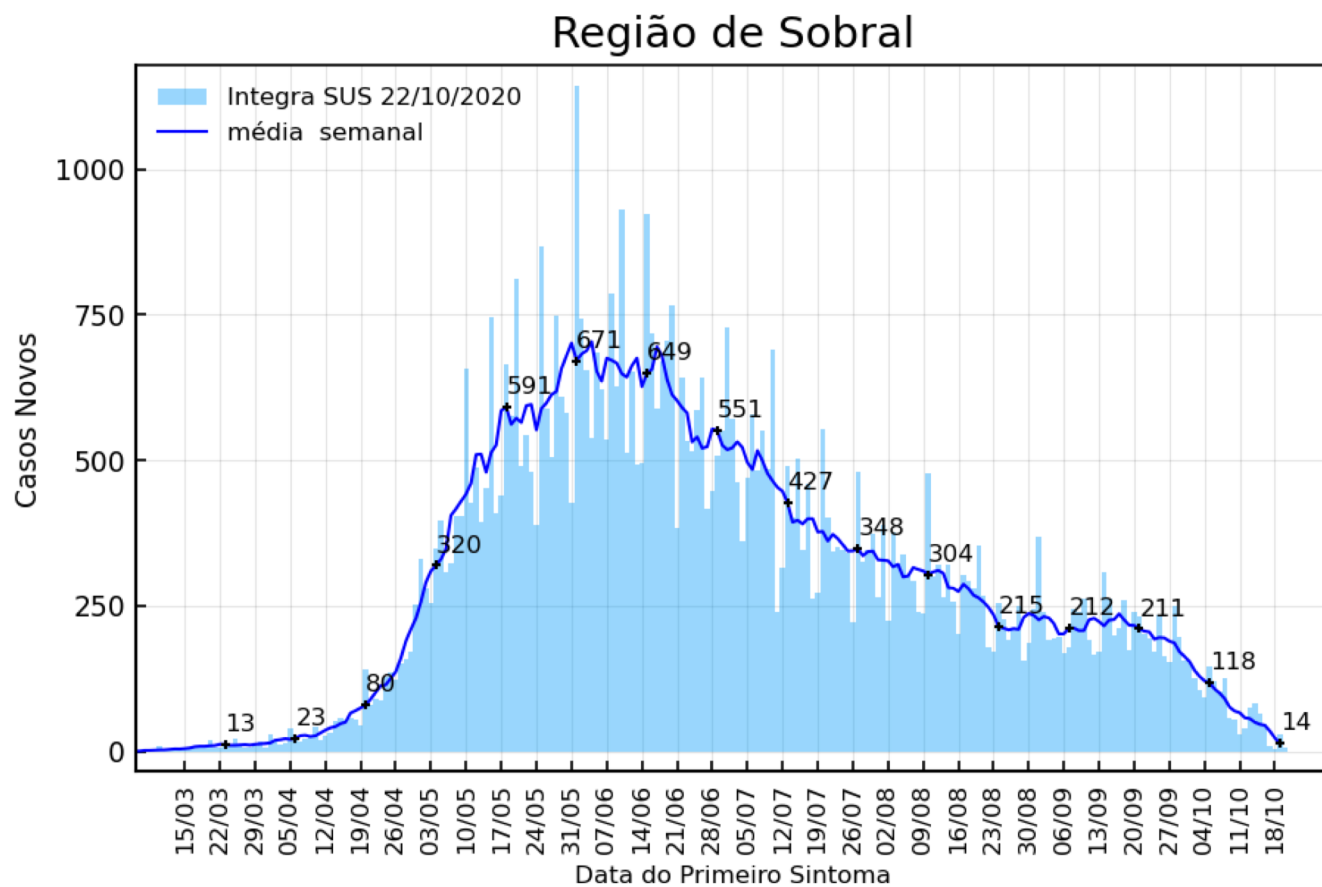
Dados atualizados em 22/10/2020



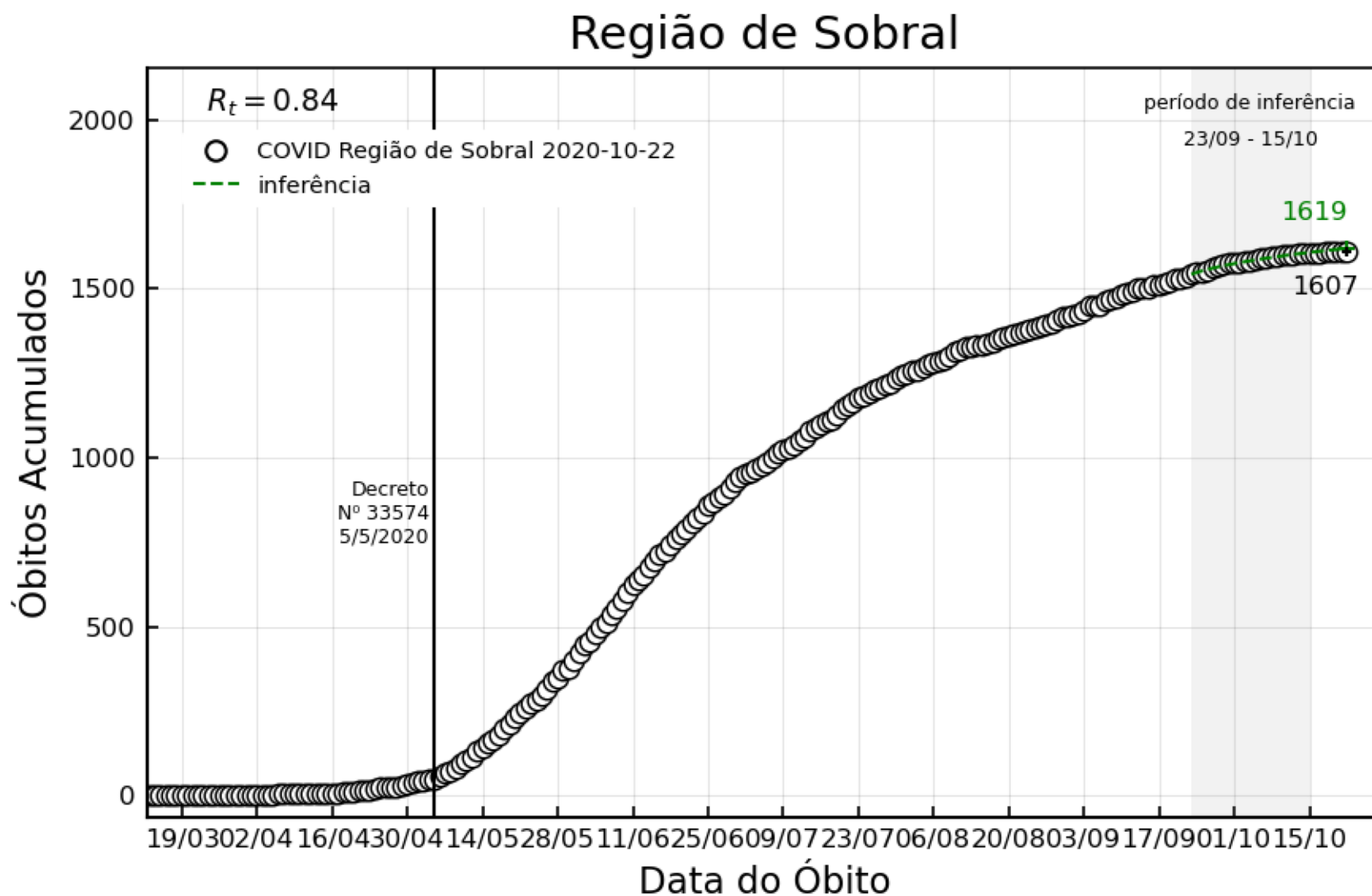
Janela de Inferência	R_t
29/07 – 28/08	0.76
05/08 – 04/09	0.81
12/08 – 11/09	0.76
19/08 – 18/09	0.75
26/08 – 25/09	0.86
09/09 – 01/10	0.75
16/09 – 08/10	0.75
23/09 – 15/10	0.76

Região Sobral

Dados atualizados em 22/10/2020



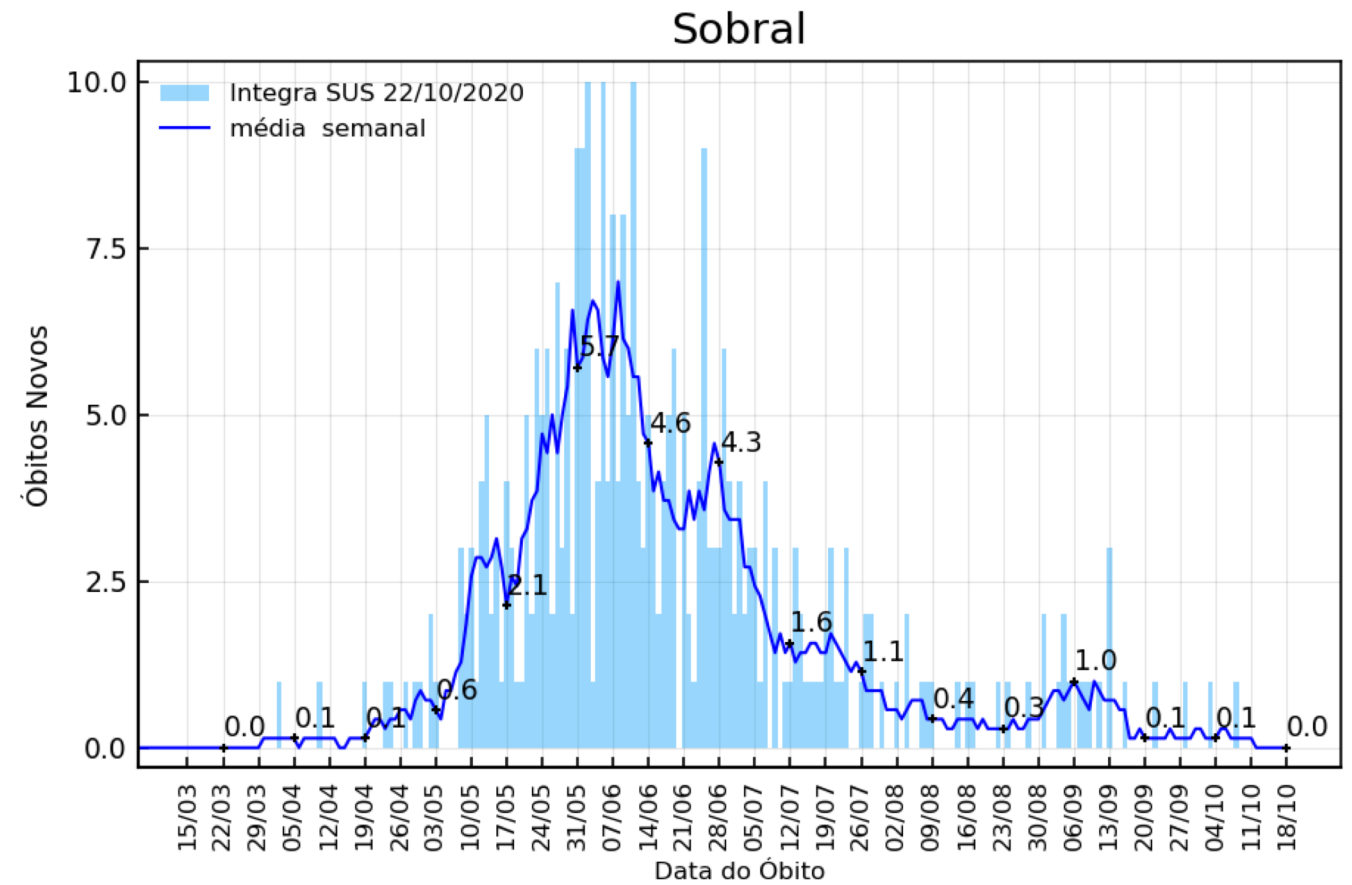
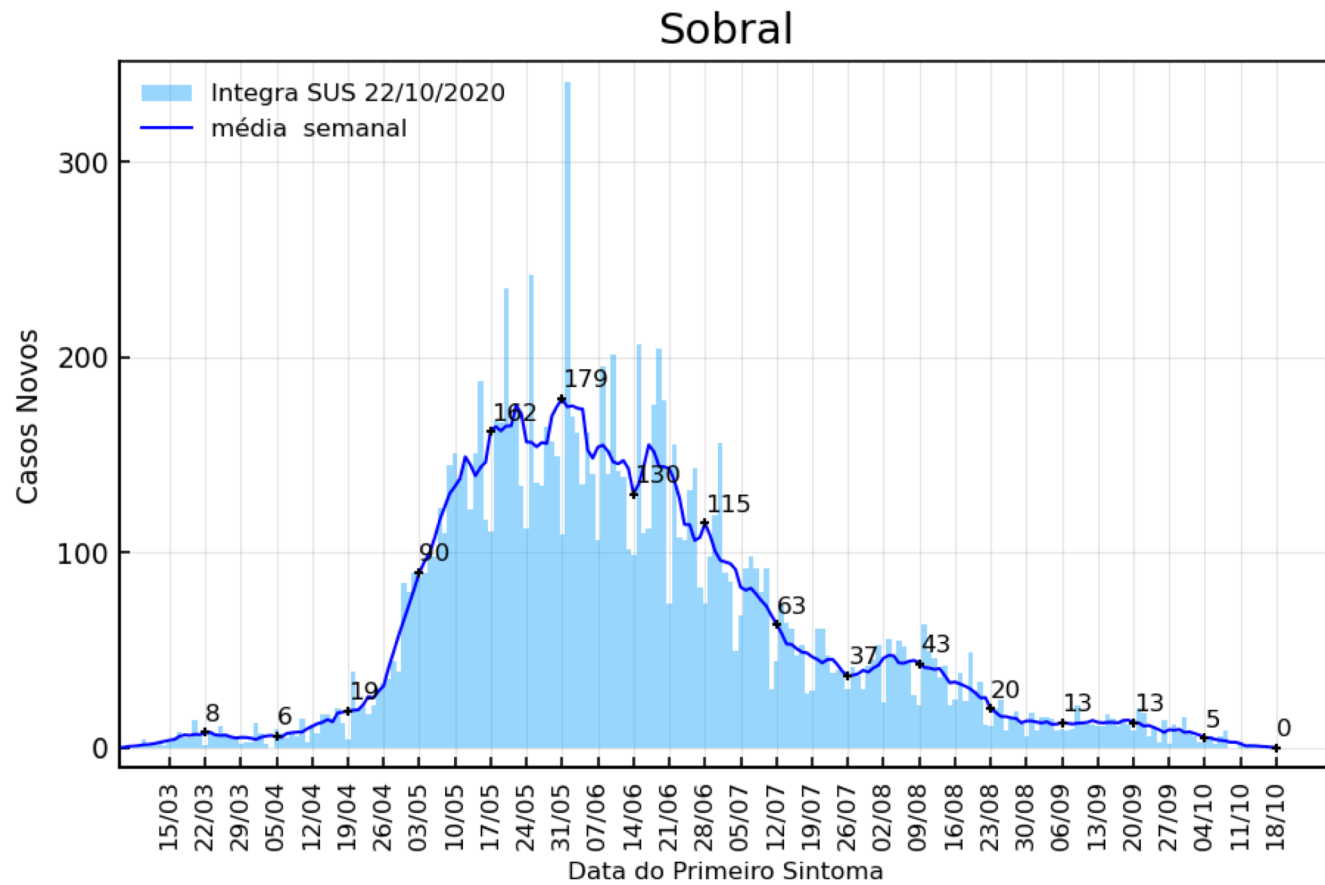
Dados atualizados em 22/10/2020



Janela de Inferência	R_t
29/07 – 28/08	0.80
05/08 – 04/09	0.82
12/08 – 11/09	1.07
19/08 – 18/09	0.95
26/08 – 25/09	0.95
09/09 – 01/10	0.97
16/09 – 08/10	0.84
23/09 – 15/10	0.84

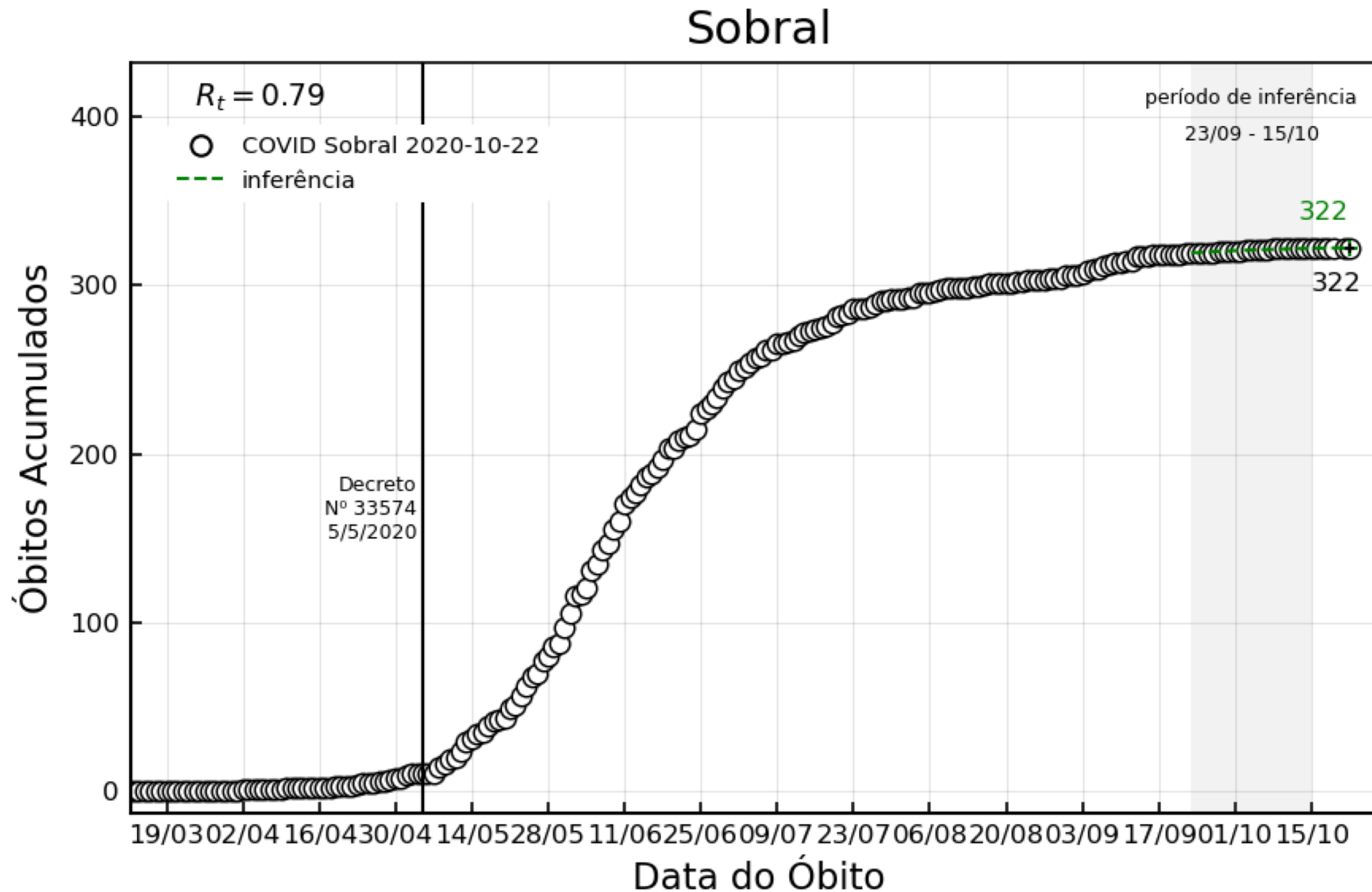
Sobral (sede)

Dados atualizados em 22/10/2020



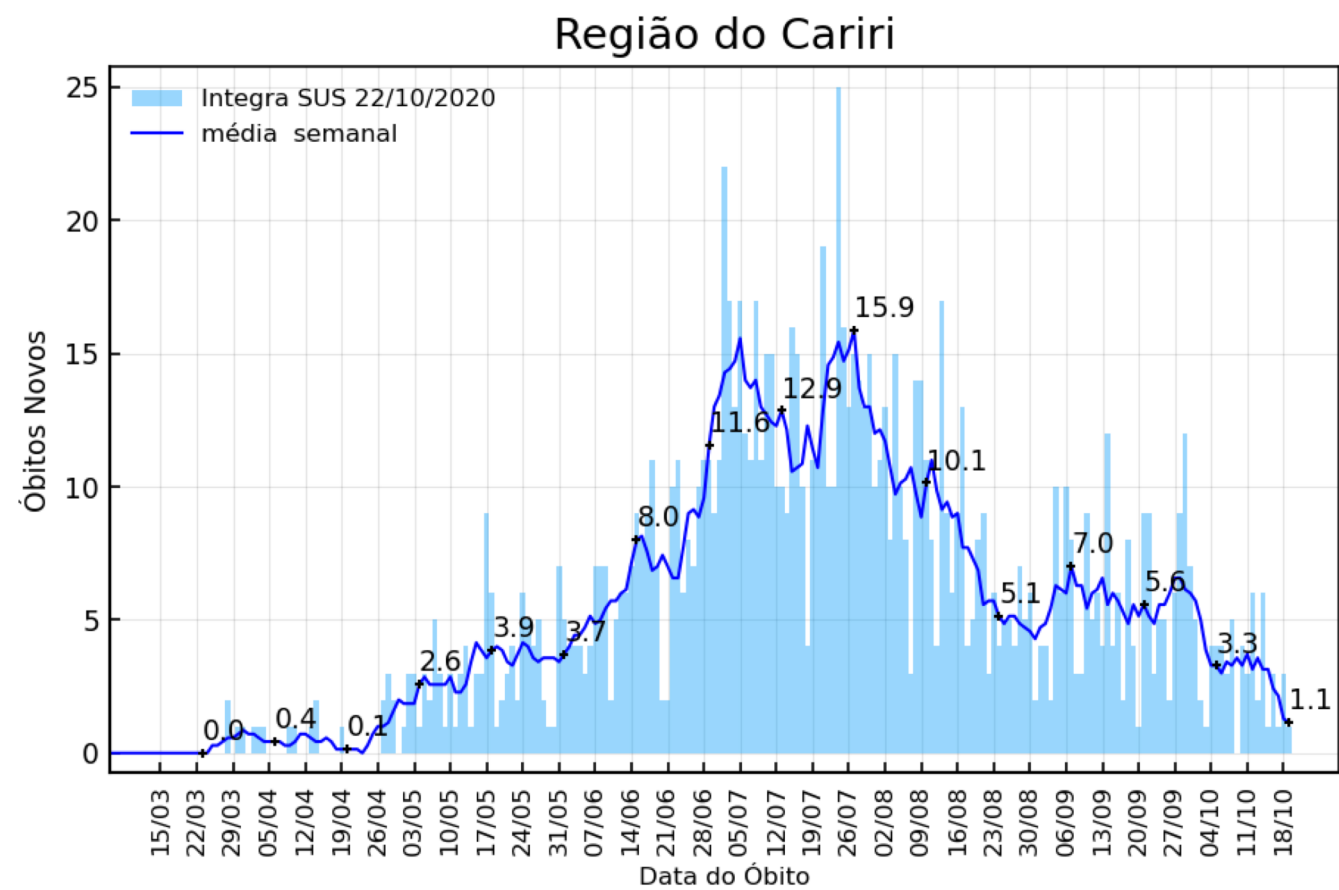
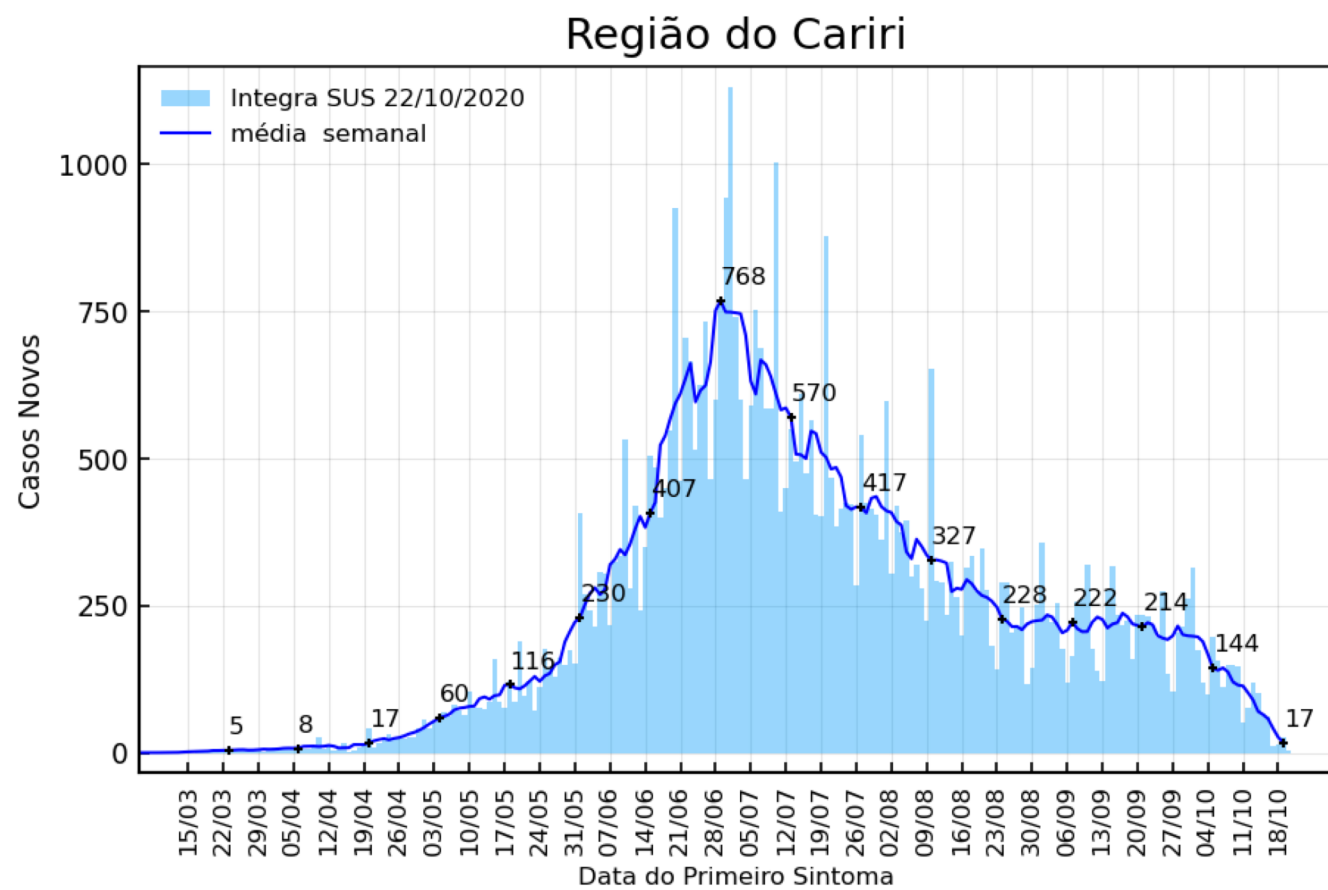
Sobral (sede)

Projeção em 22/10/2020



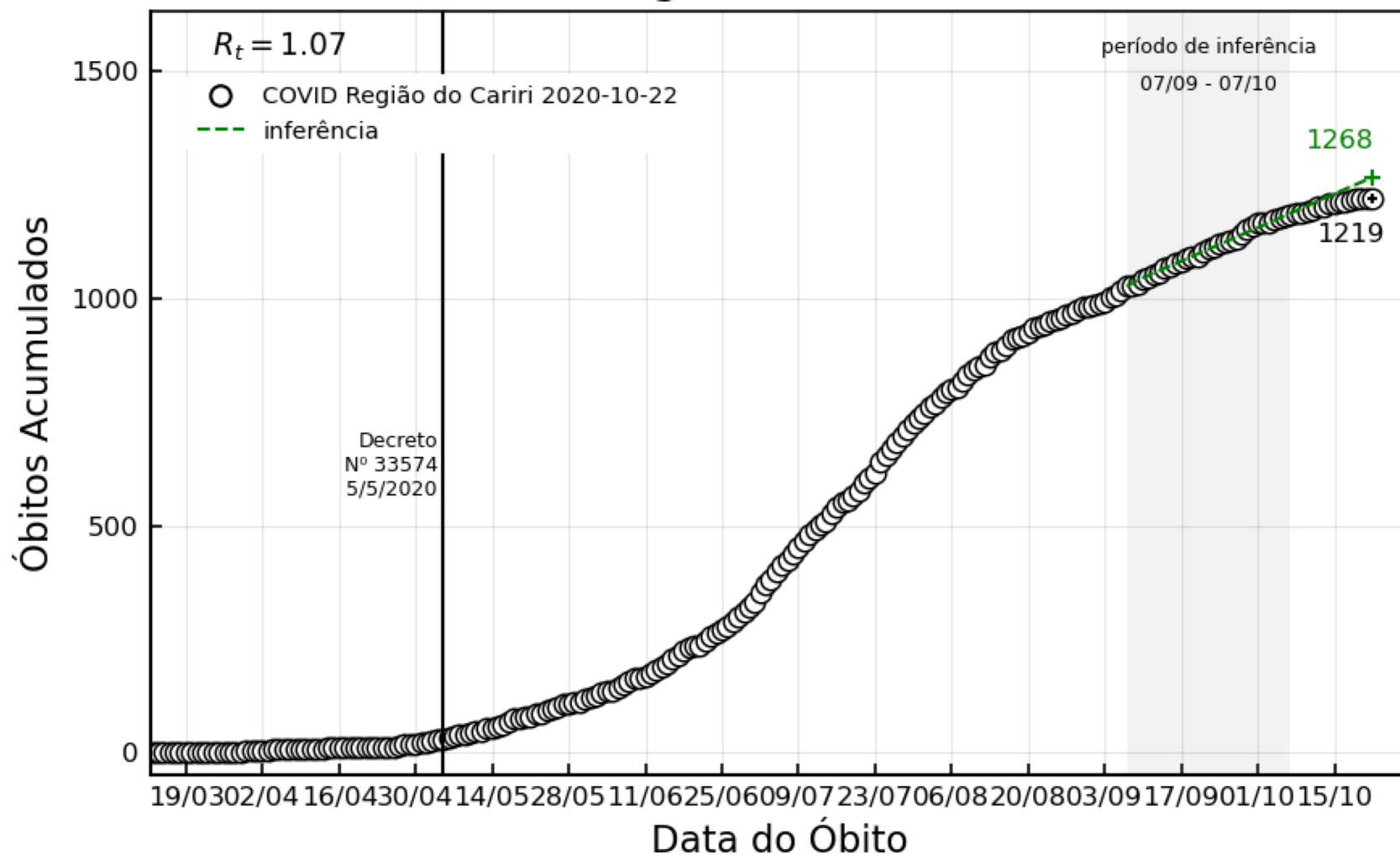
Região Cariri

Dados atualizados em 22/10/2020



Dados atualizados em 22/10/2020

Região do Cariri

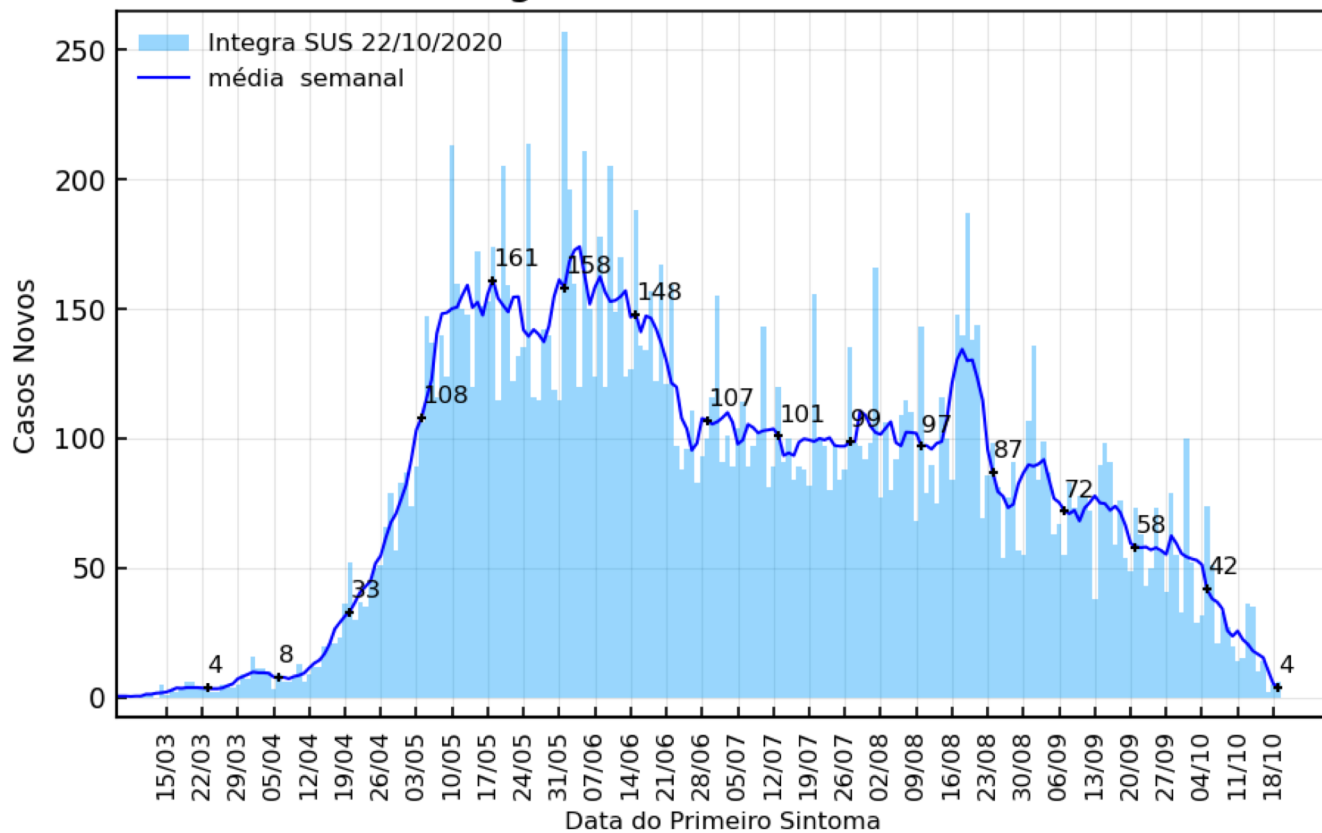


Janela de Inferência	R_t
02/08 – 03/09	0.84
09/08 – 10/09	0.90
16/08 – 17/09	0.98
23/08 – 21/09	1.01
30/08 – 29/09	1.03
07/09 – 07/10	1.07

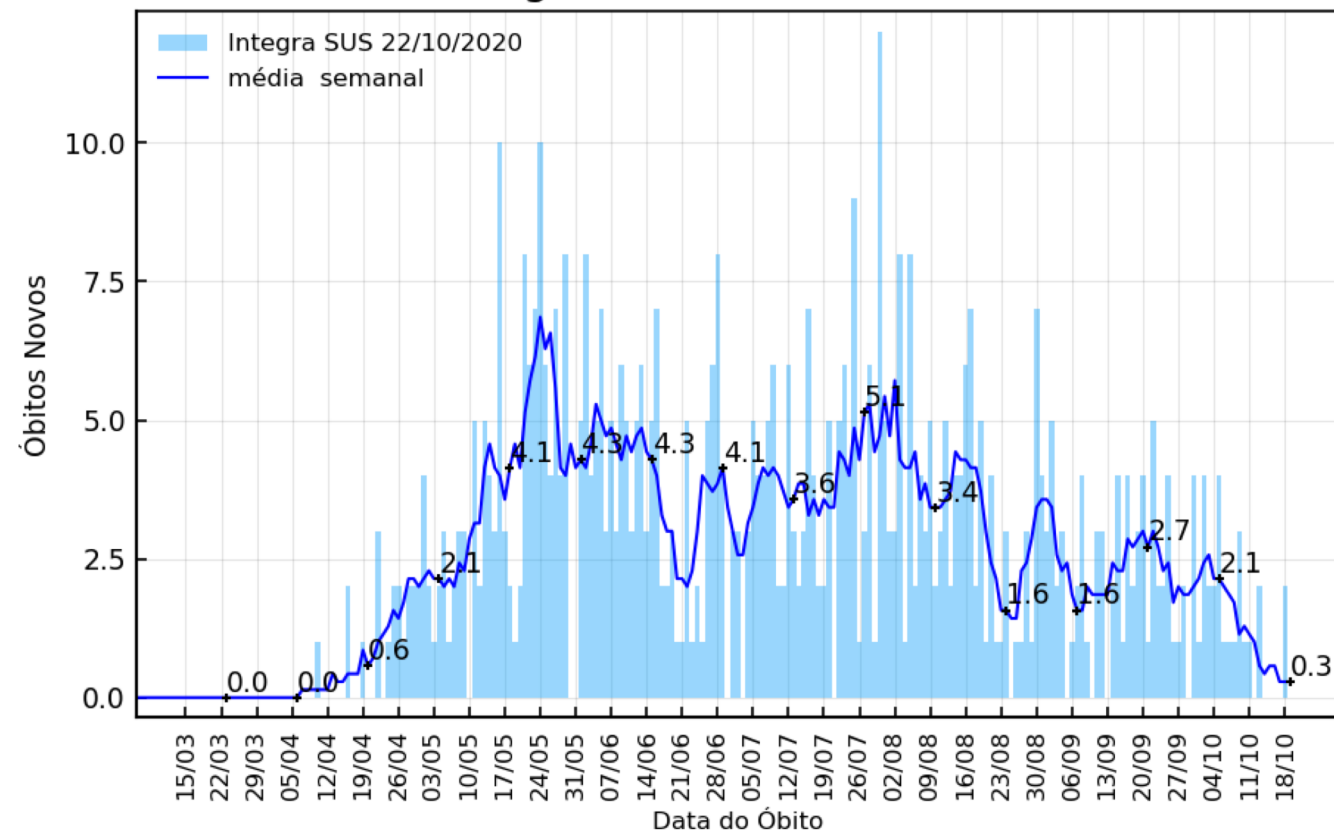
Região Sertão Central

Dados atualizados em 22/10/2020

Região do Sertão Central

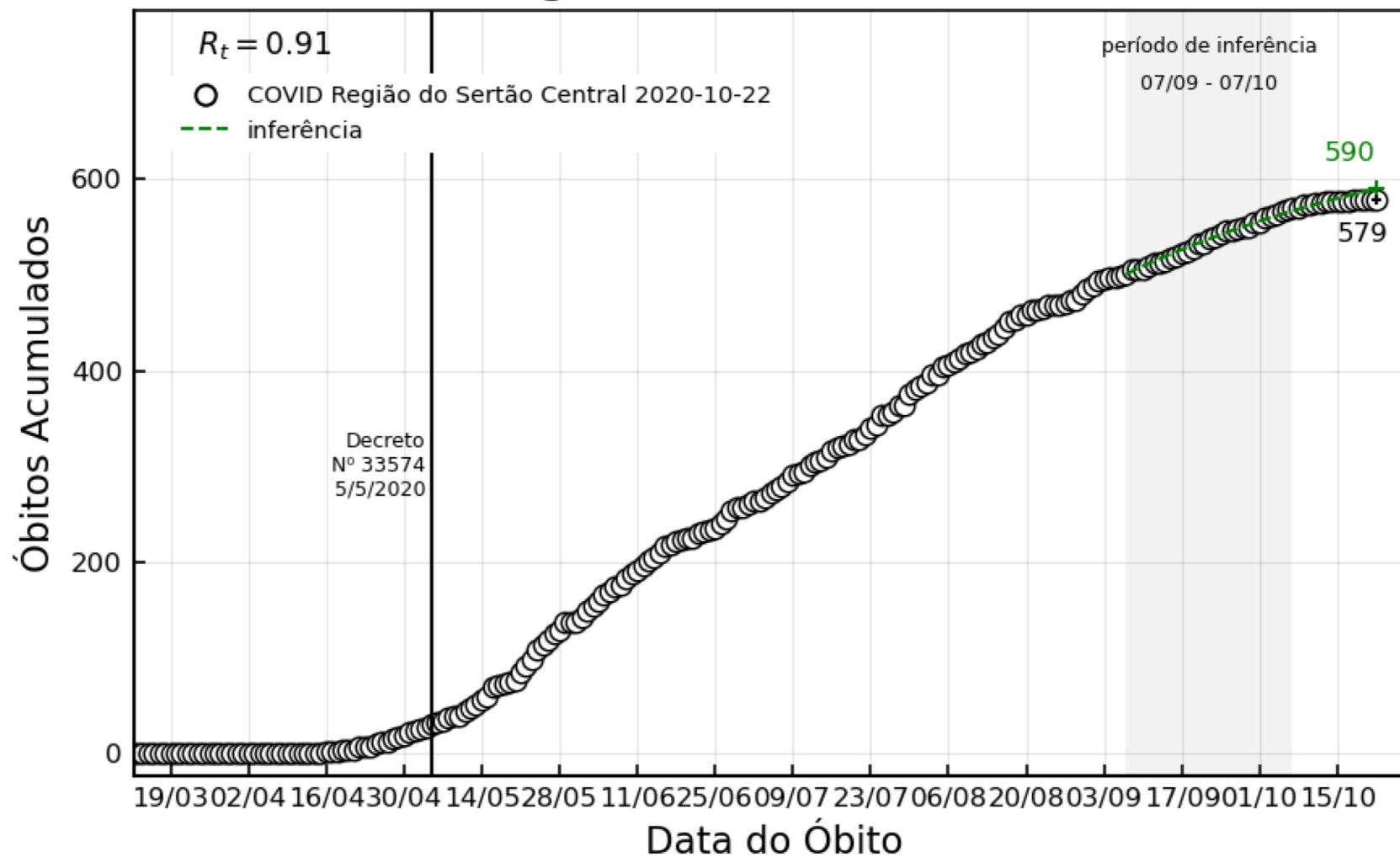


Região do Sertão Central



Dados atualizados em 22/10/2020

Região do Sertão Central



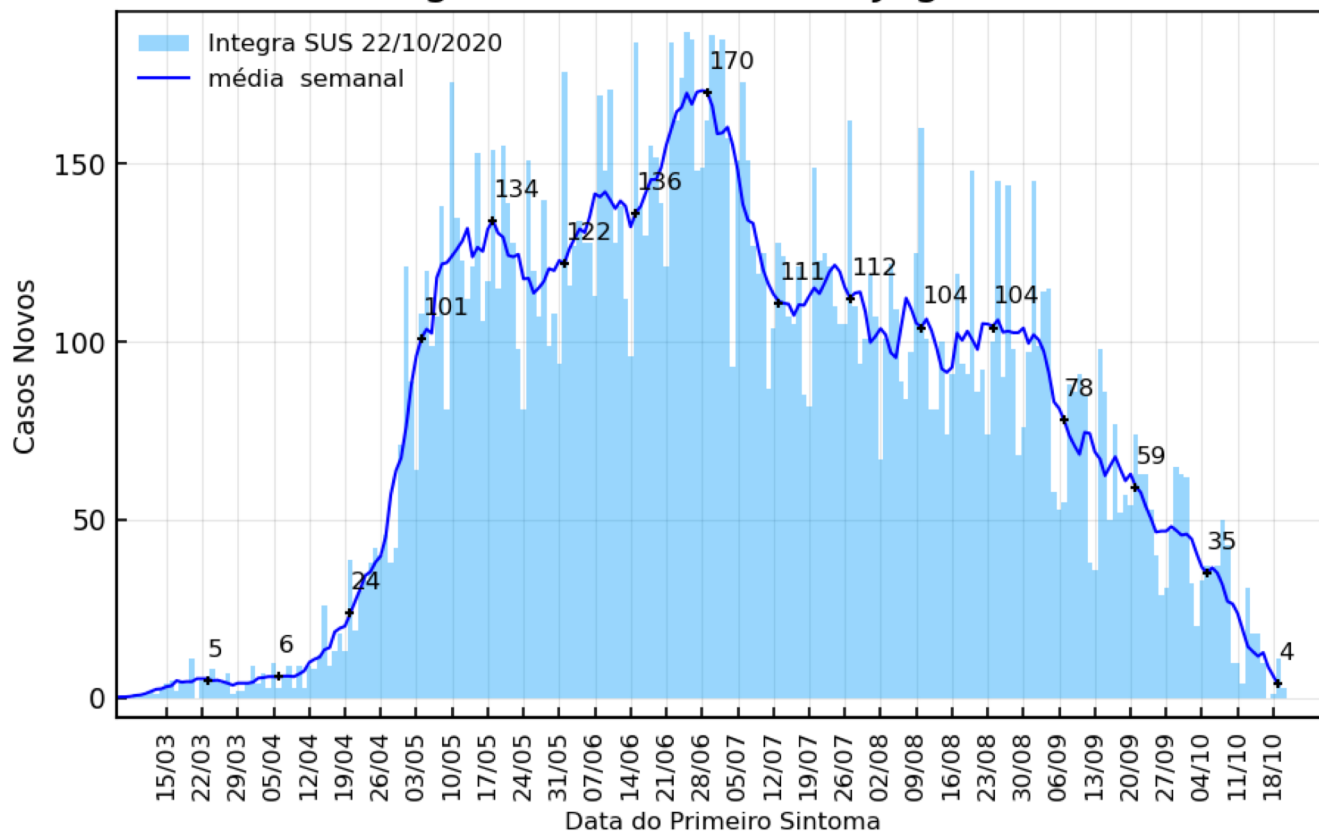
Janela de Inferência	R_t
12/07 – 13/08	1.09
19/07 – 20/08	1.06
29/07 – 31/08	0.91
05/08 – 07/09	0.78
16/08 – 15/09	0.79
23/08 – 21/09	0.79
30/08 – 29/09	0.84
07/09 – 07/10	0.91

Região

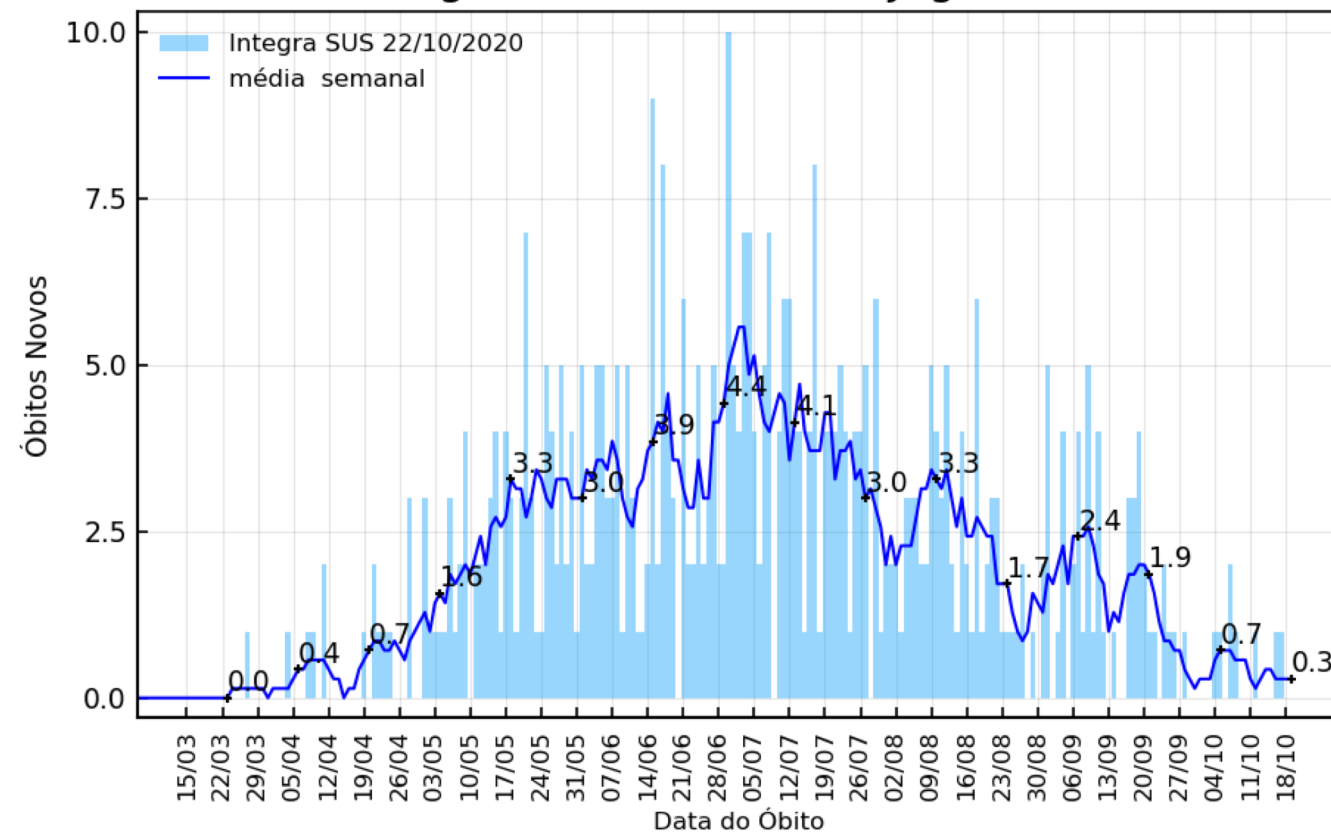
Litoral Leste/Jaguaribe

Dados atualizados em 22/10/2020

Região do Litoral Leste/Jaguaribe

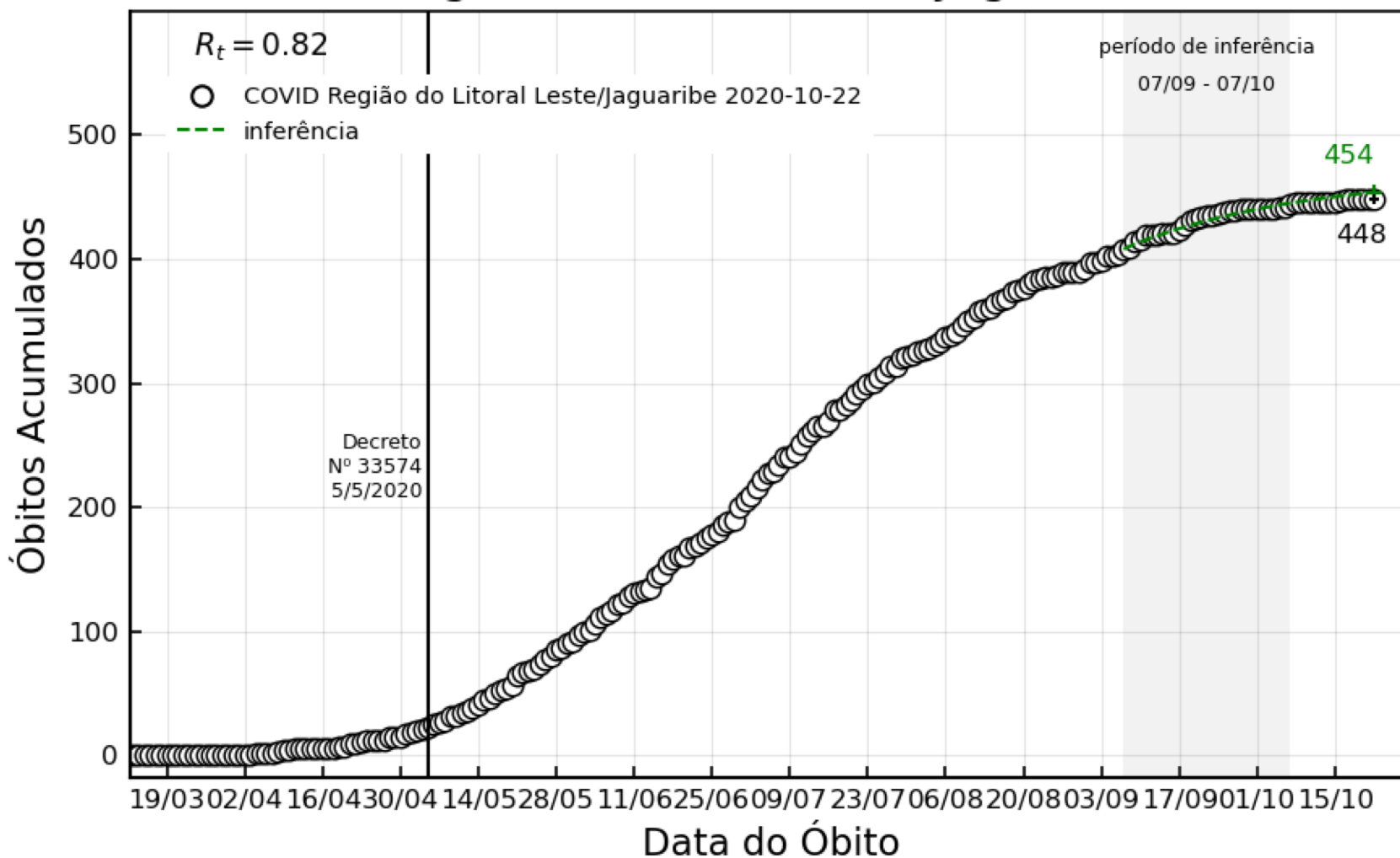


Região do Litoral Leste/Jaguaribe



Dados atualizados em 22/10/2020

Região do Litoral Leste/Jaguaribe



Janela de Inferência	R_t
12/07 – 13/08	0.91
19/07 – 20/08	0.99
29/07 – 31/08	0.90
05/08 – 07/09	0.81
16/08 – 15/09	0.80
23/08 – 21/09	0.85
30/08 – 29/09	0.86
07/09 – 07/10	0.82