

Predicciones sobre CoViD-19

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DEPARTAMENTO DE ESTATÍSTICA,
ANÁLISE MATEMÁTICA E OPTIMIZACIÓN



- Predicciones

- Predicciones Fallecidos

3 Panorama internacional

Datos

Aplicación Shiny disponible en

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

Último dato Confirmados CCAA: 28/02/2021

Fuente: https://cnecovid.isciii.es/covid19/resources/casos_tecnica_ccaa.csv

Predicciones:

▶ España

► Andalucía

► Aragón

► Asturias

▶ I. Balears

▶ Canarias

▶ Cantabria

► **Cataluña**

► **Castilla-La Mancha**

► **Castilla y León**

► C. Valenciana

► Extremadura

▶ País Vasco

► Galicia

► Madrid

► Murcia

▶ Navarra

► La Rioja

► Mod Lineal

▶ Mod NF

► **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	0.008	0.005	0.007	0.006	0.003	0.006	0.685	0.829	0.697
H2	0.032	0.011	0.03	0.017	0.009	0.018	0.69	0.901	0.709
H3	0.047	0.021	0.045	0.035	0.018	0	0.777	0.91	0.789
H4	0.068	0.034	0.064	0.058	0.03	0.056	0.815	0.917	0.824
H5	0.108	0.06	0.103	0.087	0.044	0.086	0.817	0.908	0.825

Último dato fichero: 28/02/2021.

Tabla Ratio Incr. Confirmados: Mod. Lineal.

Last=28/02/2021

	Last	H1	H2	H3	H4	H5
España	0.0010	0.0015	0.0029	0.0040	0.0051	0.0059
Andalucía	0.0013	0.0018	0.0034	0.0048	0.0062	0.0072
Aragón	0.0011	0.0016	0.0031	0.0043	0.0055	0.0064
Asturias	0.0017	0.0020	0.0039	0.0054	0.0068	0.0075
Canarias	0.0028	0.0029	0.0057	0.0083	0.0110	0.0132
Cantabria	0.0012	0.0015	0.0028	0.0039	0.0051	0.0058
Castilla.y.León	0.0008	0.0014	0.0026	0.0035	0.0044	0.0051
Castilla.La.Mancha	0.0004	0.0010	0.0019	0.0025	0.0032	0.0035
Cataluña	0.0011	0.0016	0.0031	0.0042	0.0054	0.0061
Ceuta	0.0026	0.0033	0.0065	0.0095	0.0124	0.0149
Comunidad.Valenciana	0.0005	0.0011	0.0019	0.0025	0.0031	0.0035
Extremadura	0.0004	0.0010	0.0017	0.0023	0.0030	0.0035
Galicia	0.0014	0.0018	0.0032	0.0045	0.0058	0.0068
Islas.Baleares	0.0006	0.0012	0.0021	0.0029	0.0037	0.0042
La.Rioja	0.0003	0.0009	0.0016	0.0021	0.0028	0.0033
Madrid	0.0012	0.0017	0.0033	0.0046	0.0058	0.0066
Melilla	0.0018	0.0018	0.0033	0.0047	0.0061	0.0070
Murcia	0.0005	0.0011	0.0019	0.0026	0.0034	0.0039
Navarra	0.0008	0.0014	0.0027	0.0037	0.0048	0.0057
País.Vasco	0.0014	0.0018	0.0035	0.0049	0.0064	0.0074

Cuadro: Previsión Ratio Incr. Confirmados: Mod. lineal - Horizonte 1 – 5 días.

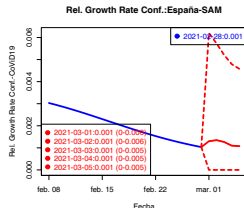
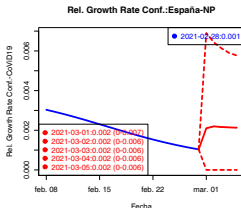
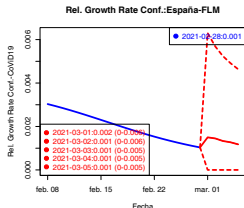
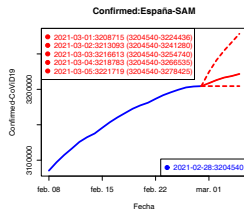
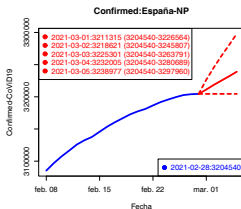
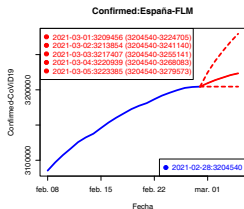
Tabla Ratio Incr. Confirmados: Mod. No Paramétrico.

Last=28/02/2021

	Last	H1	H2	H3	H4	H5
España	0.0010	0.0021	0.0044	0.0065	0.0086	0.0107
Andalucía	0.0013	0.0025	0.0052	0.0077	0.0101	0.0127
Aragón	0.0011	0.0020	0.0042	0.0063	0.0083	0.0104
Asturias	0.0017	0.0032	0.0063	0.0095	0.0125	0.0156
Canarias	0.0028	0.0037	0.0073	0.0110	0.0146	0.0182
Cantabria	0.0012	0.0023	0.0048	0.0072	0.0095	0.0118
Castilla y León	0.0008	0.0018	0.0037	0.0055	0.0073	0.0092
Castilla-La Mancha	0.0004	0.0014	0.0028	0.0042	0.0057	0.0072
Cataluña	0.0011	0.0022	0.0045	0.0066	0.0088	0.0110
Ceuta	0.0026	0.0034	0.0068	0.0102	0.0135	0.0168
Comunidad Valenciana	0.0005	0.0015	0.0032	0.0047	0.0063	0.0080
Extremadura	0.0004	0.0012	0.0025	0.0038	0.0051	0.0065
Galicia	0.0014	0.0027	0.0055	0.0082	0.0108	0.0135
Islas Baleares	0.0006	0.0015	0.0032	0.0047	0.0063	0.0080
La Rioja	0.0003	0.0012	0.0025	0.0037	0.0049	0.0063
Madrid	0.0012	0.0024	0.0050	0.0075	0.0098	0.0123
Melilla	0.0018	0.0032	0.0063	0.0095	0.0126	0.0157
Murcia	0.0005	0.0014	0.0029	0.0044	0.0058	0.0074
Navarra	0.0008	0.0015	0.0031	0.0046	0.0062	0.0078
País Vasco	0.0014	0.0026	0.0053	0.0078	0.0103	0.0129

Cuadro: Previsión Ratio Incr. Confirmados: Mod. No Paramétrico - Horizonte 1 – 5 días.

Confirmados: España

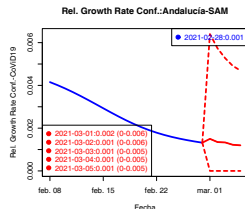
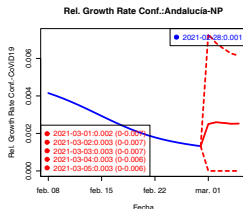
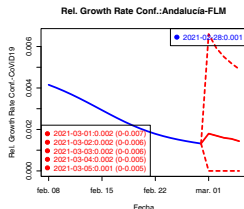
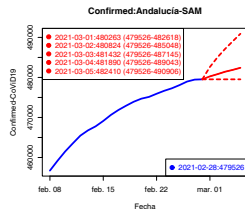
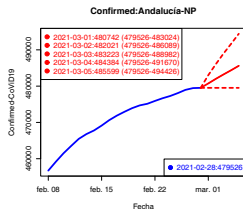
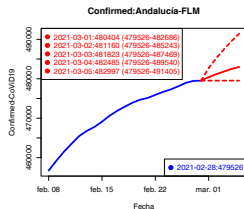


Los valores del Ratio de incremento de H2-H5 están rescalados a H1 para su comparación gráfica.

← Confirmados

← Fallecidos

Confirmados: Andalucía

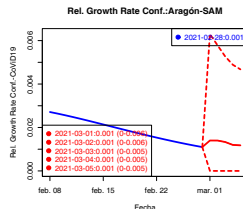
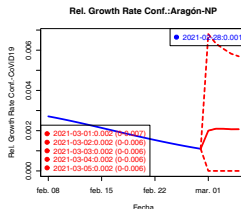
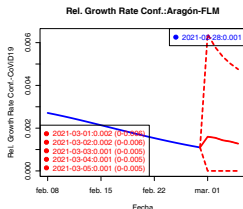
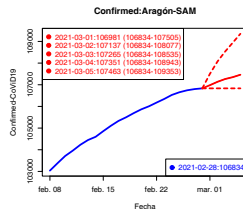
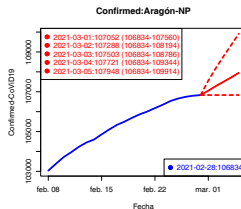
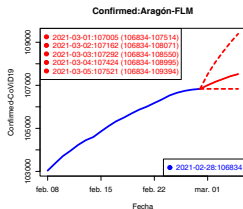


Los valores del Ratio de incremento de H2-H5 están rescalados a H1 para su comparación gráfica.

← Confirmados

← Fallecidos

Confirmados: Aragón

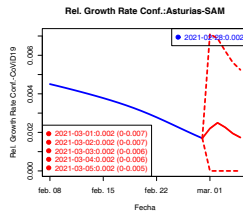
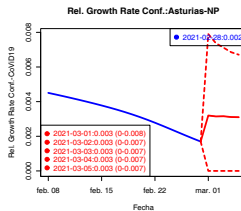
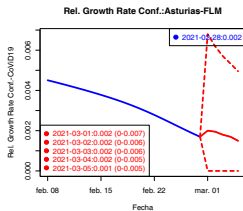
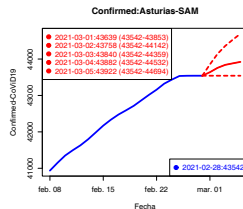
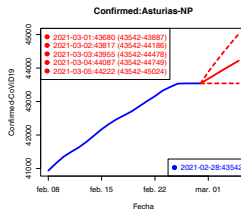
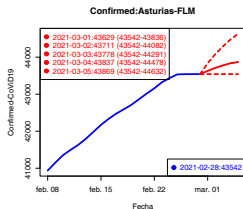


Los valores del Ratio de incremento de H2-H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Confirmados: Asturias

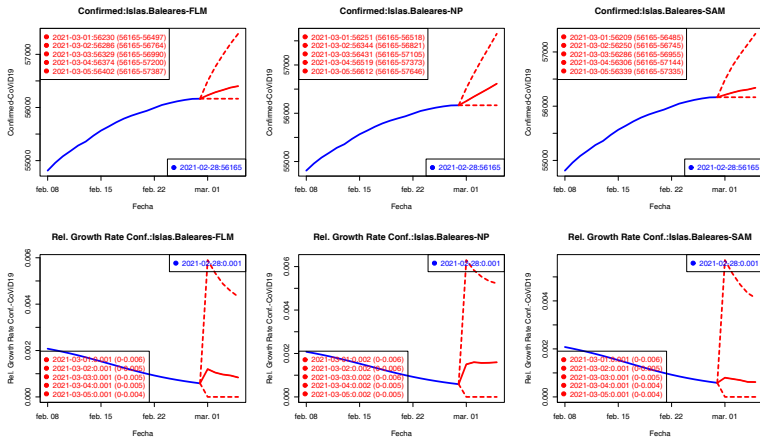


Los valores del Ratio de incremento de H2-H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Confirmados: Islas Baleares

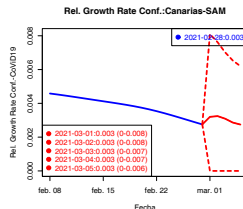
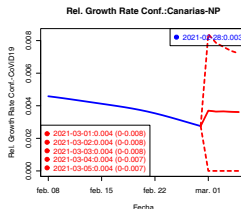
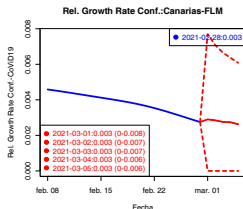
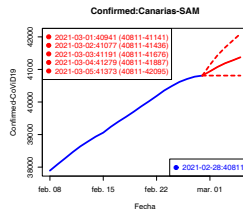
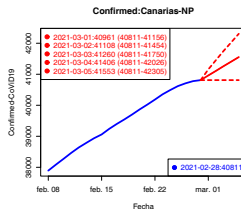
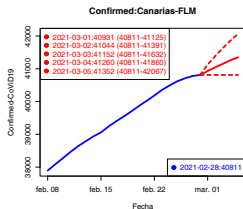


Los valores del Ratio de incremento de H2–H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Confirmados: Canarias



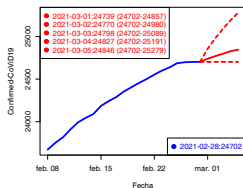
Los valores del Ratio de incremento de H2-H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

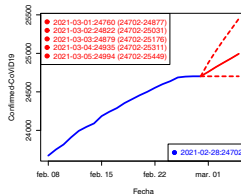
◀ Fallecidos

Confirmados: Cantabria

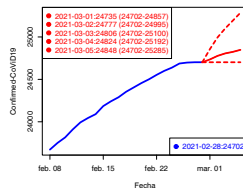
Confirmed:Cantabria-FLM



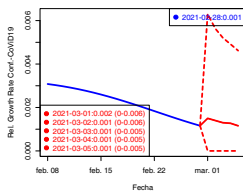
Confirmed:Cantabria-NP



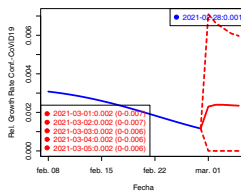
Confirmed:Cantabria-SAM



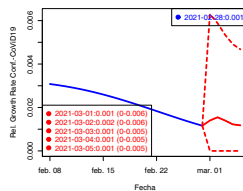
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Rel. Growth Rate Conf.:Cantabria-NP



Rel. Growth Rate Conf.:Cantabria-SAM

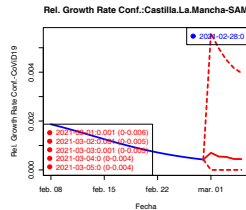
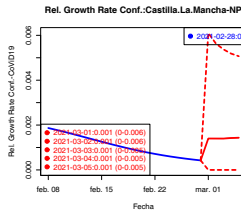
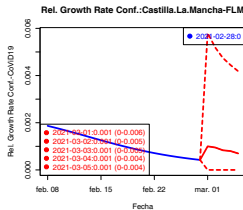
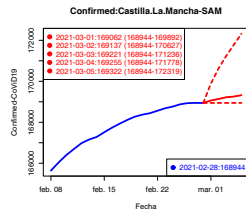
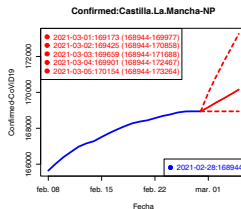
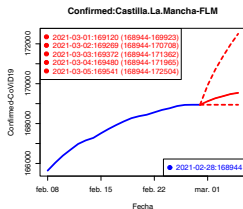


Los valores del Ratio de incremento de H2-H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Confirmados: Castilla-La Mancha

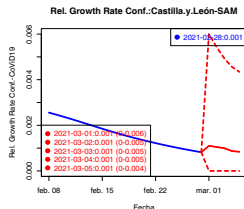
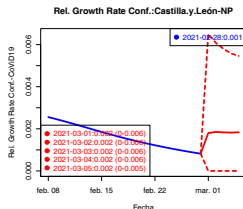
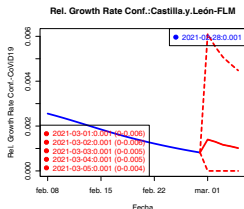
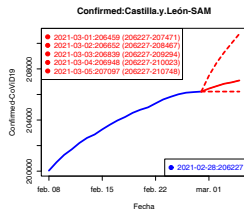
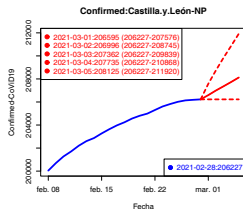
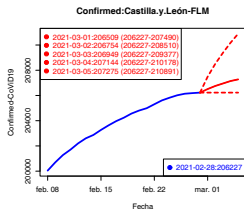


Los valores del Ratio de incremento de H2-H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Confirmados: Castilla y León

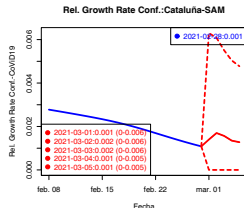
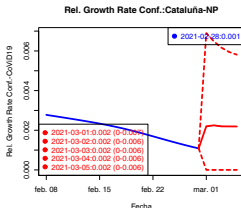
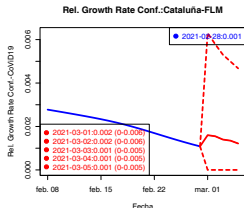
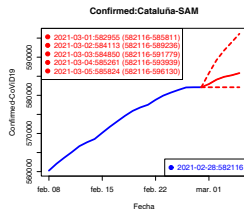
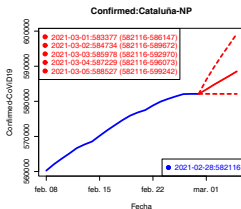
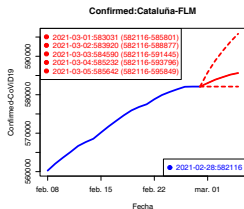


Los valores del Ratio de incremento de H2–H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Confirmados: Cataluña



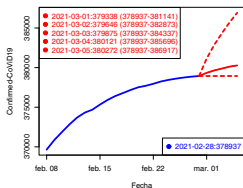
Los valores del Ratio de incremento de H2-H5 están rescalados a H1 para su comparación gráfica.

← Confirmados

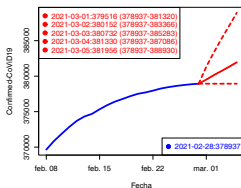
← Fallecidos

Confirmados: C. Valenciana

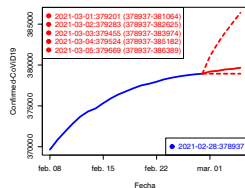
Confirmed:Comunidad.Valenciana-FLM



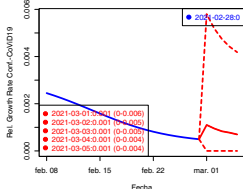
Confirmed:Comunidad.Valenciana-NP



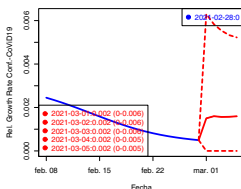
Confirmed:Comunidad.Valenciana-SAM



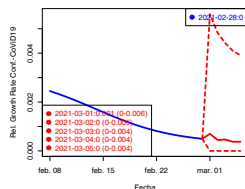
Rel. Growth Rate Conf.:Comunidad.Valenciana-FLM



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



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

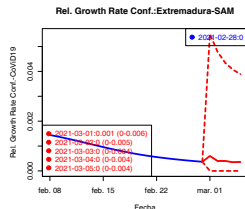
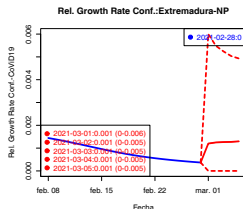
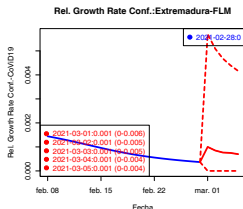
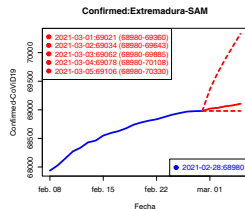
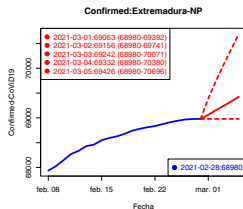
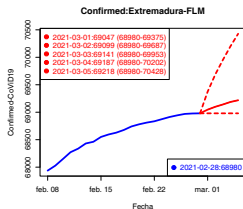


Los valores del Ratio de incremento de H2-H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Confirmados: Extremadura



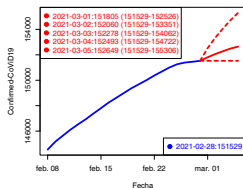
Los valores del Ratio de incremento de H2-H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

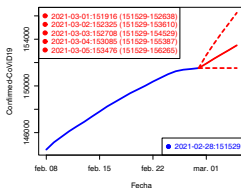
◀ Fallecidos

Confirmados: País Vasco

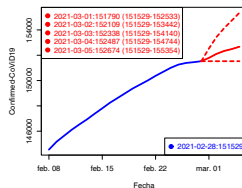
Confirmed:País.Vasco-FLM



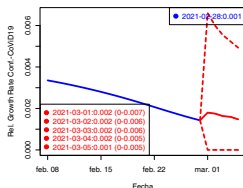
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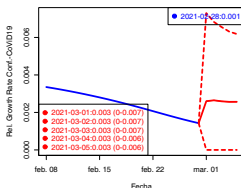
Confirmed:País.Vasco-SAM



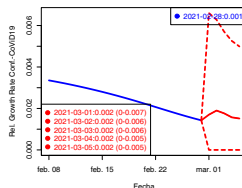
Rel. Growth Rate Conf.:País.Vasco-FLM



Rel. Growth Rate Conf.:País.Vasco-NP



Rel. Growth Rate Conf.:País.Vasco-SAM



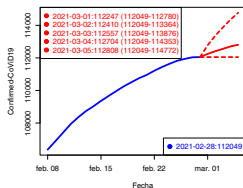
Los valores del Ratio de incremento de H2-H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

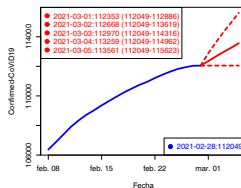
◀ Fallecidos

Confirmados: Galicia

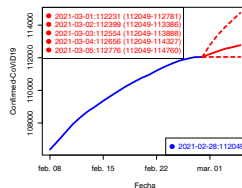
Confirmed:Galicia-FLM



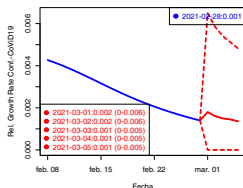
Confirmed:Galicia-NP



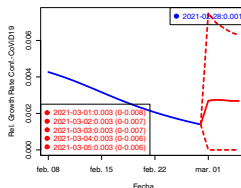
Confirmed:Galicia-SAM



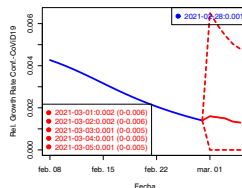
Rel. Growth Rate Conf.:Galicia-FLM



Rel. Growth Rate Conf.:Galicia-NP



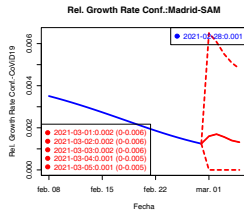
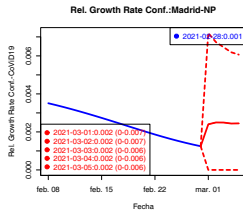
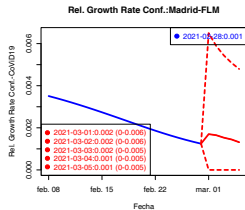
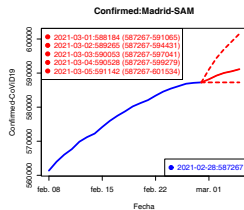
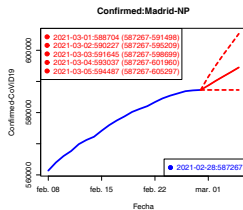
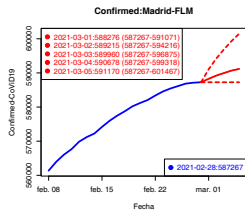
Rel. Growth Rate Conf.:Galicia-SAM



Los valores del Ratio de incremento de H2–H5 están rescalados a H1 para su comparación gráfica.

[◀ Confirmados](#)
[◀ Fallecidos](#)

Confirmados: Madrid

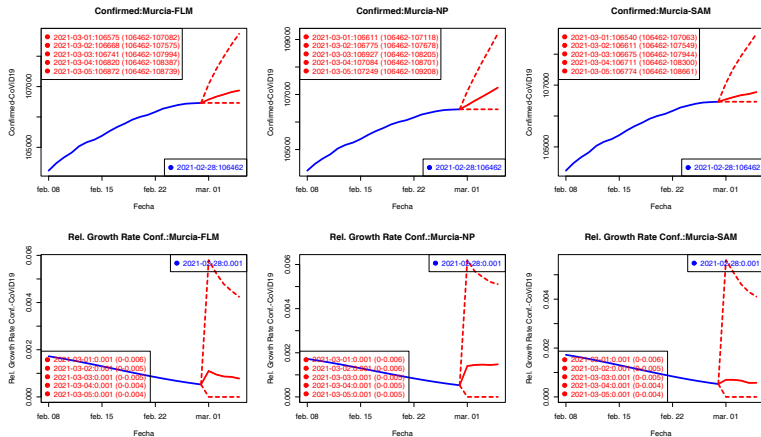


Los valores del Ratio de incremento de H2-H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Confirmados: Murcia

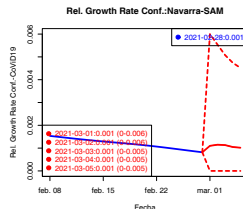
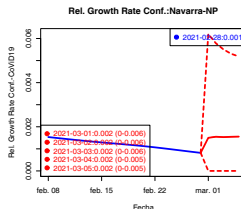
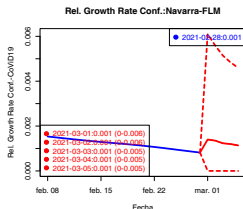
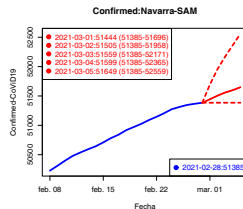
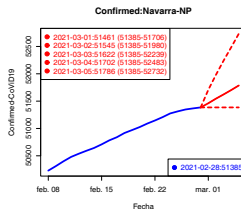
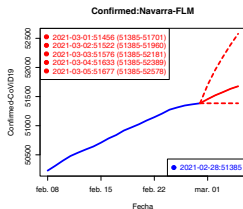


Los valores del Ratio de incremento de H2–H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Confirmados: Navarra

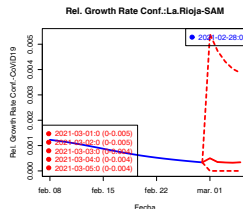
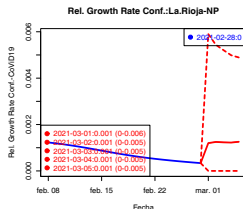
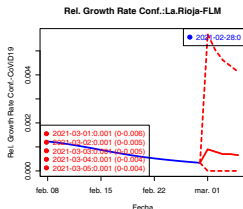
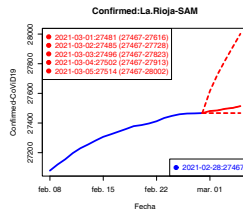
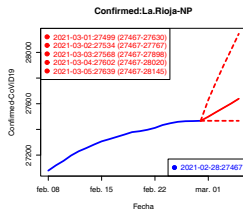
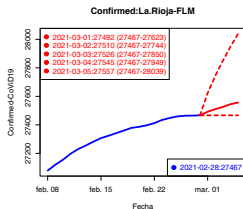


Los valores del Ratio de incremento de H2-H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Confirmados: La Rioja



Los valores del Ratio de incremento de H2–H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Table of Contents

- 1 Casos Confirmados
 - Predicciones
- 2 Fallecidos
 - Predicciones Fallecidos
- 3 Panorama internacional

Modelos para fallecidos por CoViD-19

Último dato: 01/03/2021 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	0.003	0.003	0.003	0.002	0.002	0.002	0.662	0.635	0.682
H2	0.01	0.011	0.01	0.005	0.006	0.004	0.713	0.678	0.73
H3	0.031	0.034	0.03	0.009	0.013	0.009	0.649	0.619	0.658
H4	0.034	0.04	0.033	0.014	0.02	0.012	0.749	0.711	0.757
H5	0.045	0.054	0.044	0.019	0.031	0.015	0.786	0.744	0.793

Tabla Previsión Fallecidos: Mod. Lineal.

Last=01/03/2021

	Last	H1	H2	H3	H4	H5
España	69144	69231	69304	69387	69412	69404
Andalucía	8308	8326	8342	8355	8360	8358
Aragón	3242	3246	3250	3256	3258	3260
Asturias	1770	1776	1781	1787	1791	1794
Canarias	586	588	590	592	593	594
Cantabria	510	511	511	512	512	513
Castilla y León	6294	6302	6309	6316	6318	6316
Castilla-La Mancha	5586	5590	5593	5597	5597	5595
Cataluña	10552	10558	10562	10571	10570	10568
Ceuta	82	82	83	83	84	84
Comunidad Valenciana	6625	6637	6648	6655	6658	6654
Extremadura	1701	1704	1706	1708	1709	1708
Galicia	2223	2231	2238	2244	2248	2252
Islas Baleares	725	725	725	726	726	726
La Rioja	725	725	726	726	726	725
Madrid	13908	13918	13924	13938	13939	13935
Melilla	0	0	0	0	0	0
Murcia	1482	1485	1488	1491	1492	1492
Navarra	1094	1095	1095	1096	1096	1096
País Vasco	3731	3733	3733	3735	3735	3734

Cuadro: Previsión fallecidos: Mod. lineal - Horizonte 1 – 5 días.

Tabla Previsión Fallecidos: Mod. No Paramétrico.

Last=01/03/2021

	Last	H1	H2	H3	H4	H5
España	69144	69352	69554	69795	70002	70227
Andalucía	8308	8342	8376	8415	8448	8482
Aragón	3242	3252	3261	3272	3282	3292
Asturias	1770	1777	1783	1791	1798	1805
Canarias	586	588	590	593	595	597
Cantabria	510	511	513	514	516	517
Castilla.y.León	6294	6312	6329	6349	6367	6386
Castilla.La.Mancha	5586	5601	5616	5633	5648	5665
Cataluña	10552	10575	10596	10624	10647	10675
Ceuta	82	82	83	83	83	84
Comunidad.Valenciana	6625	6652	6679	6709	6735	6762
Extremadura	1701	1706	1711	1717	1722	1728
Galicia	2223	2233	2243	2254	2264	2274
Islas.Baleares	725	727	729	732	734	736
La.Rioja	725	727	729	732	734	736
Madrid	13908	13944	13978	14021	14056	14098
Melilla	0	0	0	0	0	0
Murcia	1482	1489	1495	1503	1509	1516
Navarra	1094	1097	1099	1102	1105	1108
País.Vasco	3731	3741	3751	3762	3772	3784

Cuadro: Previsión fallecidos: Mod. No Paramétrico - Horizonte 1 – 5 días.

Tabla Previsión Fallecidos: Mod. Aditivo.

Last=01/03/2021

	Last	H1	H2	H3	H4	H5
España	69144	69213	69267	69422	69456	69468
Andalucía	8308	8327	8337	8361	8372	8370
Aragón	3242	3246	3250	3260	3264	3266
Asturias	1770	1776	1781	1788	1791	1794
Canarias	586	588	590	593	595	595
Cantabria	510	511	511	512	512	513
Castilla y León	6294	6301	6306	6316	6317	6322
Castilla-La Mancha	5586	5589	5591	5599	5601	5605
Cataluña	10552	10557	10557	10575	10569	10569
Ceuta	82	82	83	84	84	84
Comunidad Valenciana	6625	6640	6649	6659	6672	6675
Extremadura	1701	1703	1705	1706	1707	1710
Galicia	2223	2231	2237	2243	2247	2252
Islas Baleares	725	725	725	727	728	728
La Rioja	725	725	726	726	727	727
Madrid	13908	13915	13917	13955	13954	13944
Melilla	0	0	0	0	0	0
Murcia	1482	1486	1489	1492	1496	1498
Navarra	1094	1095	1095	1096	1096	1098
País Vasco	3731	3732	3731	3739	3739	3736

Cuadro: Previsión fallecidos: Mod. Aditivo - Horizonte 1 – 5 días.

Tabla Ratio Incr. Fallecidos: Mod. Lineal.

Last=01/03/2021

	Last	H1	H2	H3	H4	H5
España	0.0013	0.0013	0.0023	0.0035	0.0039	0.0038
Andalucía	0.0022	0.0021	0.0041	0.0057	0.0063	0.0060
Aragón	0.0015	0.0013	0.0025	0.0043	0.0050	0.0055
Asturias	0.0031	0.0032	0.0064	0.0095	0.0116	0.0134
Canarias	0.0030	0.0030	0.0061	0.0100	0.0122	0.0139
Cantabria	0.0013	0.0013	0.0024	0.0038	0.0045	0.0049
Castilla.y.León	0.0012	0.0013	0.0024	0.0035	0.0037	0.0035
Castilla.La.Mancha	0.0009	0.0007	0.0012	0.0019	0.0019	0.0015
Cataluña	0.0004	0.0006	0.0010	0.0018	0.0017	0.0015
Ceuta	0.0047	0.0047	0.0102	0.0176	0.0215	0.0249
Comunidad.Valenciana	0.0021	0.0018	0.0035	0.0046	0.0049	0.0044
Extremadura	0.0015	0.0016	0.0032	0.0040	0.0044	0.0043
Galicia	0.0036	0.0035	0.0069	0.0094	0.0114	0.0130
Islas.Baleares	0.0010	0.0004	0.0005	0.0015	0.0015	0.0013
La.Rioja	0.0009	0.0006	0.0009	0.0014	0.0012	0.0006
Madrid	0.0008	0.0007	0.0011	0.0022	0.0022	0.0019
Melilla	0.0000	0.0005	0.0008	0.0015	0.0014	0.0011
Murcia	0.0026	0.0022	0.0043	0.0058	0.0066	0.0068
Navarra	0.0006	0.0007	0.0012	0.0020	0.0021	0.0020
País.Vasco	0.0007	0.0005	0.0005	0.0011	0.0011	0.0008

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

Tabla Ratio Incr. Fallecidos: Mod. No Paramétrico.

Last=01/03/2021

	Last	H1	H2	H3	H4	H5
España	0.0013	0.0030	0.0059	0.0094	0.0124	0.0157
Andalucía	0.0022	0.0041	0.0082	0.0128	0.0169	0.0210
Aragón	0.0015	0.0030	0.0058	0.0093	0.0122	0.0154
Asturias	0.0031	0.0038	0.0076	0.0119	0.0157	0.0196
Canarias	0.0030	0.0038	0.0076	0.0119	0.0156	0.0195
Cantabria	0.0013	0.0026	0.0052	0.0083	0.0109	0.0139
Castilla.y.León	0.0012	0.0028	0.0055	0.0088	0.0116	0.0147
Castilla.La.Mancha	0.0009	0.0027	0.0053	0.0085	0.0111	0.0142
Cataluña	0.0004	0.0022	0.0042	0.0068	0.0090	0.0116
Ceuta	0.0047	0.0043	0.0086	0.0135	0.0178	0.0221
Comunidad.Valenciana	0.0021	0.0041	0.0081	0.0127	0.0167	0.0207
Extremadura	0.0015	0.0030	0.0060	0.0095	0.0125	0.0158
Galicia	0.0036	0.0046	0.0091	0.0141	0.0185	0.0230
Islas.Baleares	0.0010	0.0030	0.0060	0.0095	0.0125	0.0158
La.Rioja	0.0009	0.0030	0.0058	0.0092	0.0122	0.0154
Madrid	0.0008	0.0026	0.0050	0.0081	0.0107	0.0136
Melilla	0.0000	0.0018	0.0035	0.0059	0.0077	0.0101
Murcia	0.0026	0.0045	0.0090	0.0139	0.0182	0.0226
Navarra	0.0006	0.0023	0.0045	0.0073	0.0096	0.0124
País.Vasco	0.0007	0.0027	0.0053	0.0084	0.0111	0.0141

Cuadro: Previsión Ratio Incr. Fallecidos: Mod. No Paramétrico - Horizonte 1 – 5 días.

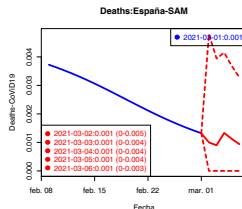
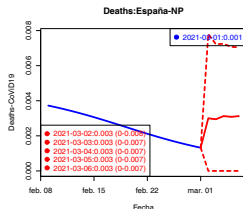
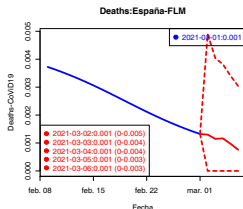
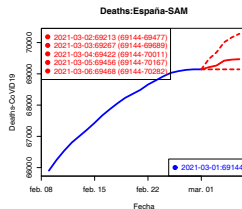
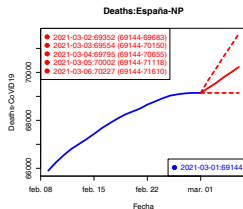
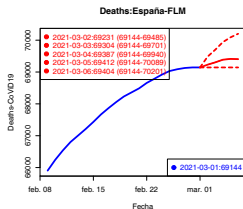
Tabla Ratio Incr. Fallecidos: Mod. Aditivo.

Last=01/03/2021

	Last	H1	H2	H3	H4	H5
España	0.0013	0.0010	0.0018	0.0040	0.0045	0.0047
Andalucía	0.0022	0.0023	0.0035	0.0063	0.0078	0.0075
Aragón	0.0015	0.0012	0.0025	0.0057	0.0067	0.0075
Asturias	0.0031	0.0033	0.0064	0.0103	0.0120	0.0136
Canarias	0.0030	0.0030	0.0069	0.0122	0.0145	0.0158
Cantabria	0.0013	0.0011	0.0019	0.0042	0.0044	0.0051
Castilla.y.León	0.0012	0.0011	0.0020	0.0035	0.0037	0.0044
Castilla.La.Mancha	0.0009	0.0006	0.0010	0.0024	0.0028	0.0033
Cataluña	0.0004	0.0005	0.0005	0.0022	0.0016	0.0016
Ceuta	0.0047	0.0037	0.0081	0.0207	0.0240	0.0227
Comunidad.Valenciana	0.0021	0.0022	0.0036	0.0052	0.0071	0.0076
Extremadura	0.0015	0.0014	0.0026	0.0027	0.0033	0.0052
Galicia	0.0036	0.0038	0.0061	0.0089	0.0109	0.0128
Islas.Baleares	0.0010	0.0002	0.0005	0.0031	0.0043	0.0042
La.Rioja	0.0009	0.0003	0.0007	0.0019	0.0029	0.0034
Madrid	0.0008	0.0005	0.0006	0.0034	0.0033	0.0026
Melilla	0.0000	0.0007	0.0003	0.0015	0.0001	0.0000
Murcia	0.0026	0.0027	0.0047	0.0065	0.0092	0.0107
Navarra	0.0006	0.0005	0.0009	0.0021	0.0022	0.0032
País.Vasco	0.0007	0.0002	0.0001	0.0020	0.0022	0.0013

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

Fallecidos: España

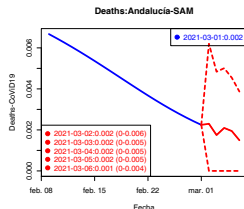
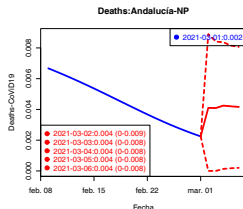
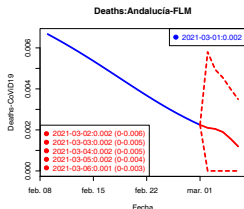
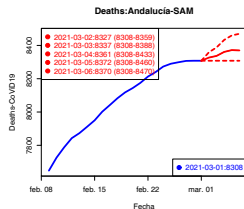
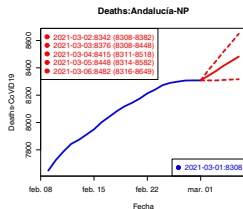
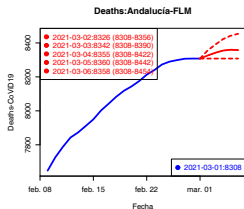


Los valores del Ratio de incremento de H2–H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Fallecidos: Andalucía

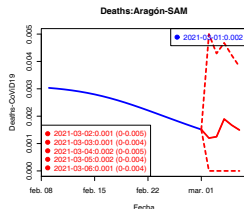
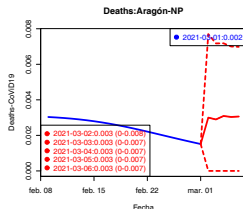
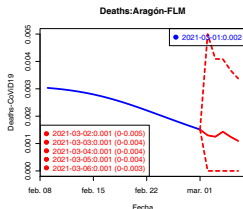
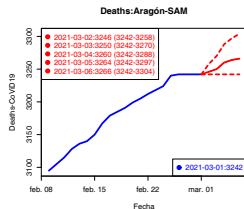
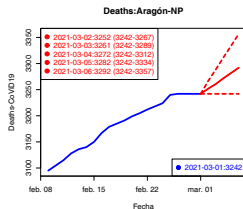
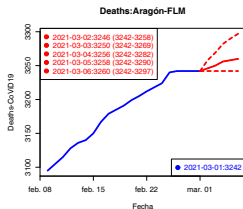


Los valores del Ratio de incremento de H2-H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Fallecidos: Aragón

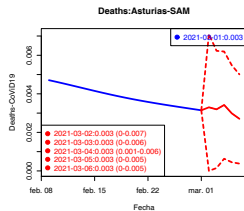
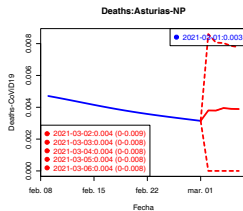
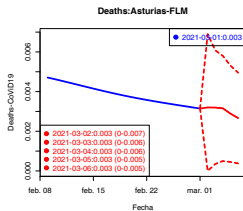
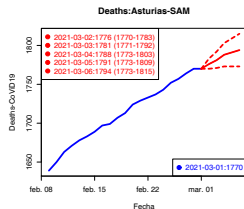
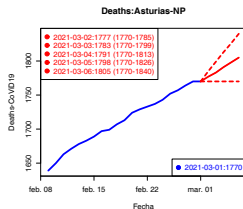
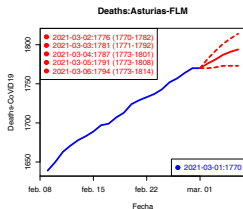


Los valores del Ratio de incremento de H2–H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Fallecidos: Asturias

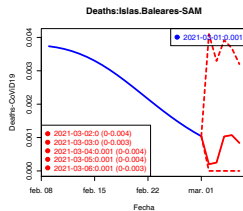
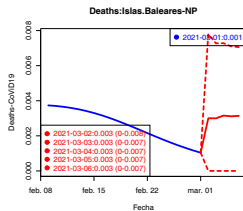
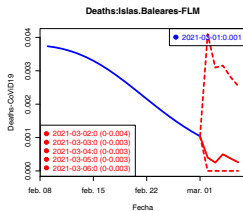
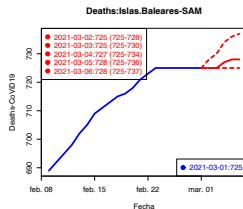
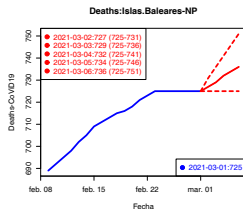
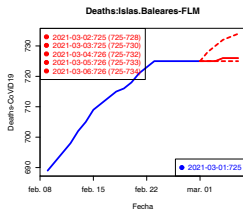


Los valores del Ratio de incremento de H2-H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Fallecidos: Islas Baleares

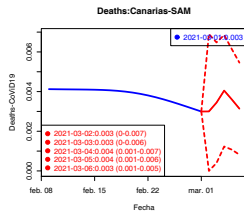
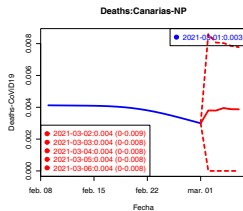
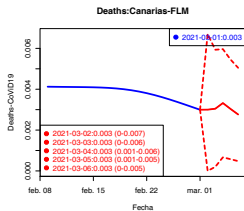
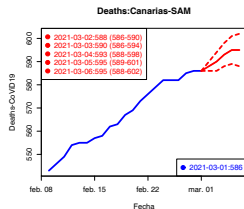
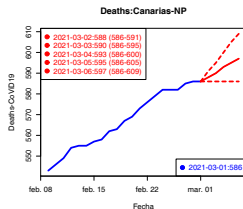
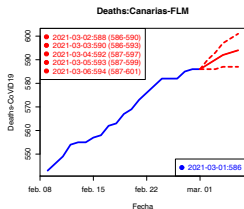


Los valores del Ratio de incremento de H2-H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Fallecidos: Canarias

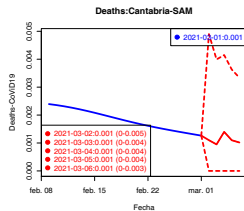
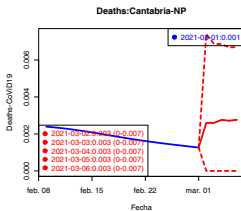
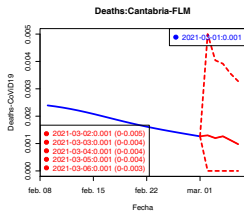
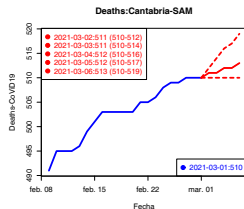
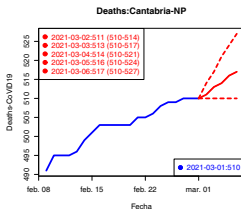
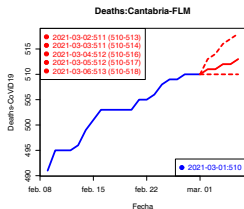


Los valores del Ratio de incremento de H2-H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Fallecidos: Cantabria

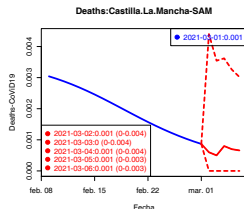
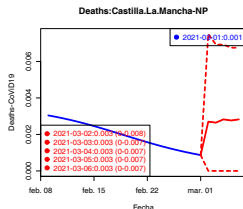
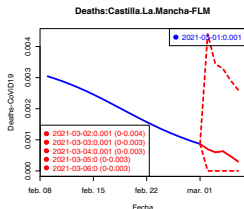
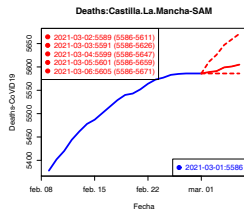
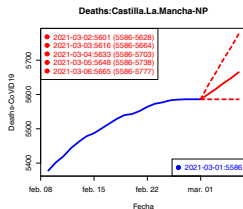
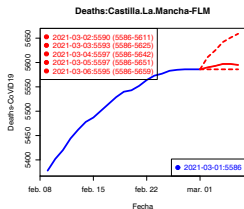


Los valores del Ratio de incremento de H2-H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Fallecidos: Castilla-La Mancha

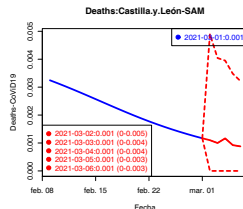
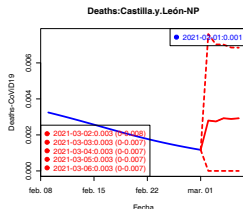
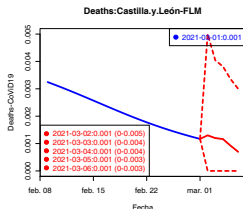
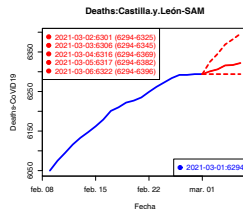
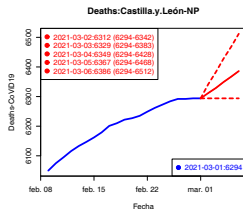
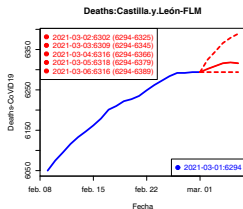


Los valores del Ratio de incremento de H2–H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Fallecidos: Castilla y León

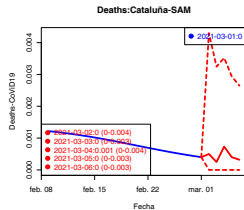
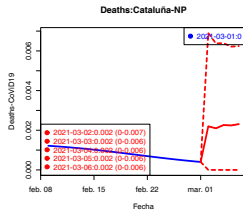
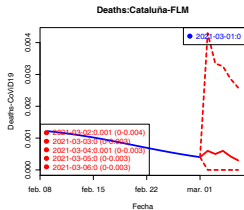
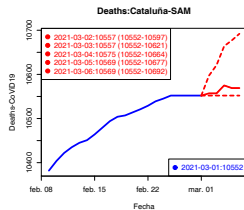
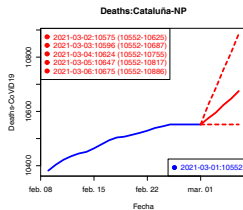
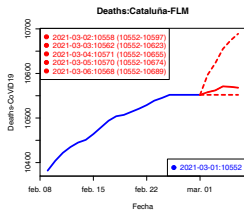


Los valores del Ratio de incremento de H2–H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

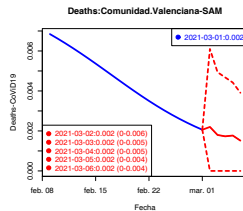
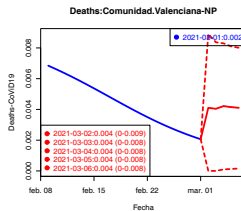
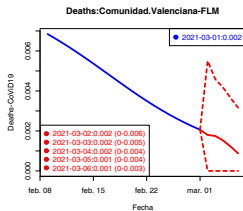
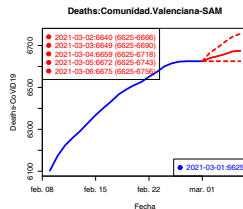
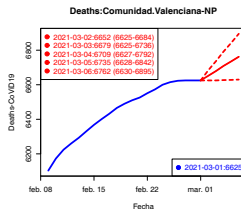
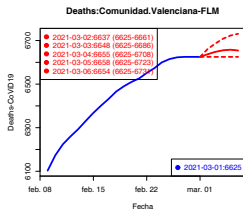
◀ Fallecidos

Fallecidos: Cataluña



Los valores del Ratio de incremento de H2–H5 están rescalados a H1 para su comparación gráfica.

Fallecidos: C. Valenciana

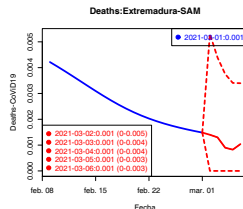
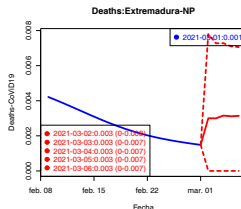
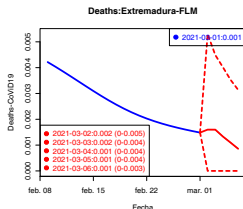
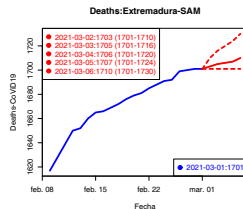
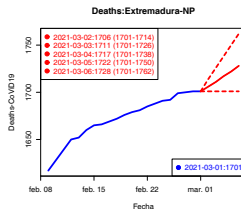
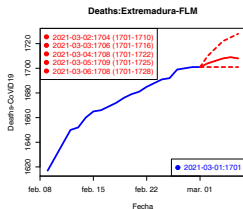


Los valores del Ratio de incremento de H2–H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Fallecidos: Extremadura

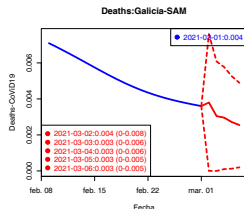
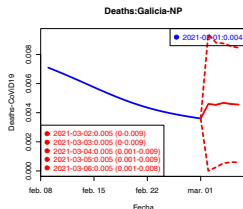
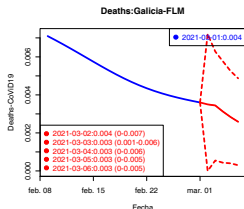
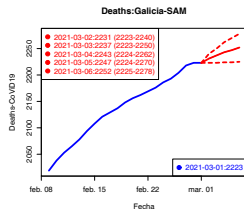
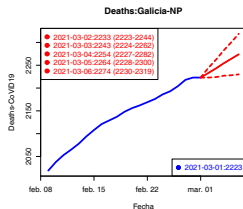
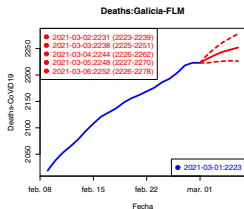


Los valores del Ratio de incremento de H2-H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Fallecidos: Galicia

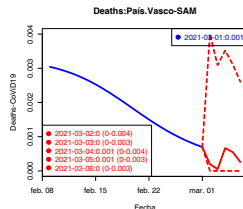
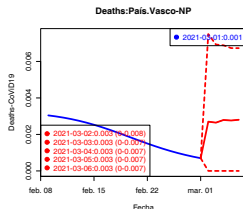
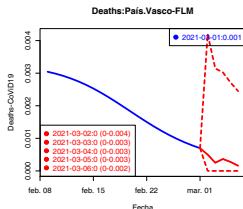
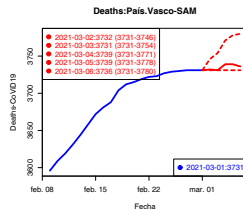
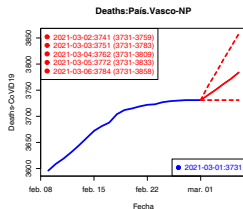
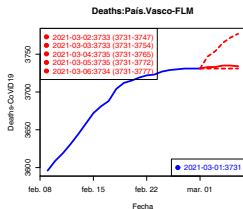


Los valores del Ratio de incremento de H2–H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

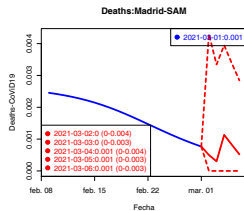
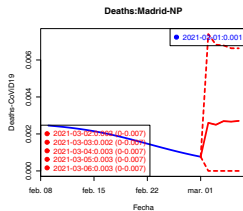
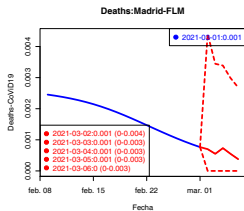
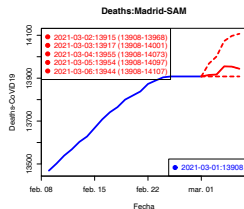
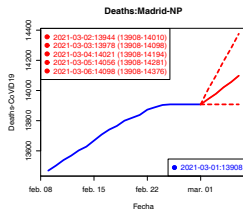
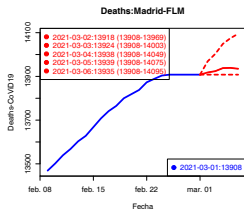
◀ Fallecidos

Fallecidos: País Vasco



Los valores del Ratio de incremento de H2-H5 están rescalados a H1 para su comparación gráfica.

Fallecidos: Madrid

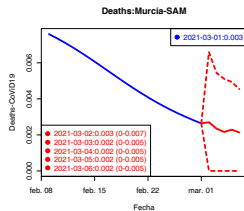
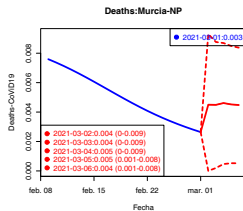
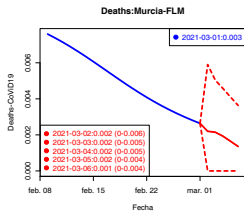
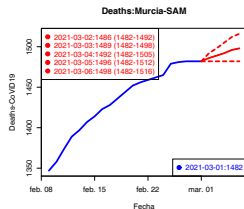
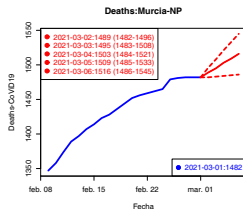
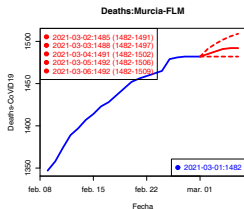


Los valores del Ratio de incremento de H2–H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Fallecidos: Murcia

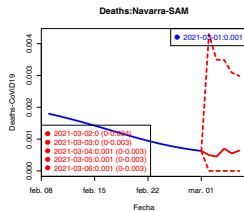
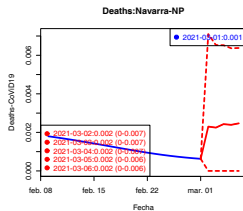
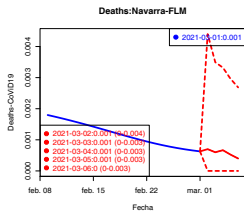
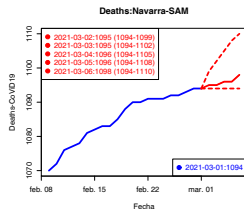
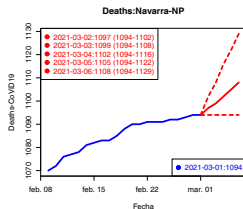
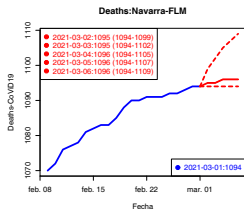


Los valores del Ratio de incremento de H2-H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

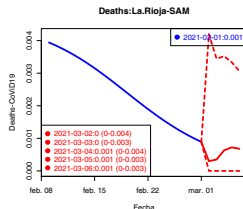
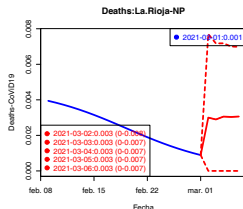
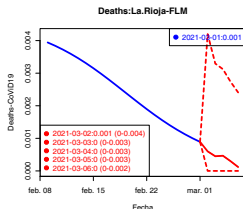
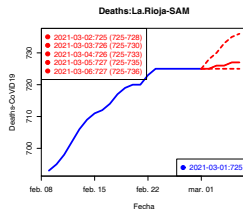
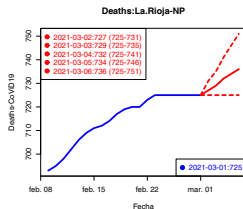
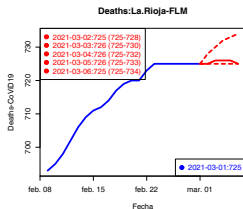
◀ Fallecidos

Fallecidos: Navarra



Los valores del Ratio de incremento de H2–H5 están rescalados a H1 para su comparación gráfica.

Fallecidos: La Rioja



Los valores del Ratio de incremento de H2–H5 están rescalados a H1 para su comparación gráfica.

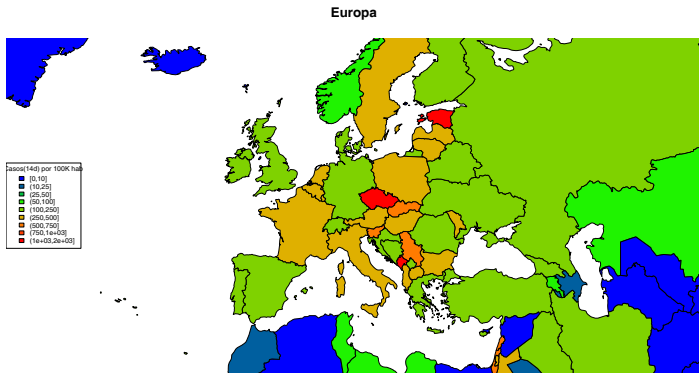
◀ Confirmados

◀ Fallecidos

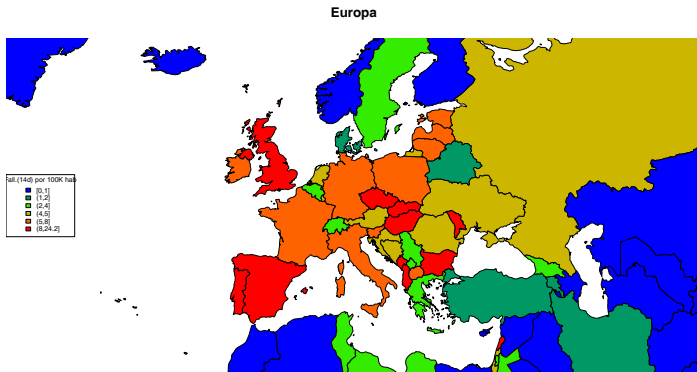
Table of Contents

- 1 Casos Confirmados
 - Predicciones
- 2 Fallecidos
 - Predicciones Fallecidos
- 3 Panorama internacional

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

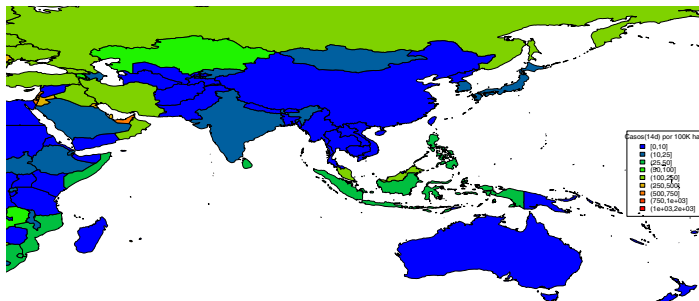


Europa: Fallecidos (14d) por 100K hab.



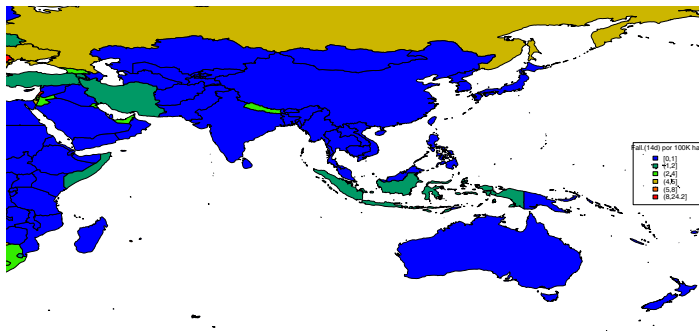
Asia y Oceanía: Incidencia acumulada (14d) por 100K hab.

Asia y Oceanía



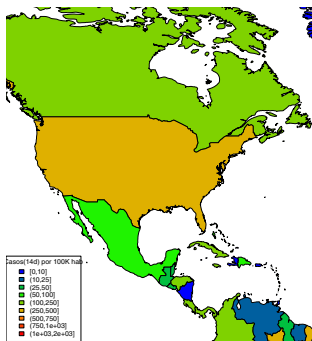
Asia y Oceanía: Fallecidos (14d) por 100K hab.

Asia y Oceanía

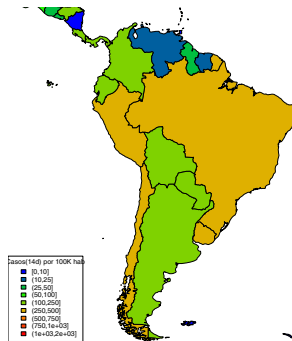


América: Incidencia acumulada (14d) por 100K hab.

América del Norte

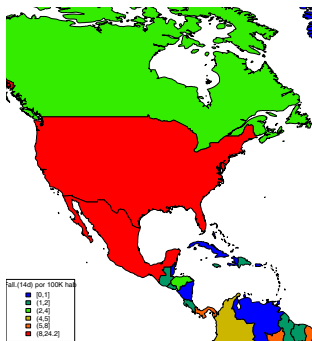


América del sur

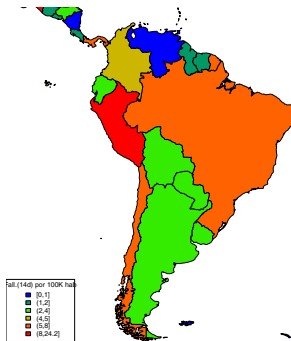


América: Fallecidos (14d) por 100K hab.

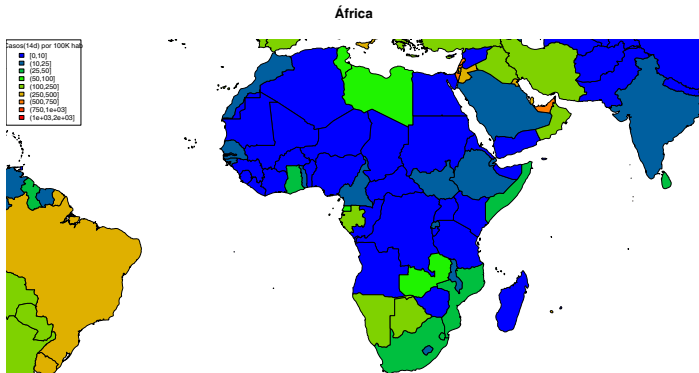
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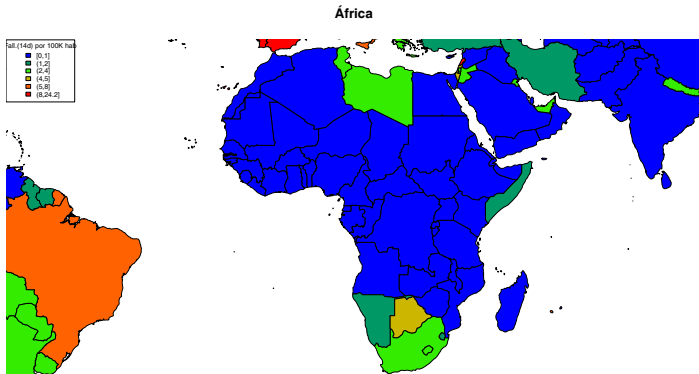
América del sur



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.