

Predicciones sobre CoViD-19

Manuel Febrero-Bande

Dpt. de Estadística, Análisis Matemático y Optimización
Univ. de Santiago de Compostela

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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: 02/03/2021

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	0.687	0.829	0.698
H2	0.032	0.011	0.03	0.017	0.009	0.017	0.692	0.901	0.711
H3	0.047	0.021	0.044	0.034	0.018	0.034	0.778	0.91	0.79
H4	0.067	0.033	0.063	0.057	0.03	0.056	0.816	0.917	0.825
H5	0.106	0.059	0.101	0.085	0.044	0.084	0.818	0.908	0.826

Último dato fichero: 02/03/2021.

Tabla Previsión Confirmados: Mod. Lineal.

Last=02/03/2021

	Last	IA14	IA7	H1	H2	H3	H4	H5
España	3136352	129	46	3141023	3145149	3148673	3152321	3155070
Andalucía	480371	113	41	481126	481800	482340	482848	483166
Aragón	107198	159	63	107368	107523	107656	107795	107910
Asturias	43868	150	53	43955	44031	44104	44178	44228
Canarias	41173	88	36	41295	41416	41525	41633	41727
Cantabria	24789	93	31	24825	24855	24882	24909	24928
Castilla.y.León	206693	131	47	206973	207224	207428	207640	207799
Castilla.La.Mancha	169588	76	26	169764	169913	170028	170152	170231
Cataluña	504875	172	60	505750	506561	507274	508007	508567
Ceuta	4697	267	164	4721	4744	4768	4794	4822
Comunidad.Valenciana	379923	69	20	380292	380582	380795	381027	381166
Extremadura	69087	44	17	69156	69214	69258	69307	69341
Galicia	112330	99	32	112503	112651	112775	112897	112976
Islas.Baleares	56238	51	16	56294	56336	56373	56416	56447
La.Rioja	27510	59	25	27538	27560	27579	27601	27617
Madrid	590571	205	74	591557	592420	593201	594043	594762
Melilla	7047	307	110	7064	7080	7095	7109	7121
Murcia	106653	73	24	106765	106859	106935	107019	107078
Navarra	51503	109	44	51572	51636	51690	51747	51794
País.Vasco	152238	177	67	152507	152746	152969	153203	153390

Cuadro: Previsión Confirmados: Mod. Lineal - Horizonte 1 – 5 días.

Tabla Previsión Confirmados: Mod. Aditivo.

Last=02/03/2021

	Last	IA14	IA7	H1	H2	H3	H4	H5
España	3136352	129	46	3140235	3144641	3147989	3150411	3153560
Andalucía	480371	113	41	481025	481600	482124	482447	482808
Aragón	107198	159	63	107340	107505	107633	107734	107860
Asturias	43868	150	53	43962	44071	44150	44204	44257
Canarias	41173	88	36	41307	41459	41576	41668	41762
Cantabria	24789	93	31	24821	24861	24888	24907	24929
Castilla.y.León	206693	131	47	206911	207134	207320	207451	207628
Castilla.La.Mancha	169588	76	26	169706	169807	169902	169960	170048
Cataluña	504875	172	60	505684	506801	507525	508070	508703
Ceuta	4697	267	164	4717	4731	4750	4773	4796
Comunidad.Valenciana	379923	69	20	380161	380289	380453	380519	380668
Extremadura	69087	44	17	69132	69157	69191	69212	69244
Galicia	112330	99	32	112489	112662	112794	112877	112976
Islas.Baleares	56238	51	16	56272	56301	56328	56347	56382
La.Rioja	27510	59	25	27528	27536	27550	27561	27576
Madrid	590571	205	74	591388	592373	593095	593688	594475
Melilla	7047	307	110	7064	7086	7101	7113	7126
Murcia	106653	73	24	106728	106807	106873	106918	106987
Navarra	51503	109	44	51558	51627	51680	51725	51777
País.Vasco	152238	177	67	152480	152777	152992	153164	153370

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

Tabla Ratio Incr. Confirmados: Mod. Lineal.

Last=02/03/2021

	Last	H1	H2	H3	H4	H5
España	0.0010	0.0015	0.0028	0.0039	0.0051	0.0060
Andalucía	0.0010	0.0016	0.0030	0.0041	0.0052	0.0058
Aragón	0.0011	0.0016	0.0030	0.0043	0.0056	0.0066
Asturias	0.0018	0.0020	0.0037	0.0054	0.0071	0.0082
Canarias	0.0028	0.0030	0.0059	0.0086	0.0112	0.0135
Cantabria	0.0011	0.0014	0.0026	0.0037	0.0049	0.0056
Castilla.y.León	0.0008	0.0014	0.0026	0.0036	0.0046	0.0054
Castilla.La.Mancha	0.0004	0.0010	0.0019	0.0026	0.0033	0.0038
Cataluña	0.0014	0.0017	0.0033	0.0048	0.0062	0.0073
Ceuta	0.0044	0.0051	0.0101	0.0152	0.0207	0.0266
Comunidad.Valenciana	0.0004	0.0010	0.0017	0.0023	0.0029	0.0033
Extremadura	0.0004	0.0010	0.0018	0.0025	0.0032	0.0037
Galicia	0.0012	0.0015	0.0029	0.0040	0.0050	0.0058
Islas.Baleares	0.0005	0.0010	0.0017	0.0024	0.0032	0.0037
La.Rioja	0.0004	0.0010	0.0018	0.0025	0.0033	0.0039
Madrid	0.0013	0.0017	0.0031	0.0045	0.0059	0.0071
Melilla	0.0022	0.0024	0.0048	0.0068	0.0088	0.0106
Murcia	0.0005	0.0010	0.0019	0.0026	0.0034	0.0040
Navarra	0.0008	0.0013	0.0026	0.0036	0.0047	0.0057
País.Vasco	0.0014	0.0018	0.0033	0.0048	0.0063	0.0076

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

Tabla Ratio Incr. Confirmados: Mod. No Paramétrico.

Last=02/03/2021

	Last	H1	H2	H3	H4	H5
España	0.0010	0.0020	0.0041	0.0061	0.0080	0.0101
Andalucía	0.0010	0.0022	0.0045	0.0067	0.0088	0.0111
Aragón	0.0011	0.0019	0.0039	0.0058	0.0078	0.0098
Asturias	0.0018	0.0031	0.0062	0.0093	0.0123	0.0153
Canarias	0.0028	0.0037	0.0072	0.0109	0.0145	0.0181
Cantabria	0.0011	0.0022	0.0045	0.0067	0.0089	0.0111
Castilla.y.León	0.0008	0.0016	0.0034	0.0050	0.0067	0.0085
Castilla.La.Mancha	0.0004	0.0013	0.0027	0.0040	0.0053	0.0067
Cataluña	0.0014	0.0024	0.0049	0.0073	0.0097	0.0121
Ceuta	0.0044	0.0038	0.0076	0.0115	0.0153	0.0192
Comunidad.Valenciana	0.0004	0.0013	0.0028	0.0042	0.0056	0.0071
Extremadura	0.0004	0.0011	0.0024	0.0036	0.0048	0.0061
Galicia	0.0012	0.0024	0.0050	0.0074	0.0097	0.0122
Islas.Baleares	0.0005	0.0014	0.0029	0.0043	0.0057	0.0073
La.Rioja	0.0004	0.0011	0.0024	0.0035	0.0048	0.0061
Madrid	0.0013	0.0023	0.0047	0.0069	0.0091	0.0115
Melilla	0.0022	0.0032	0.0064	0.0096	0.0127	0.0159
Murcia	0.0005	0.0013	0.0027	0.0041	0.0055	0.0069
Navarra	0.0008	0.0014	0.0030	0.0044	0.0060	0.0075
País.Vasco	0.0014	0.0024	0.0049	0.0073	0.0097	0.0121

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

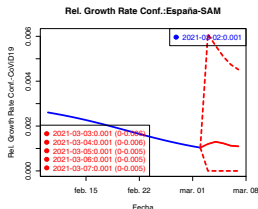
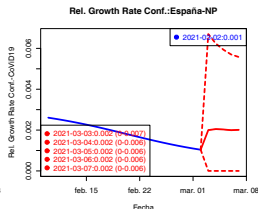
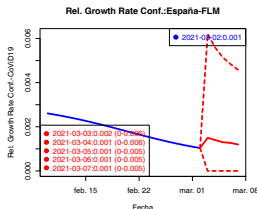
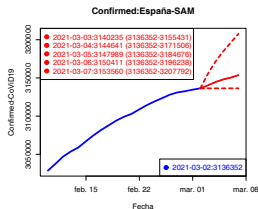
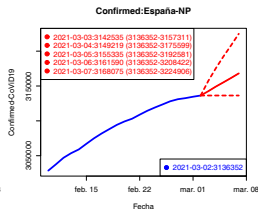
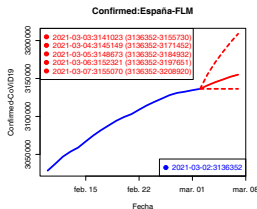
Tabla Ratio Incr. Confirmados: Mod. Aditivo.

Last=02/03/2021

	Last	H1	H2	H3	H4	H5
España	0.0010	0.0012	0.0026	0.0037	0.0045	0.0055
Andalucía	0.0010	0.0014	0.0026	0.0036	0.0043	0.0051
Aragón	0.0011	0.0013	0.0029	0.0041	0.0050	0.0062
Asturias	0.0018	0.0021	0.0046	0.0064	0.0077	0.0089
Canarias	0.0028	0.0033	0.0069	0.0098	0.0120	0.0143
Cantabria	0.0011	0.0013	0.0029	0.0040	0.0048	0.0057
Castilla.y.León	0.0008	0.0011	0.0021	0.0030	0.0037	0.0045
Castilla.La.Mancha	0.0004	0.0007	0.0013	0.0019	0.0022	0.0027
Cataluña	0.0014	0.0016	0.0038	0.0052	0.0063	0.0076
Ceuta	0.0044	0.0043	0.0073	0.0114	0.0162	0.0210
Comunidad.Valenciana	0.0004	0.0006	0.0010	0.0014	0.0016	0.0020
Extremadura	0.0004	0.0006	0.0010	0.0015	0.0018	0.0023
Galicia	0.0012	0.0014	0.0030	0.0041	0.0049	0.0057
Islas.Baleares	0.0005	0.0006	0.0011	0.0016	0.0019	0.0026
La.Rioja	0.0004	0.0006	0.0009	0.0015	0.0018	0.0024
Madrid	0.0013	0.0014	0.0031	0.0043	0.0053	0.0066
Melilla	0.0022	0.0025	0.0055	0.0077	0.0093	0.0112
Murcia	0.0005	0.0007	0.0014	0.0021	0.0025	0.0031
Navarra	0.0008	0.0011	0.0024	0.0034	0.0043	0.0053
País.Vasco	0.0014	0.0016	0.0035	0.0050	0.0061	0.0074

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

Confirmados: España



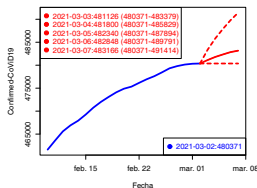
Los valores del Ratio de incremento de H2-H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

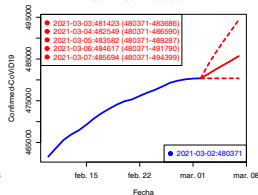
◀ Fallecidos

Confirmados: Andalucía

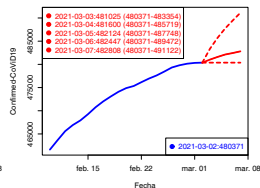
Confirmed:Andalucía-FLM



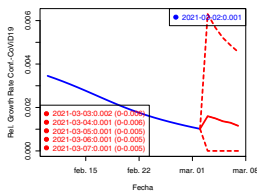
Confirmed:Andalucía-NP



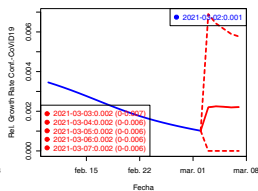
Confirmed:Andalucía-SAM



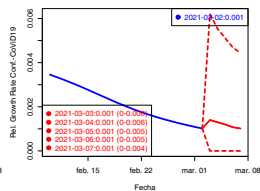
Rel. Growth Rate Conf.:Andalucía-FLM



Rel. Growth Rate Conf.:Andalucía-NP



Rel. Growth Rate Conf.:Andalucía-SAM

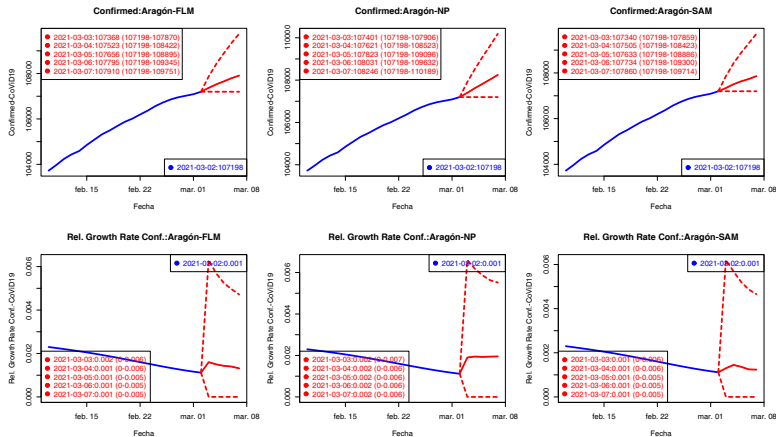


Los valores del Ratio de incremento de H2-H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Confirmados: Aragón

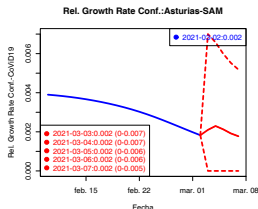
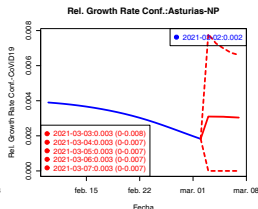
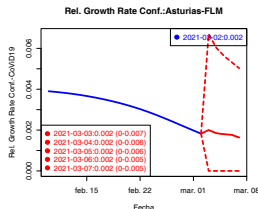
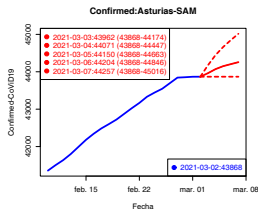
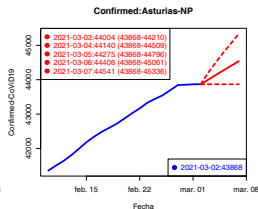
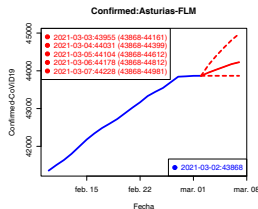


Los valores del Ratio de incremento de H2–H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Confirmados: Asturias

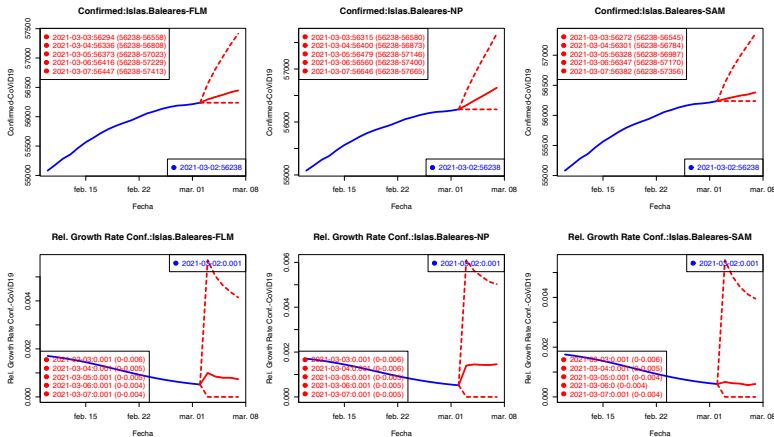


Los valores del Ratio de incremento de H2-H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Confirmados: Islas Baleares



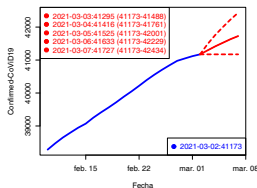
Los valores del Ratio de incremento de H2–H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

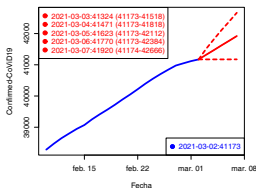
◀ Fallecidos

Confirmados: Canarias

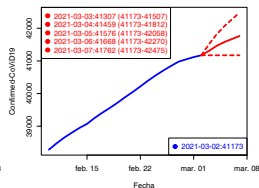
Confirmed:Canarias-FLM



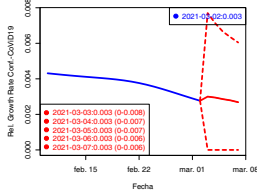
Confirmed:Canarias-NP



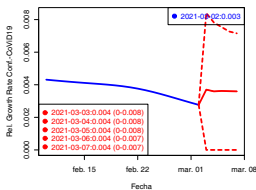
Confirmed:Canarias-SAM



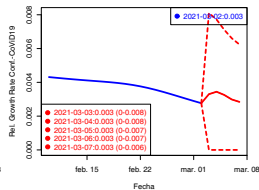
Rel. Growth Rate Conf.:Canarias-FLM



Rel. Growth Rate Conf.:Canarias-NP



Rel. Growth Rate Conf.:Canarias-SAM



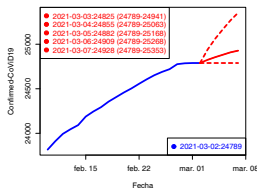
Los valores del Ratio de incremento de H2–H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

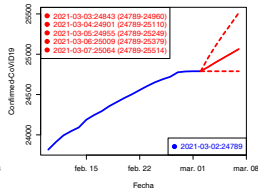
◀ Fallecidos

Confirmados: Cantabria

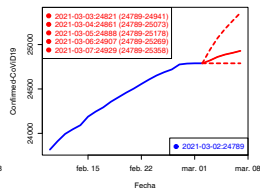
Confirmed:Cantabria-FLM



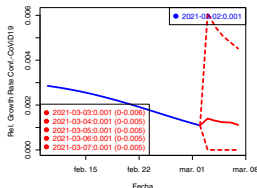
Confirmed:Cantabria-NP



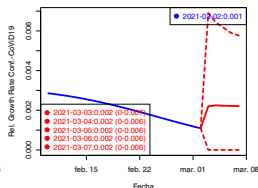
Confirmed:Cantabria-SAM



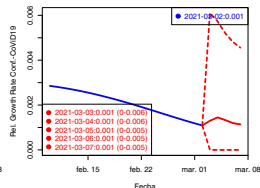
Rel. Growth Rate Conf.:Cantabria-FLM



Rel. Growth Rate Conf.:Cantabria-NP



Rel. Growth Rate Conf.:Cantabria-SAM

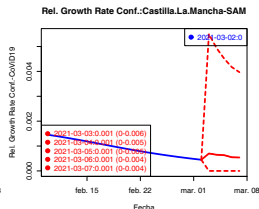
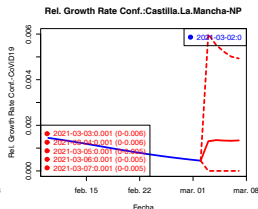
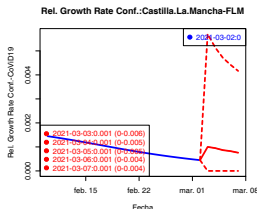
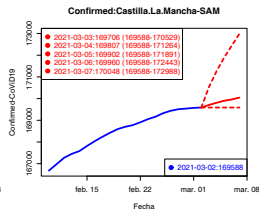
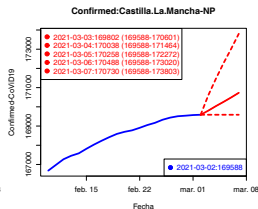
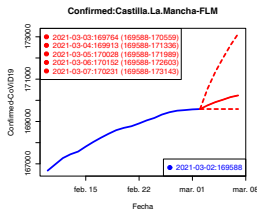


Los valores del Ratio de incremento de H2-H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Confirmados: Castilla-La Mancha

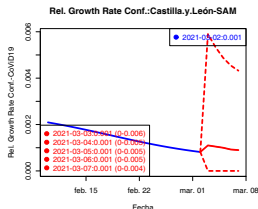
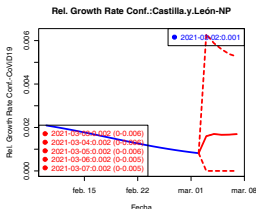
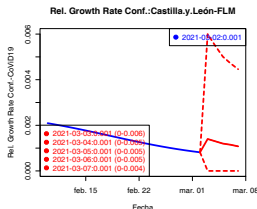
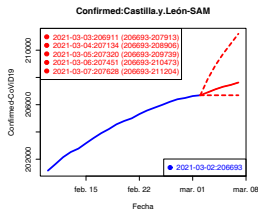
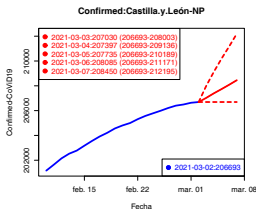
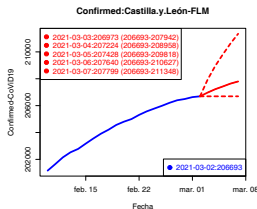


Los valores del Ratio de incremento de H2–H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Confirmados: Castilla y León

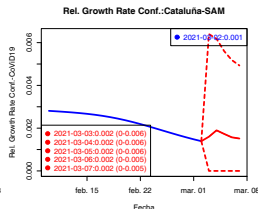
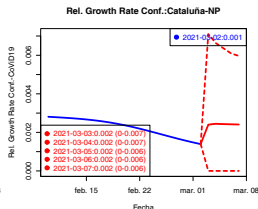
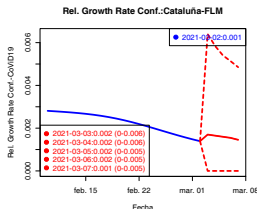
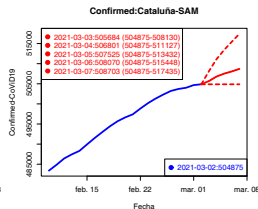
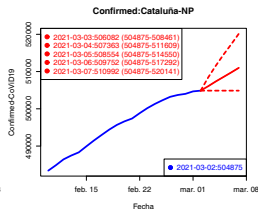
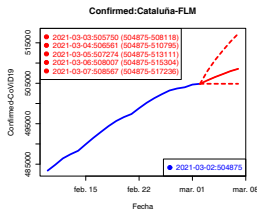


Los valores del Ratio de incremento de H2-H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Confirmados: Cataluña



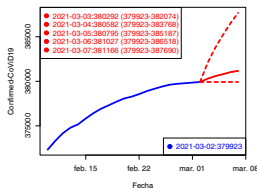
Los valores del Ratio de incremento de H2–H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

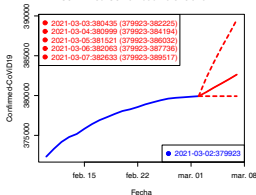
◀ Fallecidos

Confirmados: C. Valenciana

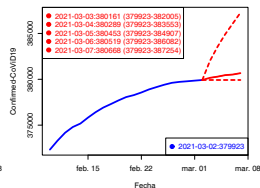
Confirmed:Comunidad.Valenciana-FLM



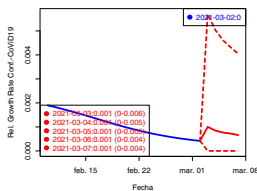
Confirmed:Comunidad.Valenciana-NP



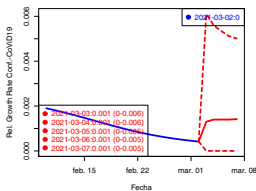
Confirmed:Comunidad.Valenciana-SAM



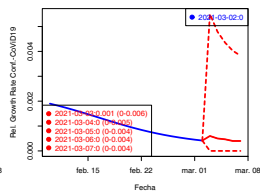
Rel. Growth Rate Conf.:Comunidad.Valenciana-FLM



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



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

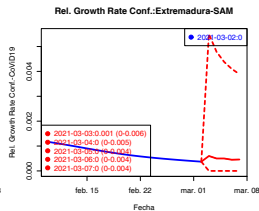
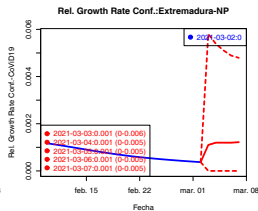
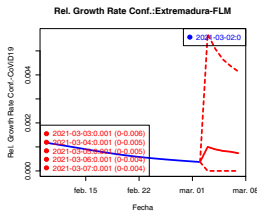
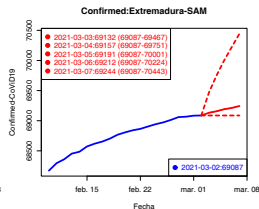
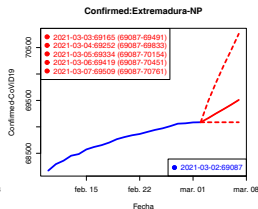
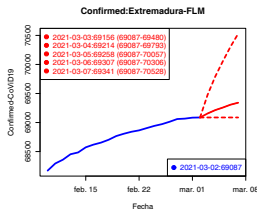


Los valores del Ratio de incremento de H2-H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Confirmados: Extremadura



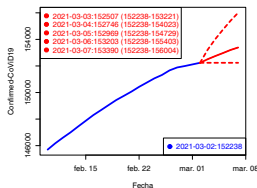
Los valores del Ratio de incremento de H2-H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

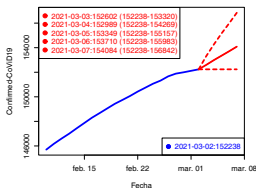
◀ Fallecidos

Confirmados: País Vasco

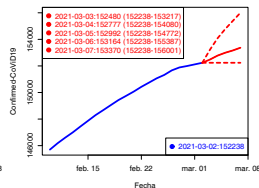
Confirmed:País.Vasco-FLM



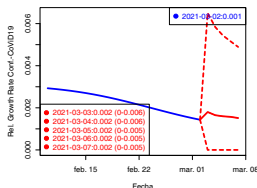
Confirmed:País.Vasco-NP



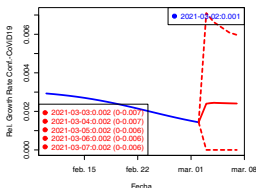
Confirmed:País.Vasco-SAM



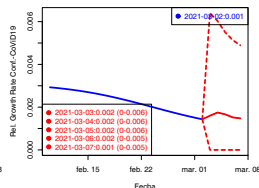
Rel. Growth Rate Conf.:País.Vasco-FLM



Rel. Growth Rate Conf.:País.Vasco-NP



Rel. Growth Rate Conf.:País.Vasco-SAM

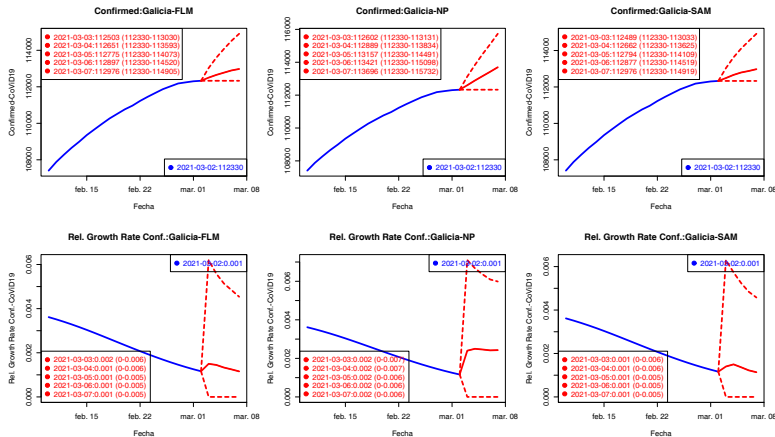


Los valores del Ratio de incremento de H2-H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Confirmados: Galicia



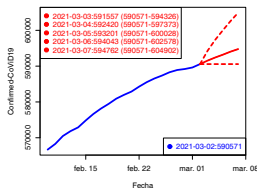
Los valores del Ratio de incremento de H2–H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

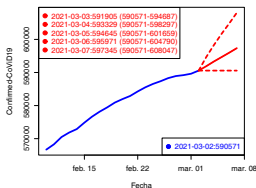
◀ Fallecidos

Confirmados: Madrid

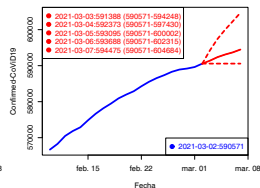
Confirmed:Madrid-FLM



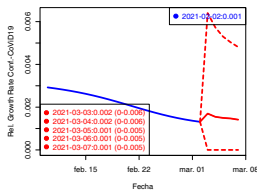
Confirmed:Madrid-NP



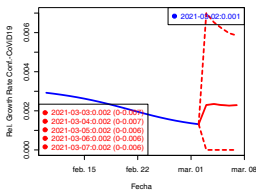
Confirmed:Madrid-SAM



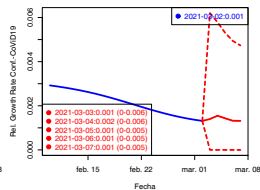
Rel. Growth Rate Conf.:Madrid-FLM



Rel. Growth Rate Conf.:Madrid-NP



Rel. Growth Rate Conf.:Madrid-SAM

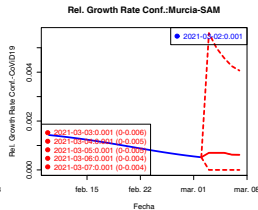
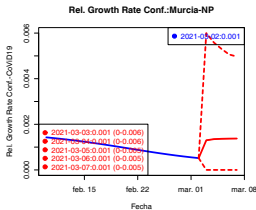
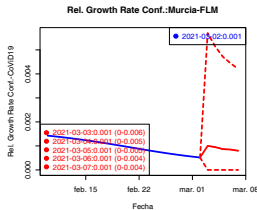
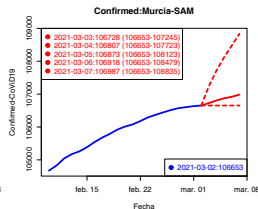
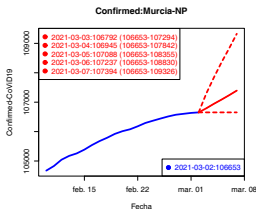
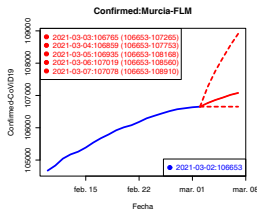


Los valores del Ratio de incremento de H2-H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Confirmados: Murcia

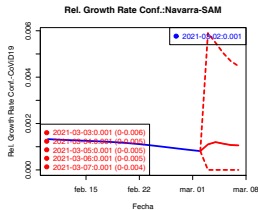
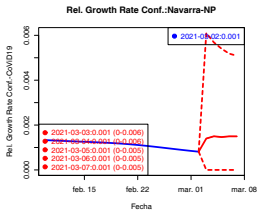
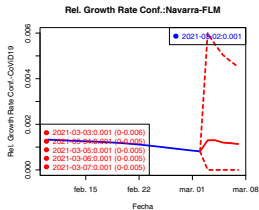
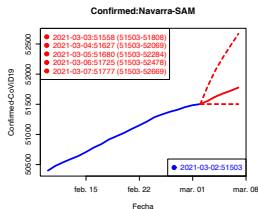
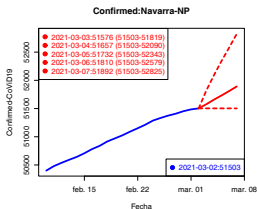
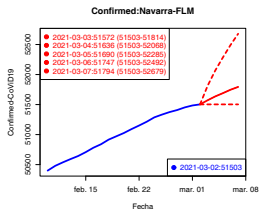


Los valores del Ratio de incremento de H2-H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Confirmados: Navarra

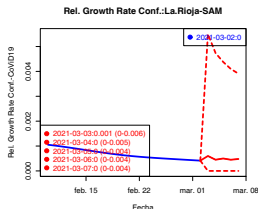
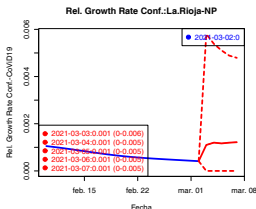
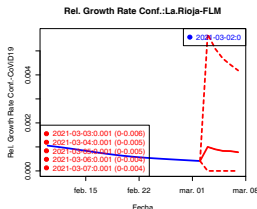
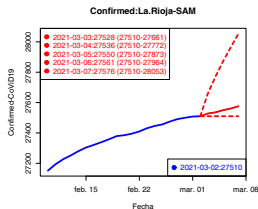
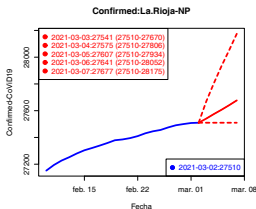
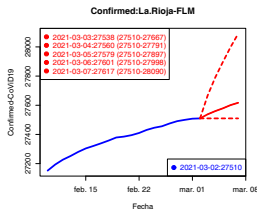


Los valores del Ratio de incremento de H2–H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Confirmados: La Rioja



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

◀ Confirmados

◀ Fallecidos

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 - Predicciones
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- 3 Panorama internacional

Modelos para fallecidos por CoViD-19

Último dato: 03/03/2021 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	0.664	0.656	0.684
H2	0.01	0.011	0.009	0.005	0.006	0.005	0.715	0.699	0.732
H3	0.03	0.032	0.029	0.009	0.011	0.008	0.652	0.638	0.66
H4	0.033	0.036	0.032	0.013	0.017	0.012	0.751	0.732	0.758
H5	0.044	0.049	0.042	0.019	0.024	0.016	0.787	0.765	0.795

Tabla Previsión Fallecidos: Mod. Lineal.

Last=03/03/2021

	Last	H1	H2	H3	H4	H5
España	69781	69873	69953	70054	70095	70112
Andalucía	8390	8405	8419	8435	8442	8445
Aragón	3263	3268	3273	3279	3282	3284
Asturias	1780	1785	1791	1797	1800	1803
Canarias	596	598	601	604	606	607
Cantabria	515	516	517	518	518	519
Castilla y León	6381	6391	6400	6410	6415	6418
Castilla-La Mancha	5616	5621	5625	5630	5631	5630
Cataluña	10643	10650	10655	10665	10667	10666
Ceuta	83	83	84	84	85	85
Comunidad Valenciana	6695	6703	6709	6717	6719	6717
Extremadura	1708	1711	1713	1715	1715	1715
Galicia	2230	2236	2243	2248	2252	2255
Islas Baleares	727	727	728	728	728	727
La Rioja	728	729	729	729	729	729
Madrid	14049	14063	14074	14093	14100	14103
Melilla	0	0	0	0	0	0
Murcia	1496	1499	1503	1505	1506	1506
Navarra	1099	1100	1100	1101	1101	1100
País Vasco	3782	3787	3792	3798	3801	3802

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

Tabla Previsión Fallecidos: Mod. Aditivo.

Last=03/03/2021

	Last	H1	H2	H3	H4	H5
España	69781	69867	69961	70146	70165	70235
Andalucía	8390	8406	8420	8451	8458	8472
Aragón	3263	3268	3273	3284	3286	3293
Asturias	1780	1786	1792	1797	1801	1804
Canarias	596	599	601	604	605	608
Cantabria	515	516	516	518	518	519
Castilla y León	6381	6390	6400	6419	6422	6431
Castilla-La Mancha	5616	5621	5627	5639	5639	5641
Cataluña	10643	10652	10654	10664	10661	10664
Ceuta	83	83	84	84	85	85
Comunidad Valenciana	6695	6704	6715	6735	6737	6748
Extremadura	1708	1710	1713	1717	1718	1717
Galicia	2230	2237	2242	2251	2255	2258
Islas Baleares	727	727	728	729	729	730
La Rioja	728	729	730	731	731	731
Madrid	14049	14061	14070	14104	14105	14121
Melilla	0	0	0	0	0	0
Murcia	1496	1500	1504	1508	1510	1512
Navarra	1099	1100	1100	1102	1102	1102
País Vasco	3782	3787	3792	3801	3803	3807

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

Tabla Ratio Incr. Fallecidos: Mod. Lineal.

Last=03/03/2021

	Last	H1	H2	H3	H4	H5
España	0.0014	0.0013	0.0025	0.0039	0.0045	0.0047
Andalucía	0.0022	0.0018	0.0034	0.0053	0.0062	0.0066
Aragón	0.0017	0.0015	0.0030	0.0049	0.0059	0.0066
Asturias	0.0030	0.0031	0.0062	0.0093	0.0113	0.0131
Canarias	0.0039	0.0040	0.0082	0.0129	0.0161	0.0193
Cantabria	0.0017	0.0016	0.0030	0.0051	0.0063	0.0076
Castilla.y.León	0.0015	0.0015	0.0029	0.0046	0.0053	0.0058
Castilla.La.Mancha	0.0009	0.0009	0.0016	0.0025	0.0026	0.0025
Cataluña	0.0005	0.0007	0.0012	0.0021	0.0022	0.0021
Ceuta	0.0046	0.0039	0.0081	0.0147	0.0189	0.0229
Comunidad.Valenciana	0.0017	0.0012	0.0022	0.0032	0.0035	0.0032
Extremadura	0.0012	0.0015	0.0030	0.0040	0.0042	0.0039
Galicia	0.0030	0.0028	0.0056	0.0082	0.0099	0.0110
Islas.Baleares	0.0009	0.0006	0.0008	0.0012	0.0012	0.0007
La.Rioja	0.0010	0.0008	0.0013	0.0018	0.0019	0.0017
Madrid	0.0011	0.0010	0.0018	0.0031	0.0036	0.0038
Melilla	0.0000	0.0005	0.0007	0.0014	0.0014	0.0012
Murcia	0.0024	0.0023	0.0046	0.0060	0.0068	0.0068
Navarra	0.0004	0.0005	0.0008	0.0014	0.0014	0.0012
País.Vasco	0.0014	0.0014	0.0026	0.0042	0.0049	0.0053

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

Tabla Ratio Incr. Fallecidos: Mod. No Paramétrico.

Last=03/03/2021

	Last	H1	H2	H3	H4	H5
España	0.0014	0.0026	0.0051	0.0081	0.0107	0.0137
Andalucía	0.0022	0.0037	0.0073	0.0116	0.0152	0.0190
Aragón	0.0017	0.0026	0.0052	0.0082	0.0109	0.0139
Asturias	0.0030	0.0036	0.0070	0.0110	0.0146	0.0182
Canarias	0.0039	0.0040	0.0078	0.0124	0.0163	0.0203
Cantabria	0.0017	0.0023	0.0045	0.0072	0.0095	0.0123
Castilla.y.León	0.0015	0.0025	0.0049	0.0078	0.0104	0.0133
Castilla.La.Mancha	0.0009	0.0022	0.0042	0.0068	0.0090	0.0117
Cataluña	0.0005	0.0016	0.0031	0.0053	0.0069	0.0093
Ceuta	0.0046	0.0047	0.0093	0.0146	0.0192	0.0238
Comunidad.Valenciana	0.0017	0.0035	0.0068	0.0107	0.0142	0.0177
Extremadura	0.0012	0.0024	0.0047	0.0075	0.0100	0.0129
Galicia	0.0030	0.0040	0.0080	0.0125	0.0165	0.0205
Islas.Baleares	0.0009	0.0026	0.0050	0.0080	0.0106	0.0135
La.Rioja	0.0010	0.0024	0.0047	0.0075	0.0100	0.0128
Madrid	0.0011	0.0022	0.0044	0.0070	0.0093	0.0120
Melilla	0.0000	0.0013	0.0025	0.0043	0.0056	0.0077
Murcia	0.0024	0.0041	0.0080	0.0126	0.0166	0.0206
Navarra	0.0004	0.0017	0.0032	0.0054	0.0072	0.0095
País.Vasco	0.0014	0.0025	0.0049	0.0078	0.0104	0.0133

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

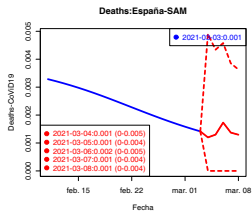
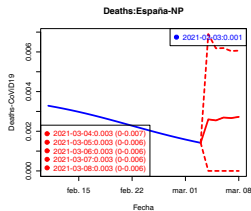
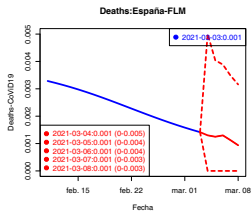
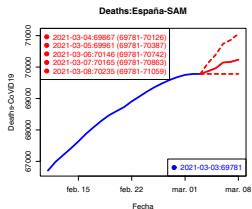
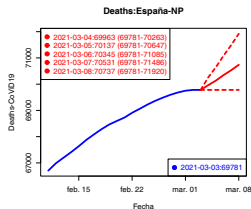
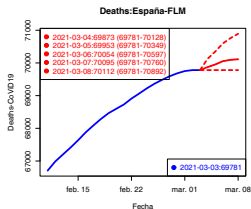
Tabla Ratio Incr. Fallecidos: Mod. Aditivo.

Last=03/03/2021

	Last	H1	H2	H3	H4	H5
España	0.0014	0.0012	0.0026	0.0052	0.0055	0.0065
Andalucía	0.0022	0.0020	0.0036	0.0073	0.0081	0.0098
Aragón	0.0017	0.0014	0.0032	0.0065	0.0071	0.0091
Asturias	0.0030	0.0033	0.0066	0.0098	0.0116	0.0137
Canarias	0.0039	0.0043	0.0087	0.0126	0.0156	0.0204
Cantabria	0.0017	0.0016	0.0029	0.0055	0.0063	0.0086
Castilla.y.León	0.0015	0.0013	0.0030	0.0060	0.0065	0.0078
Castilla.La.Mancha	0.0009	0.0008	0.0019	0.0042	0.0041	0.0044
Cataluña	0.0005	0.0008	0.0010	0.0020	0.0016	0.0020
Ceuta	0.0046	0.0036	0.0068	0.0145	0.0183	0.0249
Comunidad.Valenciana	0.0017	0.0013	0.0030	0.0060	0.0063	0.0079
Extremadura	0.0012	0.0013	0.0032	0.0054	0.0057	0.0051
Galicia	0.0030	0.0030	0.0056	0.0094	0.0112	0.0126
Islas.Baleares	0.0009	0.0005	0.0013	0.0031	0.0029	0.0035
La.Rioja	0.0010	0.0008	0.0021	0.0034	0.0036	0.0036
Madrid	0.0011	0.0009	0.0015	0.0039	0.0040	0.0051
Melilla	0.0000	0.0010	0.0003	0.0000	0.0000	0.0000
Murcia	0.0024	0.0024	0.0054	0.0080	0.0095	0.0107
Navarra	0.0004	0.0005	0.0011	0.0027	0.0025	0.0026
País.Vasco	0.0014	0.0013	0.0028	0.0051	0.0054	0.0065

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

Fallecidos: España

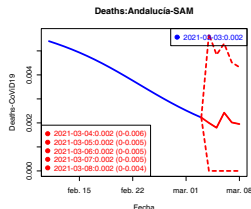
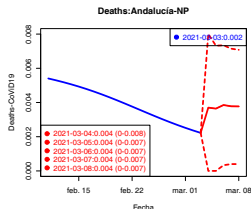
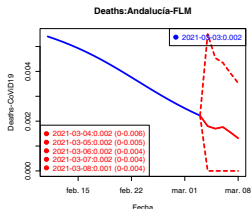
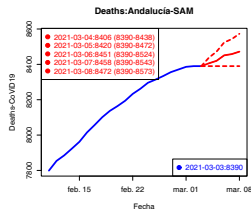
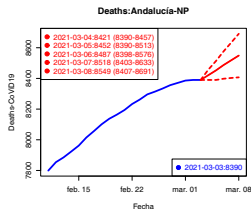
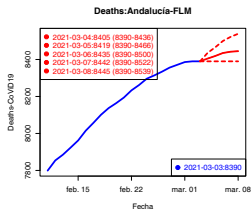


Los valores del Ratio de incremento de H2–H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Fallecidos: Andalucía

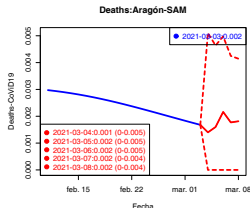
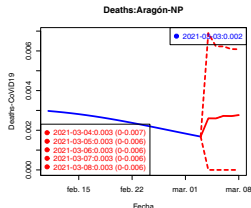
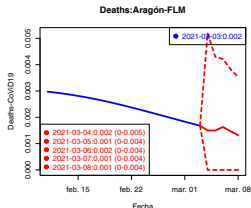
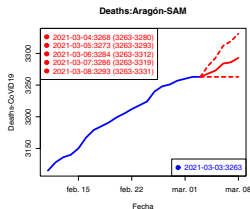
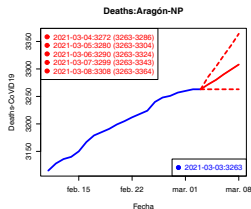
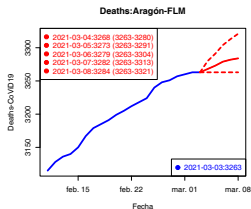


Los valores del Ratio de incremento de H2–H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Fallecidos: Aragón

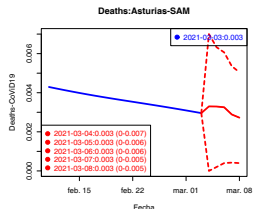
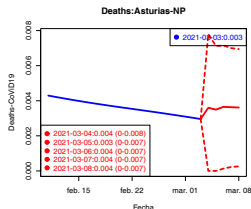
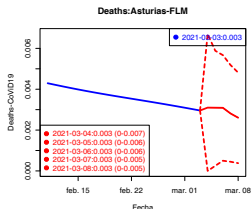
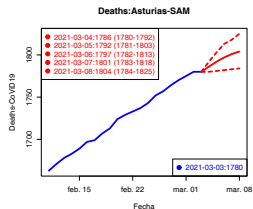
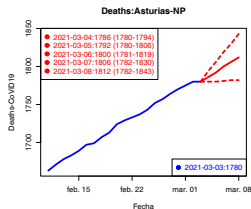
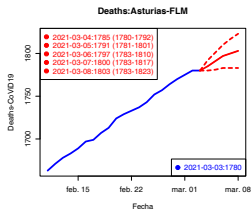


Los valores del Ratio de incremento de H2–H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

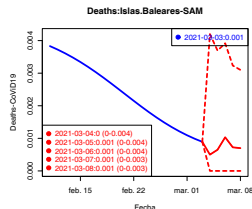
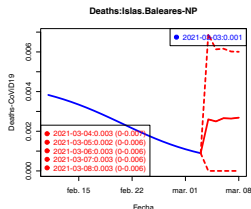
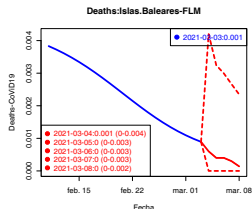
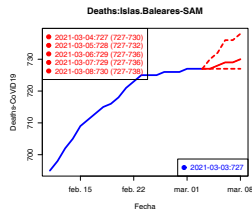
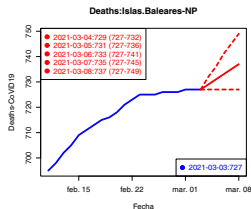
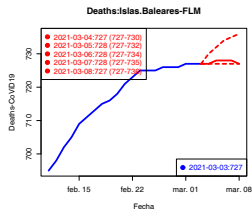
◀ Fallecidos

Fallecidos: Asturias



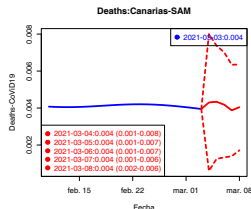
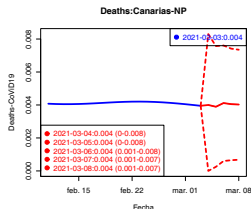
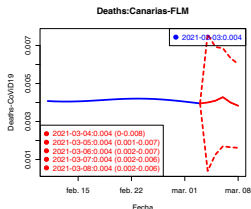
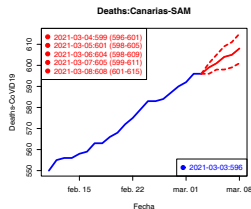
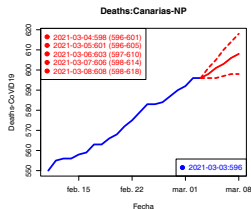
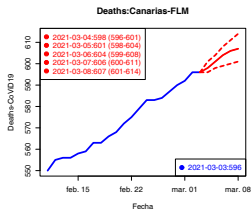
Los valores del Ratio de incremento de H2–H5 están rescalados a H1 para su comparación gráfica.

Fallecidos: Islas Baleares



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

Fallecidos: Canarias

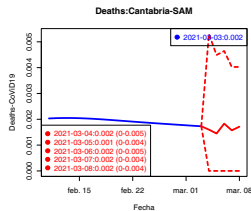
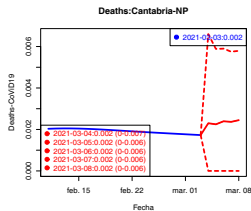
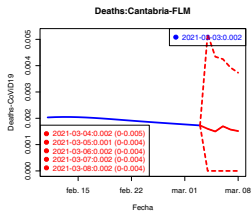
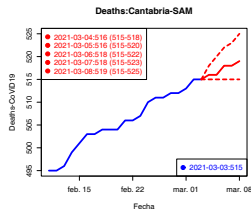
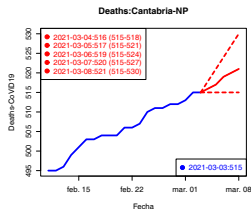
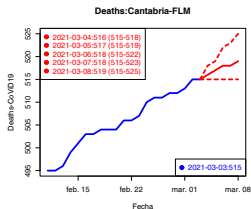


Los valores del Ratio de incremento de H2–H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Fallecidos: Cantabria

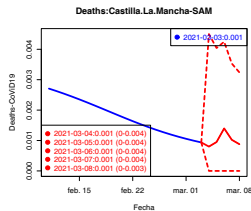
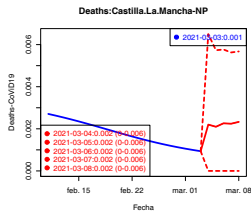
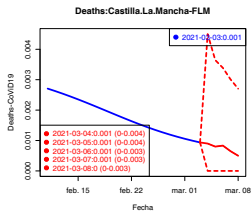
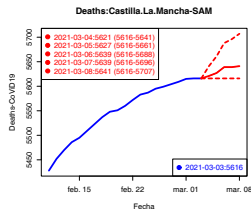
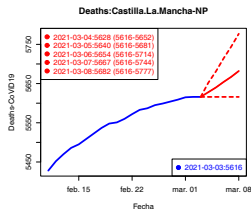
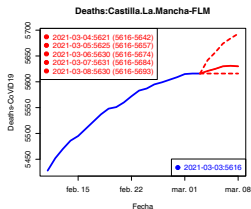


Los valores del Ratio de incremento de H2–H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Fallecidos: Castilla-La Mancha

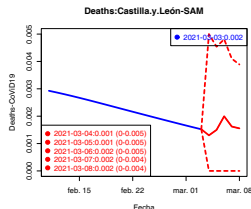
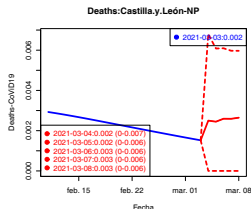
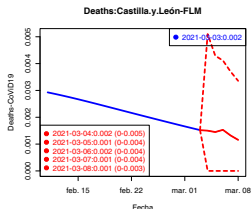
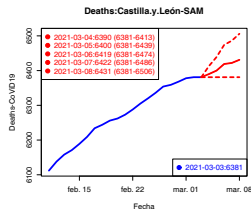
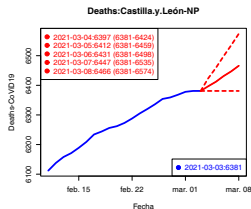
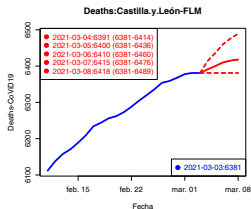


Los valores del Ratio de incremento de H2–H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Fallecidos: Castilla y León

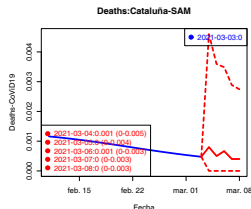
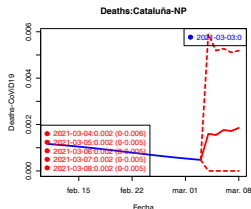
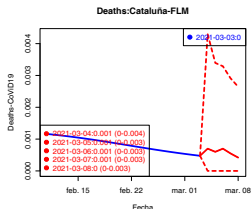
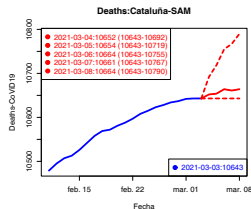
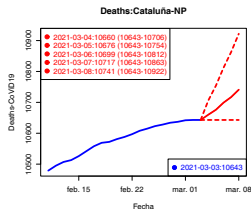
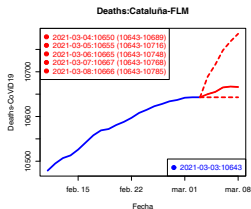


Los valores del Ratio de incremento de H2–H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

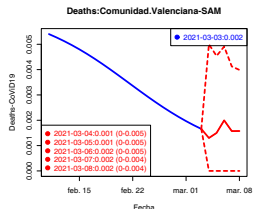
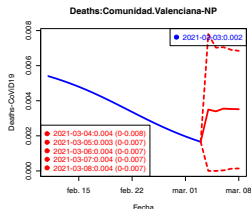
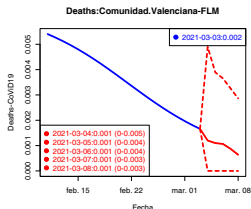
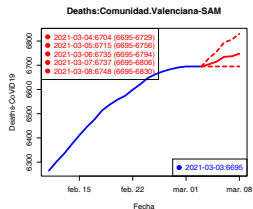
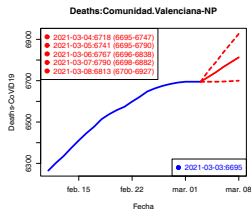
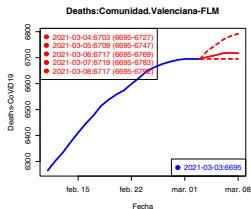
◀ Fallecidos

Fallecidos: Cataluña



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

Fallecidos: C. Valenciana

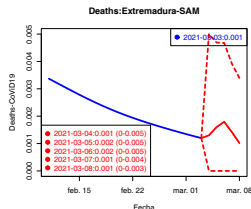
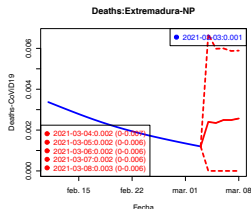
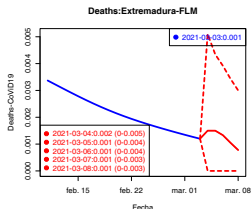
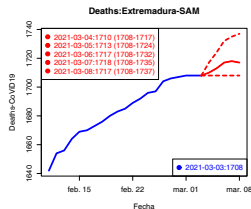
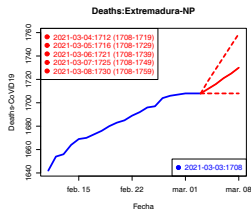
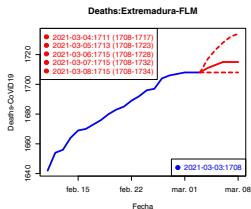


Los valores del Ratio de incremento de H2–H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Fallecidos: Extremadura

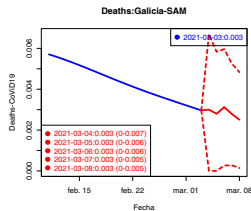
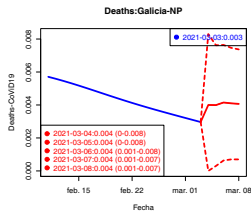
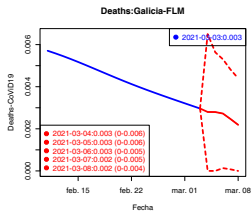
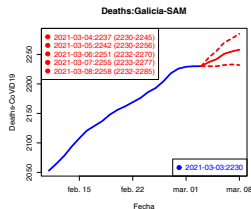
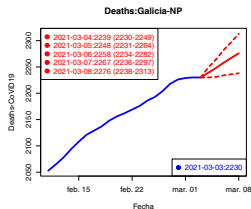
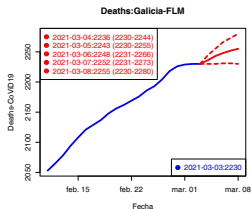


Los valores del Ratio de incremento de H2-H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Fallecidos: Galicia

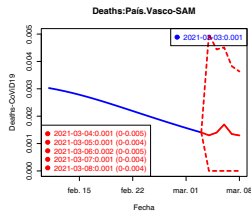
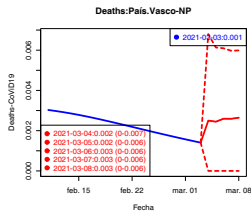
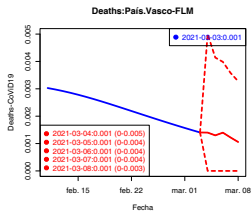
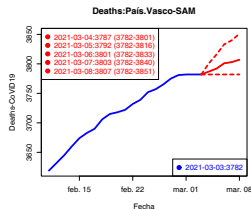
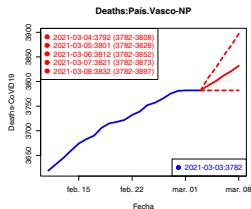
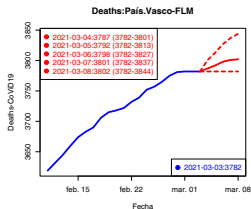


Los valores del Ratio de incremento de H2-H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Fallecidos: País Vasco

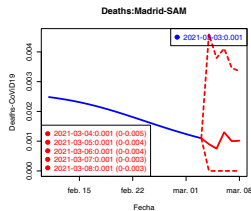
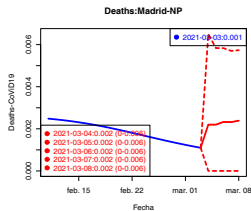
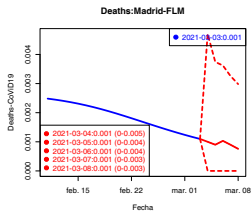
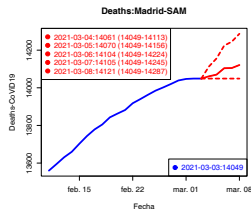
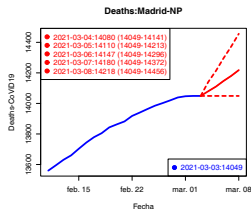
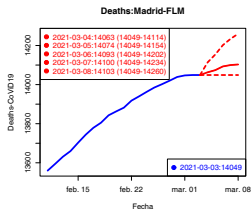


Los valores del Ratio de incremento de H2-H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

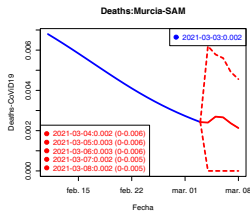
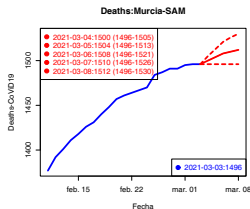
Fallecidos: Madrid



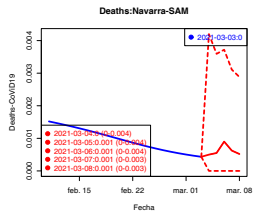
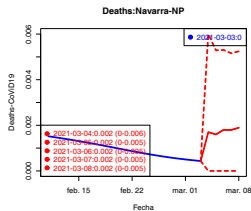
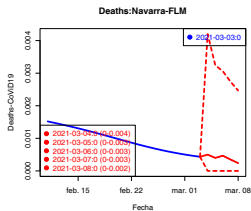
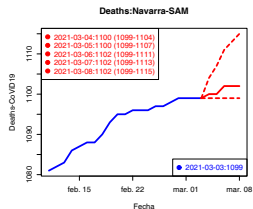
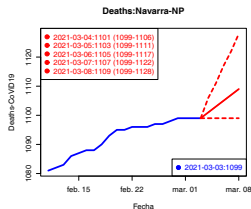
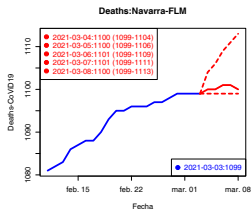
Los valores del Ratio de incremento de H2-H5 están rescalados a H1 para su comparación gráfica.

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

◀ Fallecidos



Fallecidos: Navarra

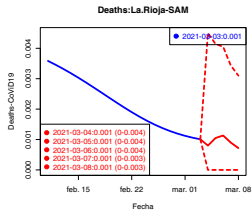
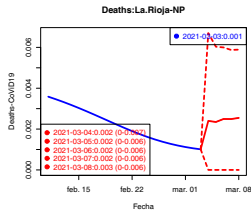
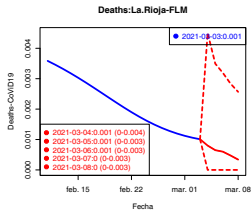
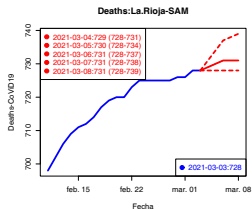
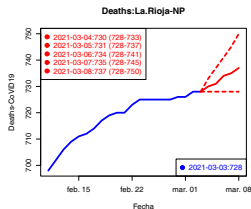
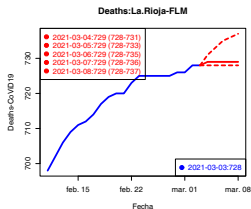


Los valores del Ratio de incremento de H2–H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Fallecidos: La Rioja

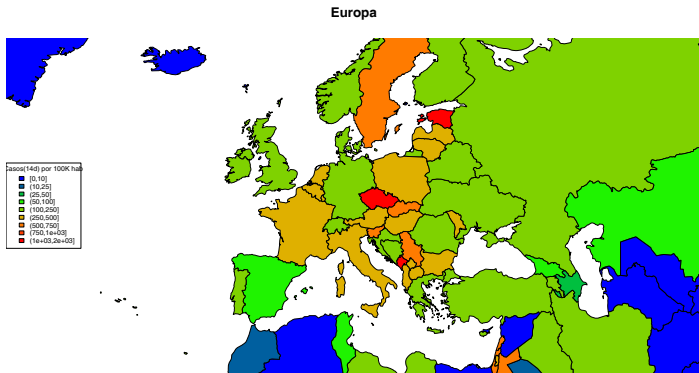


Los valores del Ratio de incremento de H2–H5 están rescalados a H1 para su comparación gráfica.

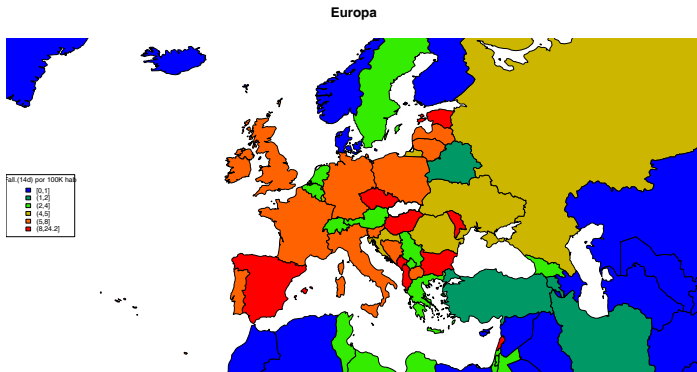
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- 3 Panorama internacional

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

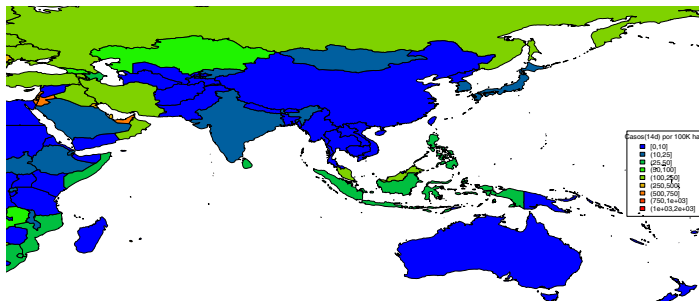


Europa: Fallecidos (14d) por 100K hab.



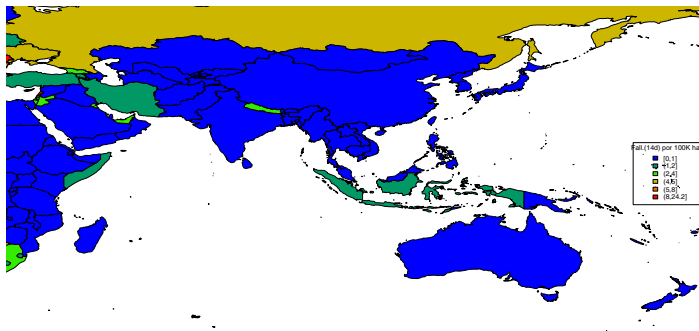
Asia y Oceanía: Incidencia acumulada (14d) por 100K hab.

Asia y Oceanía



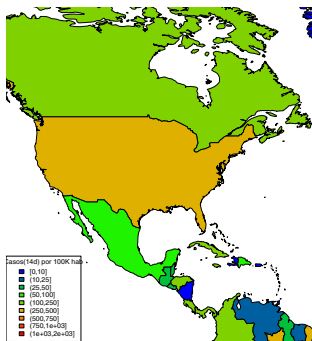
Asia y Oceanía: Fallecidos (14d) por 100K hab.

Asia y Oceanía

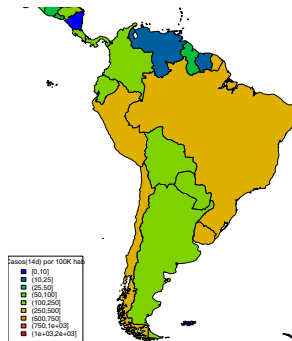


América: Incidencia acumulada (14d) por 100K hab.

América del Norte

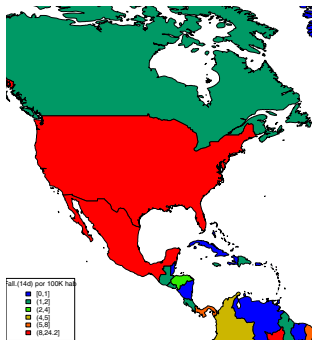


América del sur

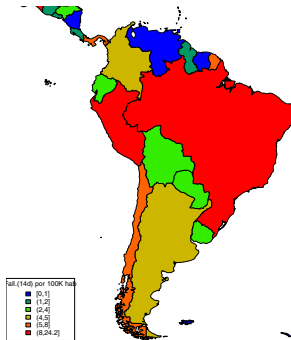


América: Fallecidos (14d) por 100K hab.

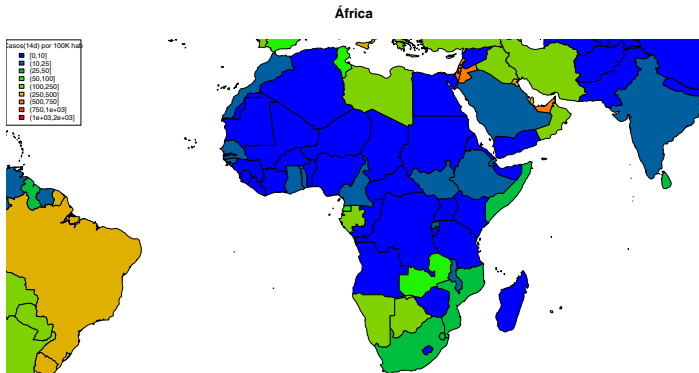
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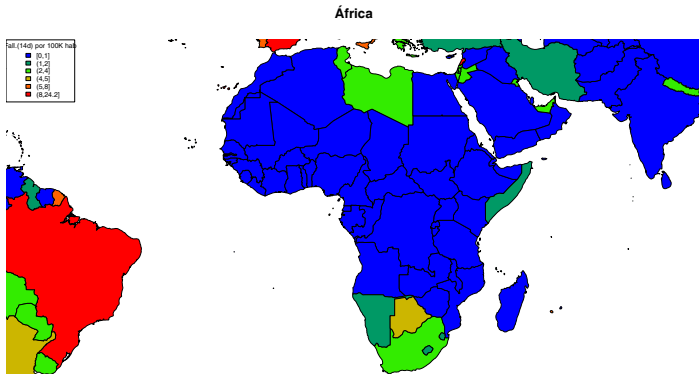
América del sur



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.