

Predicciones sobre CoViD-19

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DEPARTAMENTO DE ESTATÍSTICA,
ANÁLISE MATEMÁTICA E OPTIMIZACIÓN



- Predicciones

- Predicciones Fallecidos

3 Panorama internacional

Datos

Aplicación Shiny:

<http://modestya.usc.es:3838/covid19prediction/>

Último dato fichero CCAA: 15/06/2021

Fuente: [https:](https://)

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//cnecovid.isciii.es/covid19/resources/casos_tecnica_ccaa.csv
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Predicciones: [▶ España](#) [▶ Andalucía](#) [▶ Aragón](#) [▶ Asturias](#) [▶ I. Baleares](#) [▶ Canarias](#)

► Cantabria ► Cataluña ► Castilla-La Mancha ► Castilla y León ► C. Valenciana ► Extremadura

► País Vasco ► Galicia ► Madrid ► Murcia ► Navarra ► La Rioja

► Mod Lineal ► Mod NP ► Mod Aditivo

	$10^2 \sigma_R^2$			$10^2 \sigma_R^2(\text{rob.})$			r^2		
Horiz	FLM	NP	SAM	FLM	NP	SAM	FLM	NP	SAM
H1	0.014	0.003	0.012	0.004	0.002	0.004	0.491	0.888	0.579
H4	0.047	0.026	0.042	0.037	0.02	0.036	0.816	0.904	0.832
H8	0.205	0.135	0.192	0.165	0.09	0.153	0.813	0.886	0.825
H12	0.66	0.475	0.627	0.586	0.316	0.543	0.768	0.845	0.78
H15	1.454	1.08	1.386	1.202	0.667	1.143	0.719	0.806	0.732

C **D** **E** **F** **G** **H** **I** **J** **K** **L** **M** **N** **O** **P** **Q** **R** **S** **T** **U** **V** **W** **X** **Y** **Z**

C **I** **D** **E** **F** **G** **H** **I** **J** **K** **L** **M** **N** **O** **P** **Q** **R** **S** **T** **U** **V** **W** **X** **Y** **Z**

Tabla Ratio Incr. Confirmados: Mod. Lineal.

Last=15/06/2021

	Last	H1	H4	H8	H12	H15
España	0.0006	0.0011	0.0024	0.0046	0.0052	0.0067
Andalucía	0.0011	0.0018	0.0042	0.0077	0.0097	0.0118
Aragón	0.0005	0.0010	0.0020	0.0040	0.0044	0.0058
Asturias	0.0005	0.0011	0.0021	0.0039	0.0040	0.0050
Canarias	0.0017	0.0024	0.0070	0.0139	0.0196	0.0250
Cantabria	0.0006	0.0011	0.0028	0.0063	0.0081	0.0110
Castilla.y.León	0.0005	0.0010	0.0022	0.0045	0.0052	0.0068
Castilla.La.Mancha	0.0003	0.0009	0.0014	0.0026	0.0020	0.0025
Cataluña	0.0006	0.0013	0.0029	0.0058	0.0071	0.0093
Ceuta	0.0005	0.0007	0.0012	0.0025	0.0018	0.0022
Comunidad.Valenciana	0.0002	0.0008	0.0012	0.0026	0.0023	0.0032
Extremadura	0.0005	0.0011	0.0022	0.0047	0.0056	0.0074
Galicia	0.0004	0.0010	0.0019	0.0039	0.0042	0.0055
Islas.Baleares	0.0004	0.0011	0.0019	0.0037	0.0039	0.0050
La.Rioja	0.0006	0.0011	0.0022	0.0040	0.0040	0.0049
Madrid	0.0004	0.0009	0.0015	0.0030	0.0027	0.0035
Melilla	0.0002	0.0007	0.0007	0.0011	0.0000	0.0000
Murcia	0.0003	0.0009	0.0016	0.0035	0.0037	0.0050
Navarra	0.0006	0.0010	0.0022	0.0048	0.0056	0.0074
País.Vasco	0.0005	0.0009	0.0014	0.0026	0.0019	0.0023

Cuadro: Previsión Ratio Incr. Confirmados: Mod. lineal - Horiz. (días).

Tabla Ratio Incr. Confirmados: Mod. No Paramétrico.

Last=15/06/2021

	Last	H1	H4	H8	H12	H15
España	0.0006	0.0012	0.0046	0.0097	0.0153	0.0205
Andalucía	0.0011	0.0019	0.0071	0.0151	0.0233	0.0307
Aragón	0.0005	0.0011	0.0042	0.0090	0.0142	0.0191
Asturias	0.0005	0.0012	0.0045	0.0097	0.0152	0.0205
Canarias	0.0017	0.0021	0.0078	0.0167	0.0259	0.0344
Cantabria	0.0006	0.0012	0.0045	0.0096	0.0151	0.0203
Castilla.y.León	0.0005	0.0011	0.0042	0.0089	0.0141	0.0191
Castilla.La.Mancha	0.0003	0.0010	0.0039	0.0084	0.0133	0.0180
Cataluña	0.0006	0.0012	0.0046	0.0098	0.0153	0.0206
Ceuta	0.0005	0.0015	0.0054	0.0114	0.0176	0.0234
Comunidad.Valenciana	0.0002	0.0009	0.0033	0.0073	0.0116	0.0159
Extremadura	0.0005	0.0010	0.0039	0.0085	0.0134	0.0182
Galicia	0.0004	0.0010	0.0039	0.0084	0.0133	0.0181
Islas.Baleares	0.0004	0.0010	0.0038	0.0082	0.0129	0.0176
La.Rioja	0.0006	0.0014	0.0054	0.0114	0.0177	0.0236
Madrid	0.0004	0.0011	0.0040	0.0086	0.0136	0.0184
Melilla	0.0002	0.0010	0.0037	0.0080	0.0127	0.0172
Murcia	0.0003	0.0009	0.0035	0.0077	0.0122	0.0166
Navarra	0.0006	0.0012	0.0045	0.0096	0.0150	0.0202
País.Vasco	0.0005	0.0013	0.0048	0.0103	0.0160	0.0214

Cuadro: Previsión Ratio Incr. Confirmados: Mod. No Paramétrico - Horiz. (días).

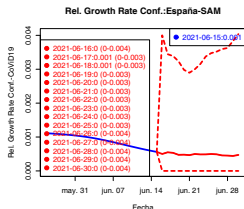
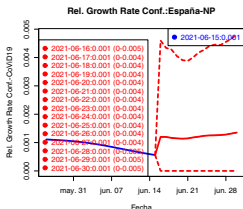
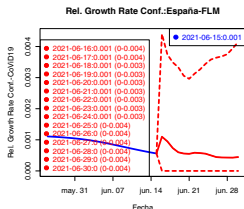
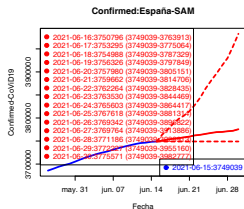
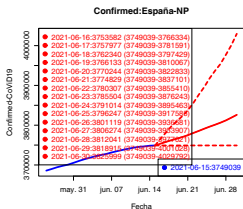
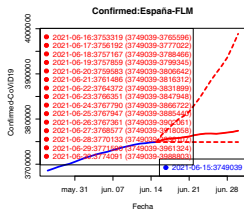
Tabla Ratio Incr. Confirmados: Mod. Aditivo.

Last=15/06/2021

	Last	H1	H4	H8	H12	H15
España	0.0006	0.0005	0.0019	0.0039	0.0055	0.0071
Andalucía	0.0011	0.0010	0.0036	0.0062	0.0077	0.0086
Aragón	0.0005	0.0003	0.0015	0.0032	0.0049	0.0066
Asturias	0.0005	0.0005	0.0018	0.0032	0.0043	0.0051
Canarias	0.0017	0.0020	0.0069	0.0129	0.0187	0.0233
Cantabria	0.0006	0.0006	0.0025	0.0059	0.0092	0.0127
Castilla.y.León	0.0005	0.0004	0.0018	0.0036	0.0055	0.0069
Castilla.La.Mancha	0.0003	0.0002	0.0011	0.0020	0.0028	0.0038
Cataluña	0.0006	0.0006	0.0025	0.0052	0.0079	0.0106
Ceuta	0.0005	0.0000	0.0000	0.0000	0.0000	0.0000
Comunidad.Valenciana	0.0002	0.0002	0.0010	0.0019	0.0035	0.0050
Extremadura	0.0005	0.0004	0.0019	0.0039	0.0062	0.0083
Galicia	0.0004	0.0004	0.0016	0.0032	0.0050	0.0067
Islas.Baleares	0.0004	0.0004	0.0017	0.0031	0.0050	0.0070
La.Rioja	0.0006	0.0003	0.0014	0.0024	0.0027	0.0026
Madrid	0.0004	0.0002	0.0011	0.0022	0.0032	0.0040
Melilla	0.0002	0.0000	0.0002	0.0005	0.0008	0.0015
Murcia	0.0003	0.0003	0.0014	0.0028	0.0047	0.0064
Navarra	0.0006	0.0004	0.0017	0.0038	0.0055	0.0070
País.Vasco	0.0005	0.0001	0.0007	0.0015	0.0012	0.0007

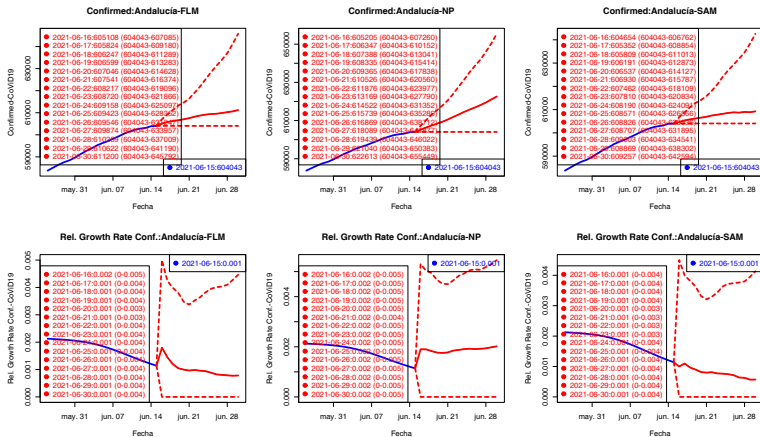
Cuadro: Previsión Ratio Incr. Confirmados: Mod. Aditivo - Horiz. (días).

Confirmados: España



Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

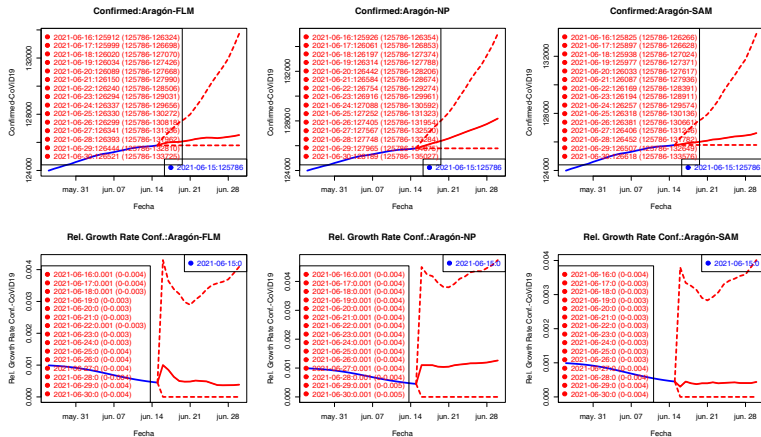
Confirmados: Andalucía



Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

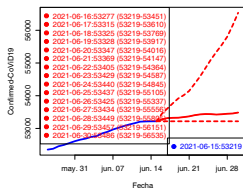
◀ Confirmados ▶ Fallecidos

Confirmados: Aragón

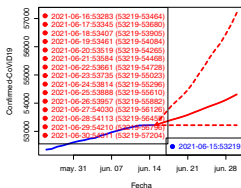


Confirmados: Asturias

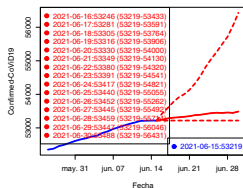
Confirmed: Asturias-FLM



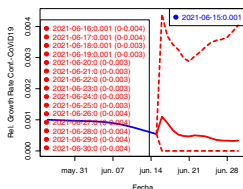
Confirmed: Asturias-NP



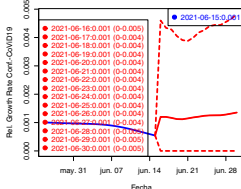
Confirmed: Asturias-SAM



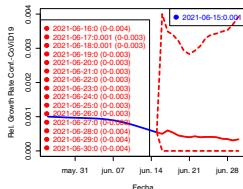
Rel. Growth Rate Conf.: Asturias-FLM



Rel. Growth Rate Conf.: Asturias-NP

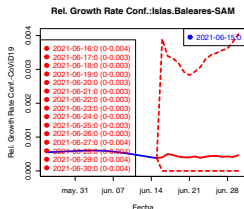
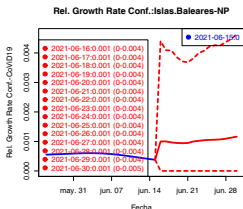
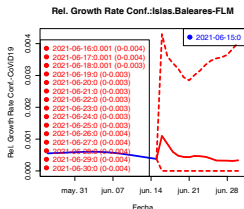
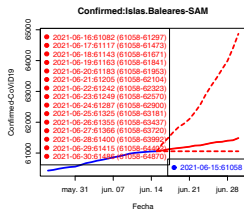
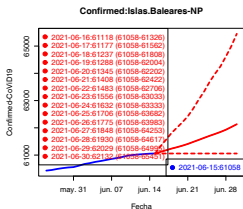
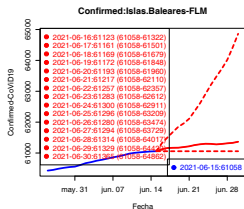


Rel. Growth Rate Conf.: Asturias-SAM



Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

Confirmados: Islas Baleares

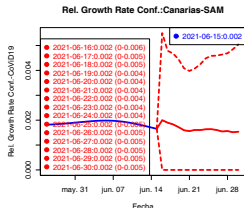
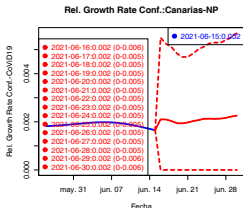
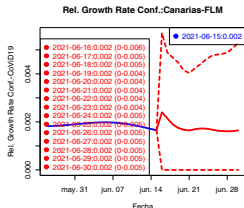
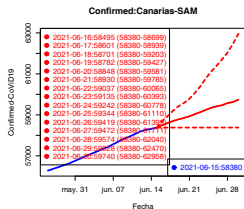
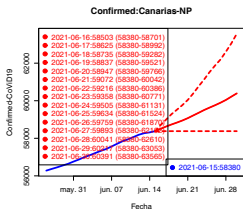
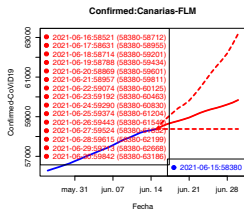


Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Confirmados: Canarias

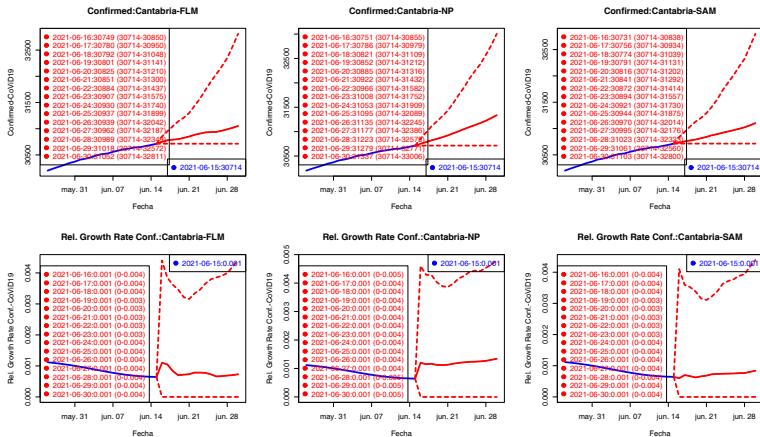


Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

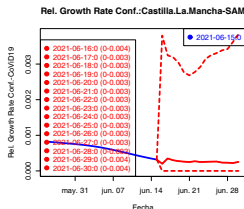
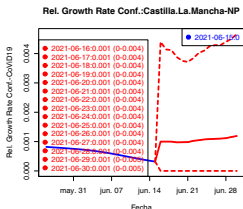
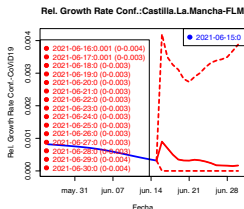
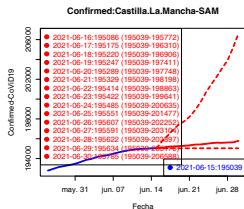
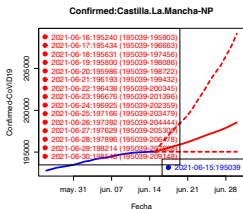
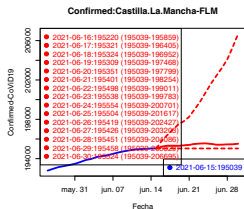
◀ Fallecidos

Confirmados: Cantabria



Los valores del Ratio de incremento de H2–H15 están rescalados a H1 para su comparación gráfica.

Confirmados: Castilla-La Mancha



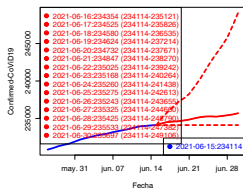
Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

← Confirmados

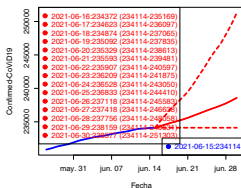
← Fallecidos

Confirmados: Castilla y León

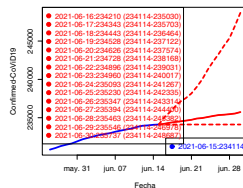
Confirmed:Castilla.yLeón-FLM



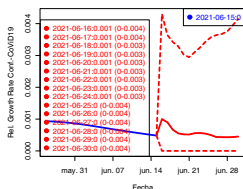
Confirmed:Castilla.yLeón-NP



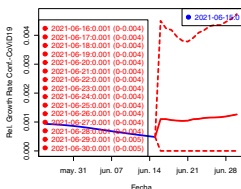
Confirmed:Castilla.yLeón-SAM



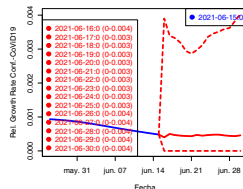
Rel. Growth Rate Conf.:Castilla.yLeón-FLM



Rel. Growth Rate Conf.:Castilla.yLeón-NP



Rel. Growth Rate Conf.:Castilla.yLeón-SAM



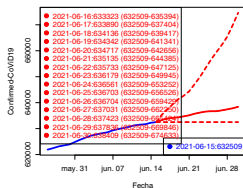
Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

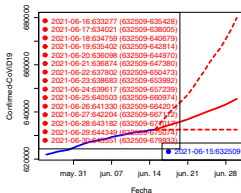
◀ Fallecidos

Confirmados: Cataluña

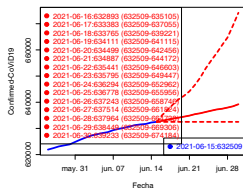
Confirmed:Cataluña-FLM



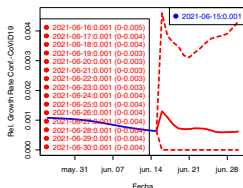
Confirmed:Cataluña-NP



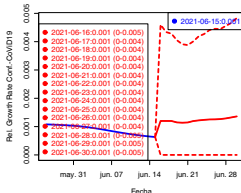
Confirmed:Cataluña-SAM



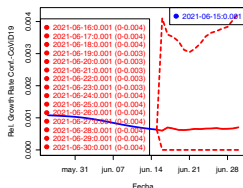
Rel. Growth Rate Conf.:Cataluña-FLM



Rel. Growth Rate Conf.:Cataluña-NP



Rel. Growth Rate Conf.:Cataluña-SAM



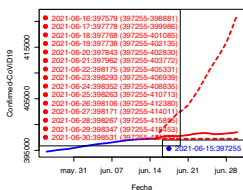
Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

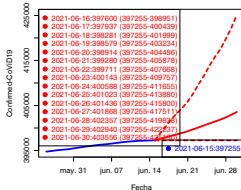
◀ Fallecidos

Confirmados: C. Valenciana

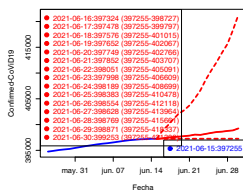
Confirmed:Comunidad.Valenciana-FLM



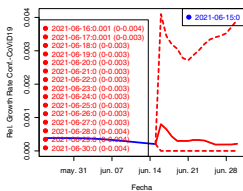
Confirmed:Comunidad.Valenciana-NP



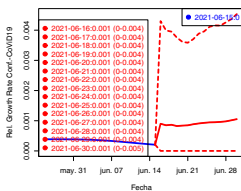
Confirmed:Comunidad.Valenciana-SAM



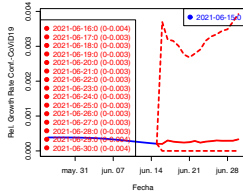
Rel. Growth Rate Conf.:Comunidad.Valenciana-FLM



Rel. Growth Rate Conf.:Comunidad.Valenciana-NP



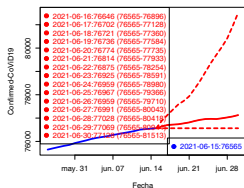
Rel. Growth Rate Conf.:Comunidad.Valenciana-SAM



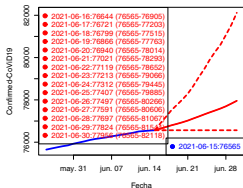
Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

Confirmados: Extremadura

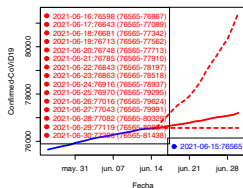
Confirmed:Extremadura-FLM



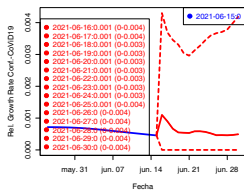
Confirmed:Extremadura-NP



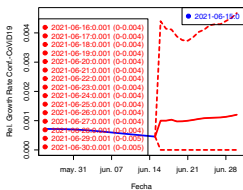
Confirmed:Extremadura-SAM



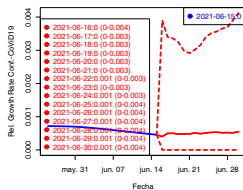
Rel. Growth Rate Conf.:Extremadura-FLM



Rel. Growth Rate Conf.:Extremadura-NP



Rel. Growth Rate Conf.:Extremadura-SAM

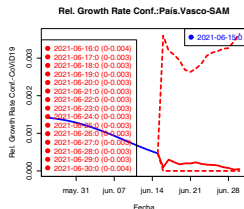
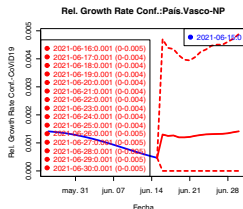
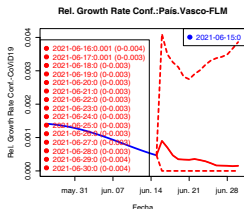
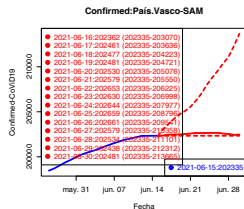
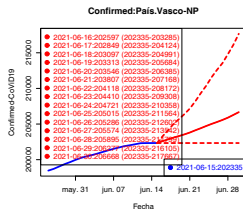
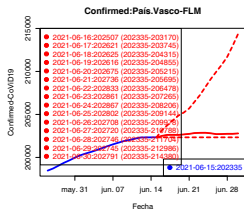


Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Confirmados: País Vasco

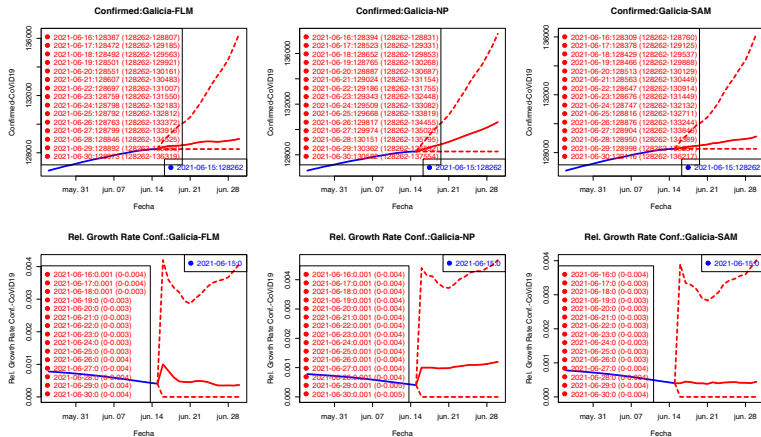


Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

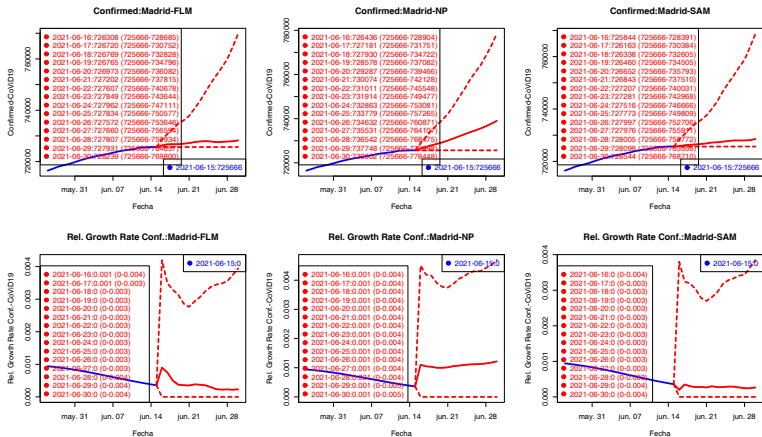
Confirmados: Galicia



Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados ▶ Fallecidos

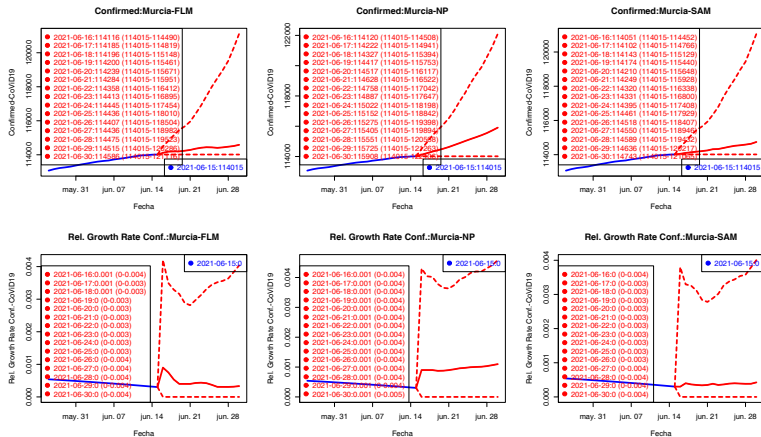
Confirmados: Madrid



Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados ▶ Fallecidos

Confirmados: Murcia

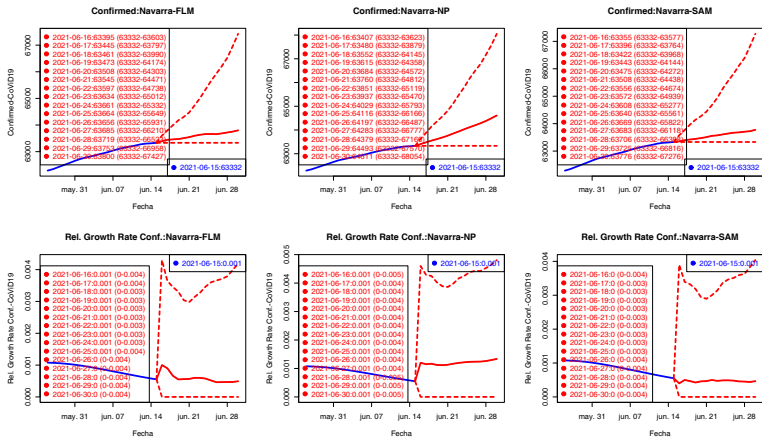


Los valores del Ratio de incremento de H2–H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

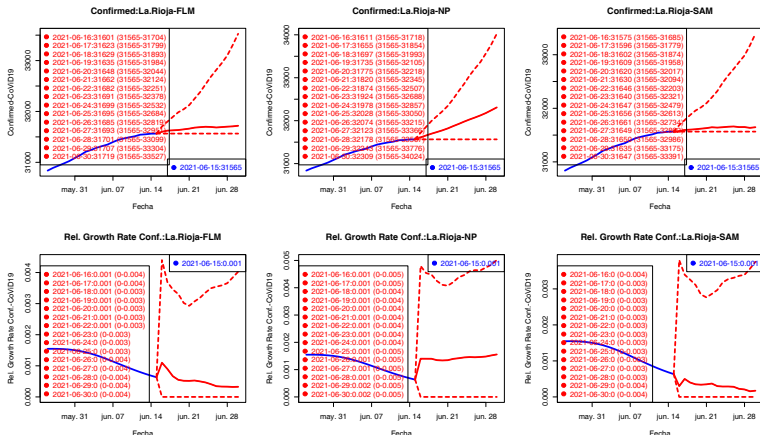
Confirmados: Navarra



Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados ▶ Fallecidos

Confirmados: La Rioja



Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

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- 1 Casos Confirmados
 - Predicciones
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- 3 Panorama internacional

Modelos para fallecidos por CoViD-19

Último dato: 15/06/2021 Fuente: https://cnecovid.isciii.es/covid19/resources/casos_hosp_uci_def_sexo_edad_provres.csv

Predicciones:

▶ España

▶ Andalucía

▶ Aragón

▶ Asturias

▶ I. Baleares

▶ Canarias

▶ Cantabria

▶ Castilla-La Mancha

▶ Castilla y León

▶ Cataluña

▶ C. Valenciana

▶ Extremadura

▶ País Vasco

▶ Galicia

▶ Madrid

▶ Murcia

▶ Navarra

▶ La Rioja

▶ Mod Lineal

▶ Mod NP

▶ Mod Aditivo

	$10^2 \sigma_R^2$			$10^2 \sigma_R^2(rob.)$			r^2		
Horiz	FLM	NP	SAM	FLM	NP	SAM	FLM	NP	SAM
H1	0.002	0.001	0.002	0.001	0.001	0.001	0.738	0.807	0.748
H4	0.014	0.013	0.013	0.007	0.008	0.007	0.842	0.853	0.855
H8	0.05	0.055	0.045	0.029	0.034	0.025	0.871	0.864	0.885
H12	0.115	0.127	0.1	0.073	0.088	0.066	0.869	0.859	0.886
H15	0.184	0.212	0.154	0.135	0.17	0.113	0.875	0.86	0.896

Tabla Previsión Fallecidos: Mod. Lineal.

Last=15/06/2021

	Last	H1	H4	H8	H12	H15
España	80220	80239	80220	80220	80220	80220
Andalucía	9921	9925	9925	9925	9921	9921
Aragón	3511	3512	3511	3511	3511	3511
Asturias	1973	1973	1973	1973	1973	1973
Canarias	772	773	774	776	777	777
Cantabria	566	566	566	566	566	566
Castilla.y.León	6854	6856	6854	6854	6854	6854
Castilla.La.Mancha	5961	5963	5961	5961	5961	5961
Cataluña	14535	14537	14535	14535	14535	14535
Ceuta	116	116	116	116	116	116
Comunidad.Valenciana	7375	7376	7375	7375	7375	7375
Extremadura	1787	1787	1787	1787	1787	1787
Galicia	2414	2414	2414	2414	2414	2414
Islas.Baleares	842	842	842	842	842	842
La.Rioja	775	775	775	775	775	775
Madrid	15428	15431	15428	15428	15428	15428
Melilla	97	97	97	97	97	97
Murcia	1604	1604	1604	1604	1604	1604
Navarra	1178	1178	1178	1178	1178	1178
País.Vasco	4511	4512	4511	4511	4511	4511

Cuadro: Previsión fallecidos: Mod. lineal - Horiz. (días).

Tabla Previsión Fallecidos: Mod. No Paramétrico.

Last=15/06/2021

	Last	H1	H4	H8	H12	H15
España	80220	80291	80523	80883	81211	81527
Andalucía	9921	9931	9962	10011	10056	10100
Aragón	3511	3514	3525	3542	3557	3572
Asturias	1973	1975	1980	1989	1996	2004
Canarias	772	773	776	781	785	789
Cantabria	566	566	568	571	573	575
Castilla y León	6854	6860	6879	6910	6937	6964
Castilla-La Mancha	5961	5966	5983	6010	6034	6058
Cataluña	14535	14547	14586	14647	14702	14754
Ceuta	116	116	117	117	118	118
Comunidad Valenciana	7375	7381	7401	7431	7459	7486
Extremadura	1787	1788	1793	1801	1808	1814
Galicia	2414	2416	2423	2434	2445	2454
Islas Baleares	842	843	845	848	852	855
La Rioja	775	776	778	781	784	787
Madrid	15428	15442	15486	15555	15617	15678
Melilla	97	97	97	98	98	98
Murcia	1604	1605	1610	1617	1623	1629
Navarra	1178	1179	1183	1188	1193	1198
País Vasco	4511	4516	4531	4555	4578	4599

Cuadro: Previsión fallecidos: Mod. No Paramétrico - Horiz. (días).

Tabla Previsión Fallecidos: Mod. Aditivo.

Last=15/06/2021

	Last	H1	H4	H8	H12	H15
España	80220	80220	80256	80258	80259	80220
Andalucía	9921	9926	9934	9937	9932	9921
Aragón	3511	3512	3514	3519	3520	3520
Asturias	1973	1973	1974	1974	1975	1973
Canarias	772	773	775	779	781	783
Cantabria	566	566	566	566	566	566
Castilla.y.León	6854	6854	6856	6857	6859	6854
Castilla.La.Mancha	5961	5961	5963	5965	5968	5962
Cataluña	14535	14535	14535	14535	14535	14535
Ceuta	116	116	116	116	116	116
Comunidad.Valenciana	7375	7375	7375	7375	7376	7375
Extremadura	1787	1787	1787	1787	1787	1787
Galicia	2414	2414	2416	2418	2418	2418
Islas.Baleares	842	842	842	842	843	842
La.Rioja	775	775	775	775	775	775
Madrid	15428	15428	15432	15433	15434	15428
Melilla	97	97	97	97	97	97
Murcia	1604	1604	1604	1605	1605	1604
Navarra	1178	1178	1178	1178	1178	1178
País.Vasco	4511	4512	4517	4519	4519	4516

Cuadro: Previsión fallecidos: Mod. Aditivo - Horiz. (días).

Tabla Ratio Incr. Fallecidos: Mod. Lineal.

Last=15/06/2021

	Last	H1	H4	H8	H12	H15
España	0.0002	0.0002	0.0000	0.0000	0.0000	0.0000
Andalucía	0.0004	0.0004	0.0004	0.0004	0.0000	0.0000
Aragón	0.0003	0.0003	0.0000	0.0000	0.0000	0.0000
Asturias	0.0001	0.0002	0.0000	0.0000	0.0000	0.0000
Canarias	0.0009	0.0011	0.0027	0.0053	0.0066	0.0067
Cantabria	0.0001	0.0002	0.0000	0.0000	0.0000	0.0000
Castilla.y.León	0.0002	0.0003	0.0000	0.0000	0.0000	0.0000
Castilla.La.Mancha	0.0002	0.0003	0.0000	0.0000	0.0000	0.0000
Cataluña	0.0000	0.0002	0.0000	0.0000	0.0000	0.0000
Ceuta	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
Comunidad.Valenciana	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000
Extremadura	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000
Galicia	0.0002	0.0002	0.0000	0.0000	0.0000	0.0000
Islas.Baleares	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000
La.Rioja	0.0001	0.0002	0.0000	0.0000	0.0000	0.0000
Madrid	0.0001	0.0002	0.0000	0.0000	0.0000	0.0000
Melilla	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000
Murcia	0.0001	0.0002	0.0000	0.0000	0.0000	0.0000
Navarra	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
País.Vasco	0.0004	0.0003	0.0000	0.0000	0.0000	0.0000

Cuadro: Previsión Ratio Incr. Fallecidos: Mod. lineal - Horiz. (días).

	Last	H1	H4	H8	H12	H15
España	0.0002	0.0009	0.0038	0.0083	0.0124	0.0163
Andalucía	0.0004	0.0010	0.0042	0.0091	0.0136	0.0180
Aragón	0.0003	0.0009	0.0040	0.0087	0.0131	0.0172
Asturias	0.0001	0.0008	0.0036	0.0079	0.0118	0.0155
Canarias	0.0009	0.0013	0.0051	0.0112	0.0169	0.0224
Cantabria	0.0001	0.0009	0.0038	0.0082	0.0123	0.0162
Castilla.y.León	0.0002	0.0009	0.0037	0.0081	0.0121	0.0160
Castilla.La.Mancha	0.0002	0.0009	0.0038	0.0082	0.0123	0.0162
Cataluña	0.0000	0.0008	0.0035	0.0077	0.0115	0.0151
Ceuta	0.0001	0.0012	0.0048	0.0104	0.0156	0.0206
Comunidad.Valenciana	0.0000	0.0008	0.0035	0.0076	0.0114	0.0150
Extremadura	0.0000	0.0008	0.0035	0.0078	0.0116	0.0152
Galicia	0.0002	0.0009	0.0039	0.0085	0.0127	0.0167
Islas.Baleares	0.0000	0.0008	0.0035	0.0077	0.0115	0.0151
La.Rioja	0.0001	0.0009	0.0037	0.0082	0.0122	0.0161
Madrid	0.0001	0.0009	0.0038	0.0082	0.0123	0.0162
Melilla	0.0000	0.0008	0.0034	0.0075	0.0112	0.0147
Murcia	0.0001	0.0008	0.0036	0.0078	0.0117	0.0154
Navarra	0.0001	0.0009	0.0039	0.0084	0.0126	0.0166
País.Vasco	0.0004	0.0011	0.0045	0.0098	0.0148	0.0195

Cuadro: Previsión Ratio Incr. Fallecidos: Mod. No Paramétrico - Horiz. (días).

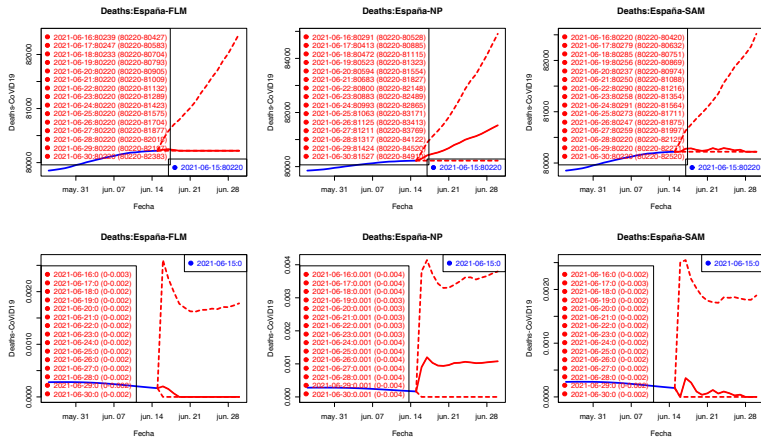
Tabla Ratio Incr. Fallecidos: Mod. Aditivo.

Last=15/06/2021

	Last	H1	H4	H8	H12	H15
España	0.0002	0.0000	0.0004	0.0005	0.0005	0.0000
Andalucía	0.0004	0.0005	0.0013	0.0016	0.0011	0.0000
Aragón	0.0003	0.0002	0.0009	0.0022	0.0026	0.0025
Asturias	0.0001	0.0000	0.0007	0.0007	0.0010	0.0000
Canarias	0.0009	0.0015	0.0044	0.0088	0.0122	0.0148
Cantabria	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
Castilla.y.León	0.0002	0.0000	0.0003	0.0004	0.0007	0.0000
Castilla.La.Mancha	0.0002	0.0000	0.0004	0.0006	0.0011	0.0001
Cataluña	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Ceuta	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
Comunidad.Valenciana	0.0000	0.0000	0.0000	0.0000	0.0002	0.0000
Extremadura	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Galicia	0.0002	0.0000	0.0007	0.0015	0.0018	0.0018
Islas.Baleares	0.0000	0.0000	0.0002	0.0002	0.0006	0.0000
La.Rioja	0.0001	0.0002	0.0002	0.0000	0.0000	0.0000
Madrid	0.0001	0.0000	0.0003	0.0004	0.0004	0.0000
Melilla	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Murcia	0.0001	0.0000	0.0002	0.0004	0.0008	0.0001
Navarra	0.0001	0.0000	0.0002	0.0000	0.0000	0.0000
País.Vasco	0.0004	0.0003	0.0012	0.0019	0.0017	0.0012

Cuadro: Previsión Ratio Incr. Fallecidos: Mod. Aditivo - Horizonte 1 – 5 días.

Fallecidos: España

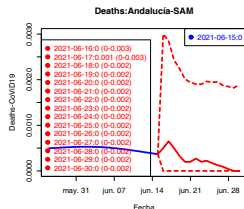
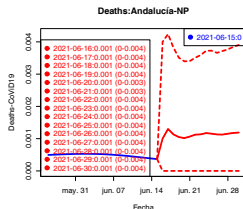
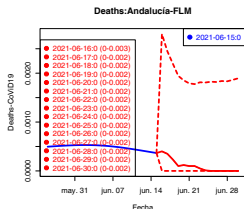
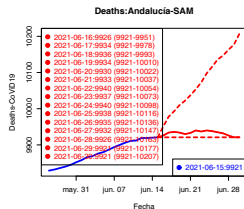
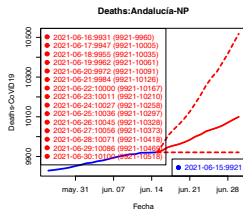
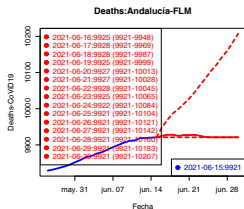


Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

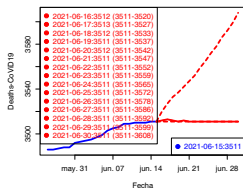
Fallecidos: Andalucía



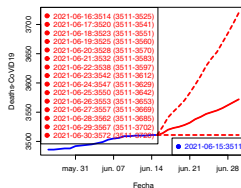
Los valores del Ratio de incremento de H2–H15 están rescalados a H1 para su comparación gráfica.

Fallecidos: Aragón

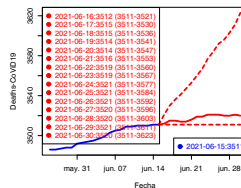
Deaths:Aragón-FLM



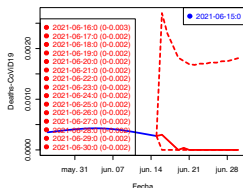
Deaths:Aragón-NP



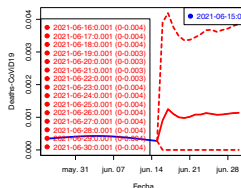
Deaths:Aragón-SAM



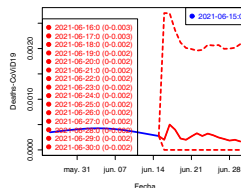
Deaths:Aragón-FLM



Deaths:Aragón-NP



Deaths:Aragón-SAM

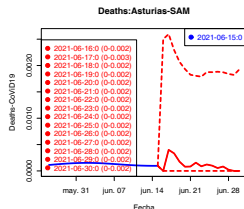
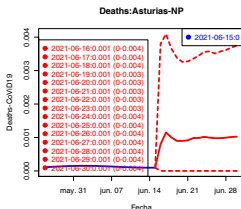
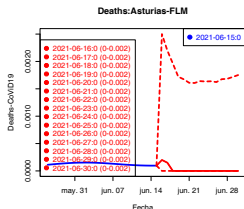
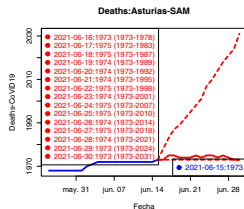
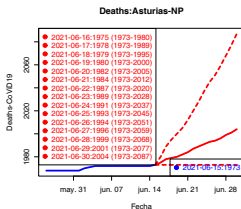
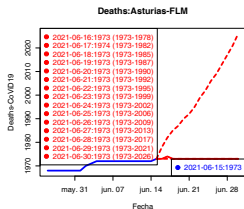


Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Fallecidos: Asturias

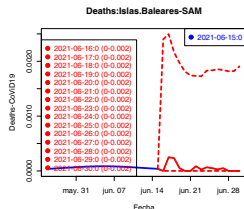
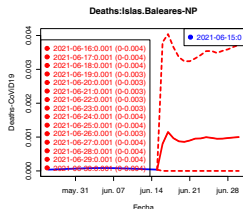
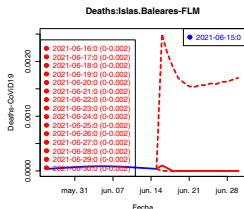
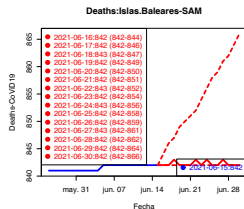
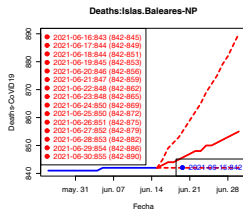
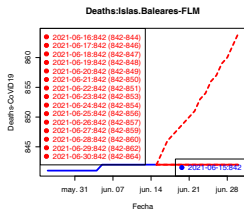


Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

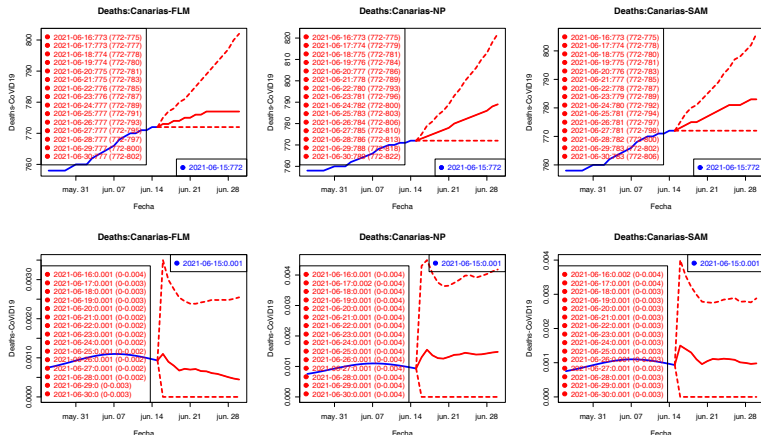
◀ Fallecidos

Fallecidos: Islas Baleares



Los valores del Ratio de incremento de H2–H15 están rescalados a H1 para su comparación gráfica.

Fallecidos: Canarias

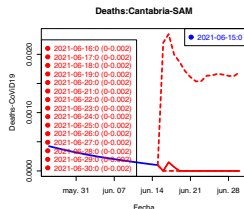
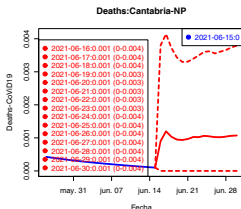
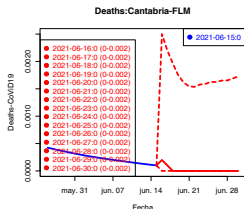
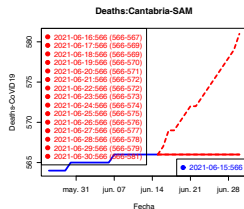
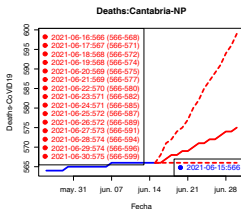
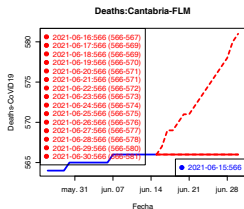


Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

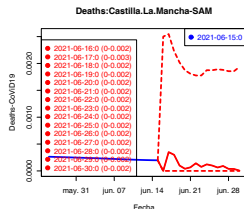
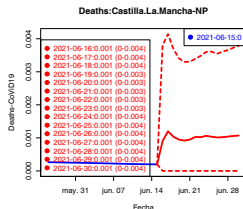
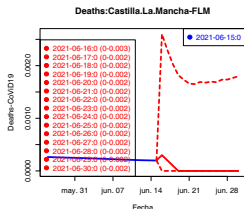
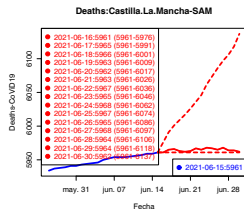
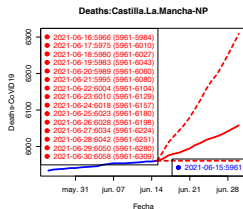
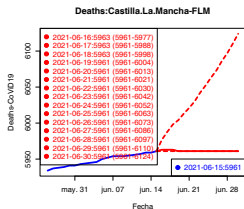
◀ Fallecidos

Fallecidos: Cantabria



Los valores del Ratio de incremento de H2–H15 están rescalados a H1 para su comparación gráfica.

Fallecidos: Castilla-La Mancha

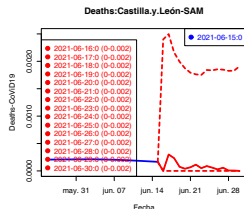
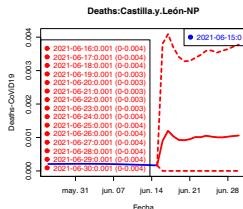
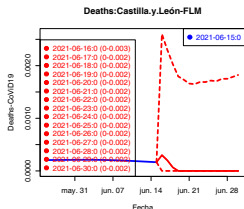
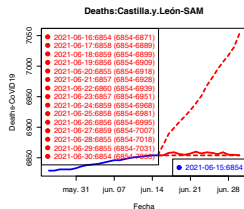
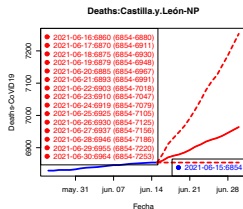
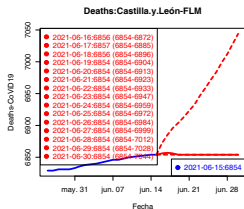


Los valores del Ratio de incremento de H2–H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Fallecidos: Castilla y León

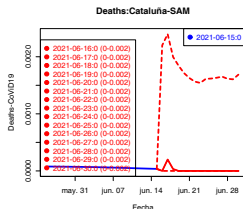
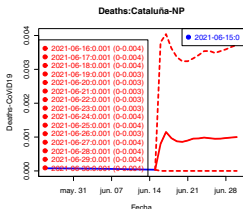
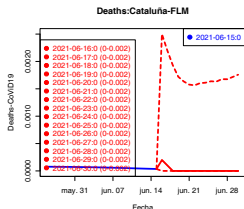
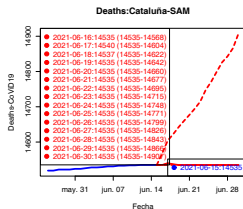
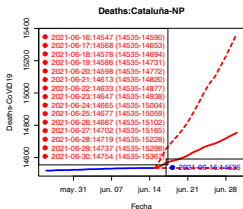
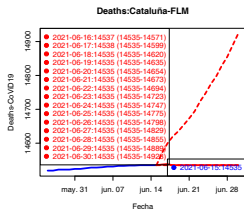


Los valores del Ratio de incremento de H2–H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

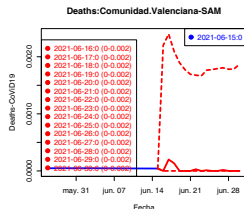
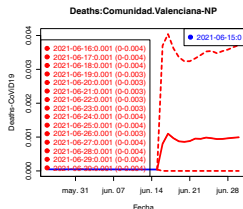
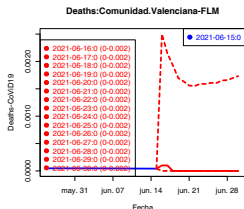
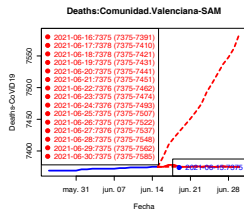
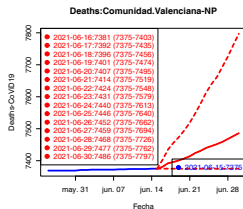
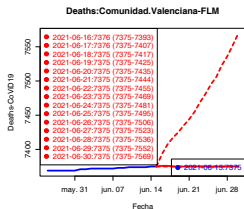
◀ Fallecidos

Fallecidos: Cataluña



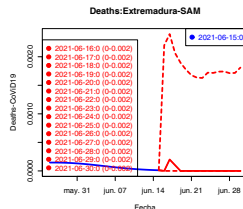
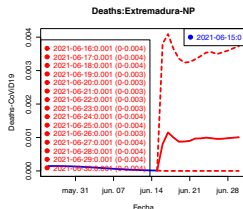
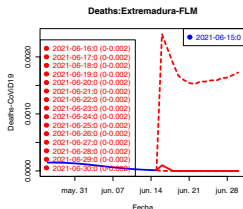
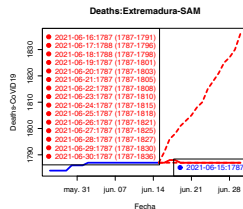
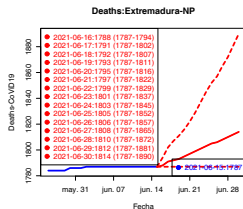
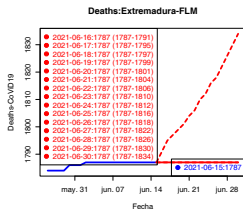
Los valores del Ratio de incremento de H2–H15 están rescalados a H1 para su comparación gráfica.

Fallecidos: C. Valenciana



Los valores del Ratio de incremento de H2–H15 están rescalados a H1 para su comparación gráfica.

Fallecidos: Extremadura

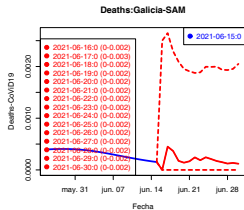
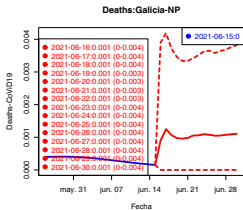
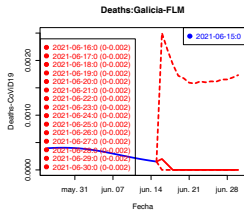
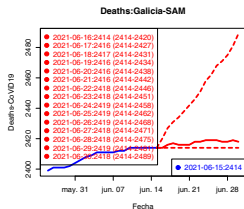
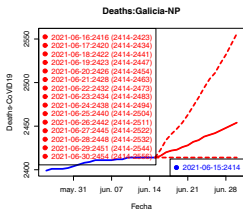
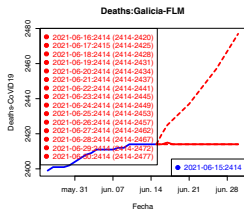


Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

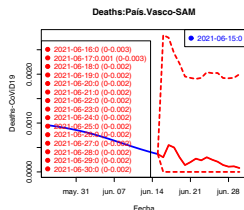
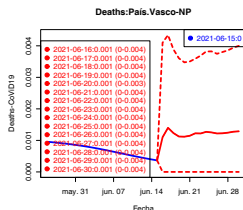
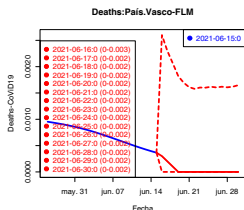
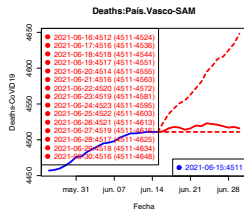
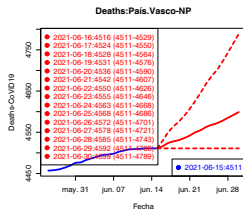
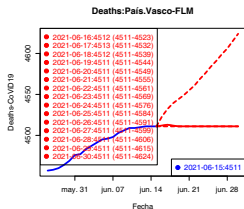
◀ Fallecidos

Fallecidos: Galicia



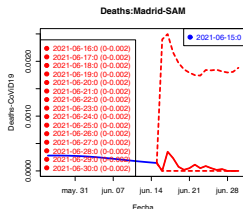
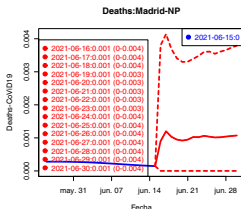
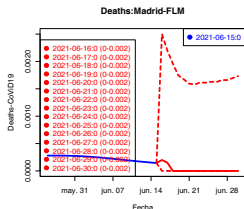
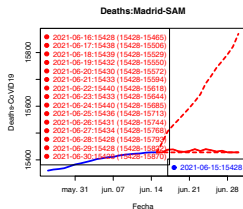
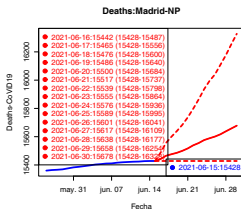
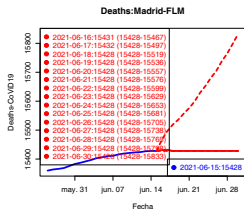
Los valores del Ratio de incremento de H2–H15 están rescalados a H1 para su comparación gráfica.

Fallecidos: País Vasco



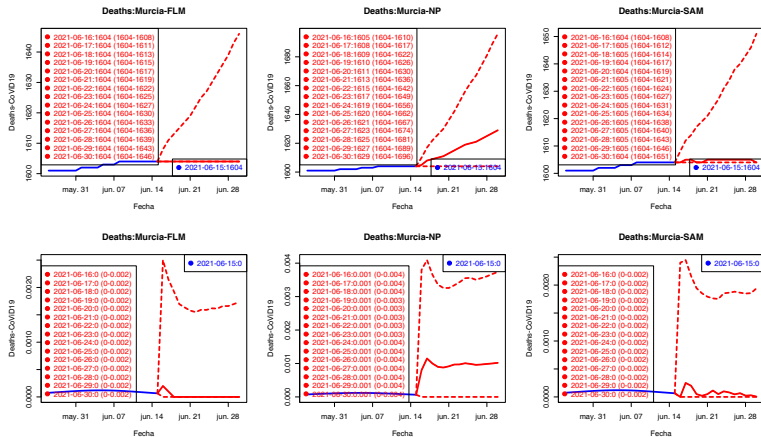
Los valores del Ratio de incremento de H2–H15 están rescalados a H1 para su comparación gráfica.

Fallecidos: Madrid



Los valores del Ratio de incremento de H2–H15 están rescalados a H1 para su comparación gráfica.

Fallecidos: Murcia

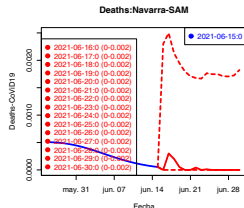
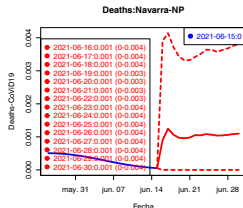
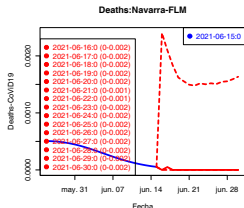
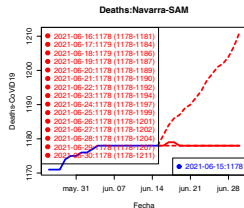
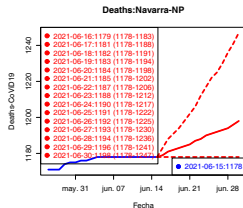
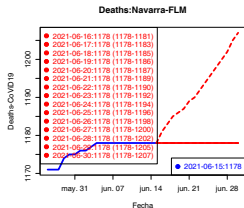


Los valores del Ratio de incremento de H2—H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

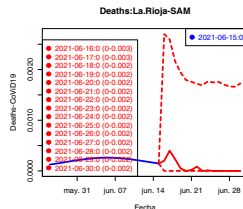
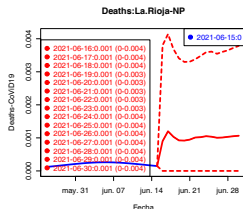
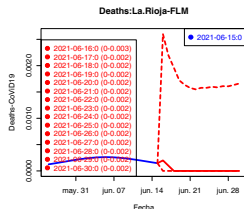
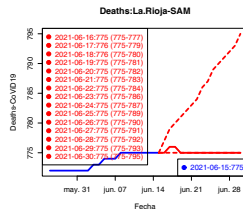
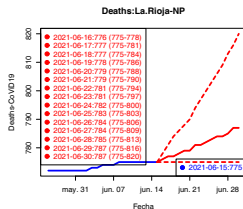
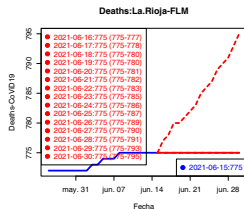
◀ Fallecidos

Fallecidos: Navarra



Los valores del Ratio de incremento de H2–H15 están rescalados a H1 para su comparación gráfica.

Fallecidos: La Rioja



Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

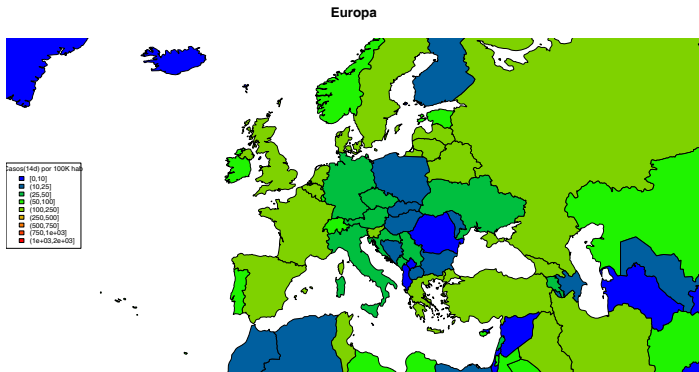
◀ Confirmados

◀ Fallecidos

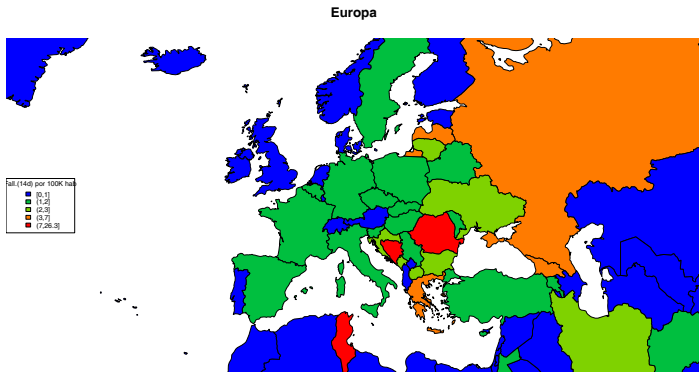
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 - Predicciones
- 2 Fallecidos
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- 3 Panorama internacional

Europa: Incidencia Acumulada (14d) por 100K hab.

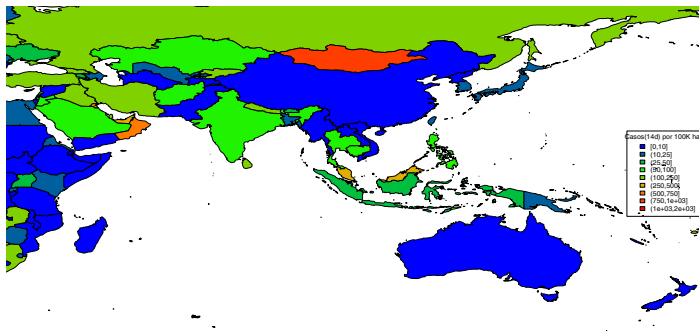


Europa: Fallecidos (14d) por 100K hab.



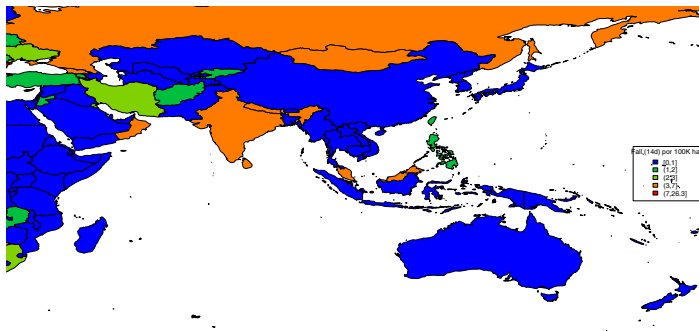
Asia y Oceanía: Incidencia acumulada (14d) por 100K hab.

Asia y Oceanía



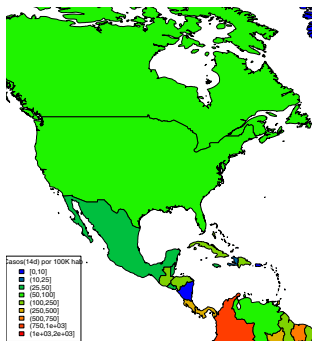
Asia y Oceanía: Fallecidos (14d) por 100K hab.

Asia y Oceanía

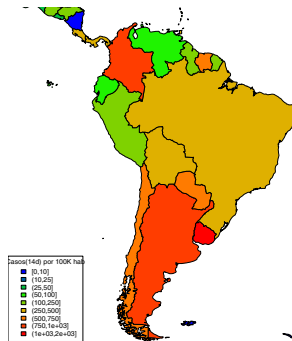


América: Incidencia acumulada (14d) por 100K hab.

América del Norte



América del sur

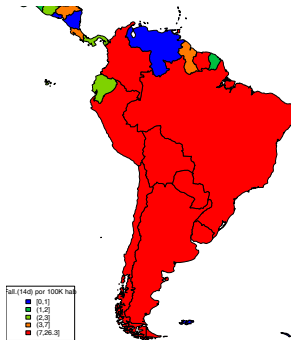


América: Fallecidos (14d) por 100K hab.

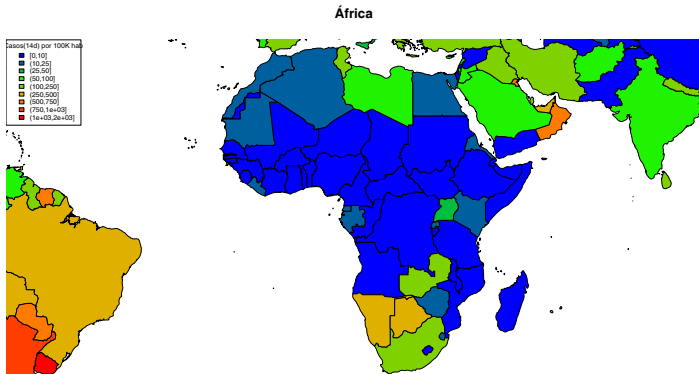
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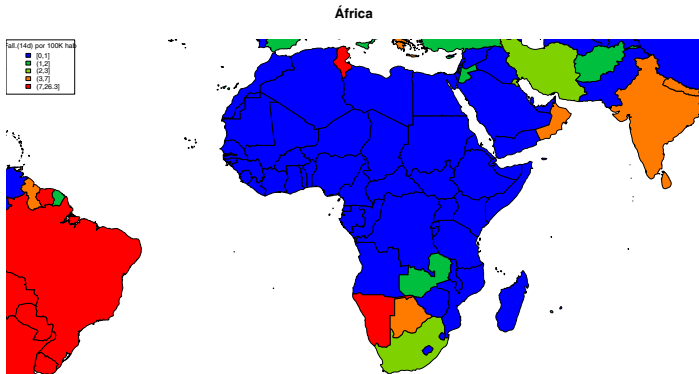
América del sur



África: Incidencia acumulada (14d) por 100K hab.



África: Fallecidos (14d) por 100K hab.



Breve descripción del Modelo de predicción

Objetivo: Predecir ratio de incremento de casos confirmados a 1–5 días: $r^{(k)}(t) = \frac{x_{t+k} - x_t}{x_t + 1}$

Información usada: Pasado de esta variable suavizada (retardo 1) durante los últimos 21 días: $R^{(1)} = \{r^{(1)}(-21), \dots, r^{(1)}(0)\}$.

Datos para alimentar el modelo: https://github.com/CSSEGISandData/COVID-19/tree/master/csse_covid_19_data/csse_covid_19_time_series/. Algunas series de tiempo (como el Diamond Princess) son filtrados por inconsistencia, presunta falta de veracidad o por valores anormalmente bajos. En la predicción final se reconstruye el número de casos esperado.

Se construyen tres modelos funcionales de la regresión general: $r^{(k)}(0) = f(R^{(1)}) + \epsilon$ donde la diferencia radica en la forma de la función f

- Lineal: $f(R^{(1)}) = \int_{-21}^0 R^{(1)}(t)\beta(t)dt$
- NP: f es una estimación no paramétrica tipo núcleo.
- SAM: f es una combinación aditiva de funciones suaves de las componentes principales funcionales.

Para el objetivo de predecir el ratio de incremento de fallecidos, se usa además del pasado de la propia variable, el ratio de incremento pasado de casos confirmados.