

Predicciones sobre CoViD-19

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DEPARTAMENTO DE ESTATÍSTICA,
ANÁLISE MATEMÁTICA E OPTIMIZACIÓN



- Predicciones

- Predicciones Fallecidos

3 Panorama internacional

Datos

Aplicación Shiny:

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

Último dato fichero CCAA: 24/03/2021

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

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

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

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

► Mod Lineal ► Mod NP ► Mod Aditivo

	$10^2 \sigma_R^2$			$10^2 \sigma_R^2(\text{rob.})$			r^2		
Horiz	FLM	NP	SAM	FLM	NP	SAM	FLM	NP	SAM
H1	0.008	0.004	0.008	0.006	0.003	0.006	0.666	0.847	0.69
H4	0.08	0.042	0.075	0.053	0.023	0.054	0.783	0.898	0.796
H8	0.308	0.154	0.289	0.255	0.113	0.257	0.81	0.916	0.822
H12	0.853	0.433	0.796	0.851	0.382	0.854	0.794	0.907	0.807
H15	1.724	0.856	1.615	1.738	0.794	1.748	0.763	0.895	0.777

Tabla Previsión Confirmados: Mod. Lineal.

Last=24/03/2021

	Last	IA14	IA7	H1	H4	H8	H12	H15
España	3247797	114	49	3252681	3267145	3282189	3297503	3310053
Andalucía	499747	104	49	500593	503046	505591	508294	510341
Aragón	109974	114	51	110124	110558	110996	111439	111808
Asturias	46508	124	41	46576	46786	46914	47053	47087
Canarias	45727	114	47	45874	46341	46846	47394	47752
Cantabria	25696	82	33	25735	25853	25990	26122	26249
Castilla.y.León	211048	99	44	211322	212105	212861	213638	214283
Castilla.La.Mancha	174449	65	24	174612	175068	175402	175716	175977
Cataluña	527874	151	61	528732	531366	534024	536743	538799
Ceuta	5010	229	94	5022	5062	5106	5153	5187
Comunidad.Valenciana	384688	23	7	384985	385747	386264	386692	387200
Extremadura	70516	88	38	70611	70904	71199	71502	71746
Galicia	115693	65	25	115842	116284	116661	117049	117323
Islas.Baleares	57277	45	19	57338	57512	57655	57798	57908
La.Rioja	27647	82	41	27680	27776	27875	27973	28060
Madrid	616845	194	86	617950	621292	625450	629545	633377
Melilla	7701	432	144	7720	7784	7847	7912	7959
Murcia	108174	48	20	108282	108574	108808	109036	109236
Navarra	53304	181	100	53428	53804	54270	54773	55180
País.Vasco	159919	181	86	160255	161285	162426	163659	164556

Cuadro: Previsión Confirmados: Mod. Lineal - Horiz. (días).

Last=24/03/2021

	Last	IA14	IA7	H1	H4	H8	H12	H15
España	3247797	114	49	3251797	3263588	3277683	3294660	3307380
Andalucía	499747	104	49	500417	502437	504704	507593	509634
Aragón	109974	114	51	110088	110443	110848	111373	111781
Asturias	46508	124	41	46582	46748	46829	46922	46860
Canarias	45727	114	47	45891	46318	46754	47242	47486
Cantabria	25696	82	33	25728	25821	25963	26105	26231
Castilla.y.León	211048	99	44	211244	211882	212610	213612	214408
Castilla.La.Mancha	174449	65	24	174548	174883	175186	175668	176031
Cataluña	527874	151	61	528699	530897	533273	536001	537701
Ceuta	5010	229	94	5024	5061	5104	5152	5181
Comunidad.Valenciana	384688	23	7	384784	385285	385818	386770	387740
Extremadura	70516	88	38	70597	70844	71142	71544	71834
Galicia	115693	65	25	115817	116166	116497	116934	117192
Islas.Baleares	57277	45	19	57321	57465	57590	57798	57948
La.Rioja	27647	82	41	27670	27750	27846	27983	28096
Madrid	616845	194	86	617767	620471	624660	628947	632748
Melilla	7701	432	144	7727	7788	7855	7923	7963
Murcia	108174	48	20	108232	108450	108672	109023	109322
Navarra	53304	181	100	53416	53773	54227	54825	55290
País.Vasco	159919	181	86	160248	161188	162198	163520	164375

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

Tabla Ratio Incr. Confirmados: Mod. Lineal.

Last=24/03/2021

	Last	H1	H4	H8	H12	H15
España	0.0010	0.0015	0.0060	0.0106	0.0153	0.0192
Andalucía	0.0012	0.0017	0.0066	0.0117	0.0171	0.0212
Aragón	0.0009	0.0014	0.0053	0.0093	0.0133	0.0167
Asturias	0.0013	0.0015	0.0060	0.0087	0.0117	0.0125
Canarias	0.0033	0.0032	0.0134	0.0245	0.0365	0.0443
Cantabria	0.0012	0.0015	0.0061	0.0115	0.0166	0.0215
Castilla.y.León	0.0007	0.0013	0.0050	0.0086	0.0123	0.0153
Castilla.La.Mancha	0.0004	0.0009	0.0036	0.0055	0.0073	0.0088
Cataluña	0.0013	0.0016	0.0066	0.0117	0.0168	0.0207
Ceuta	0.0023	0.0024	0.0104	0.0192	0.0285	0.0354
Comunidad.Valenciana	0.0002	0.0008	0.0028	0.0041	0.0052	0.0065
Extremadura	0.0008	0.0014	0.0055	0.0097	0.0140	0.0174
Galicia	0.0008	0.0013	0.0051	0.0084	0.0117	0.0141
Islas.Baleares	0.0005	0.0011	0.0041	0.0066	0.0091	0.0110
La.Rioja	0.0007	0.0012	0.0047	0.0083	0.0118	0.0149
Madrid	0.0014	0.0018	0.0072	0.0140	0.0206	0.0268
Melilla	0.0027	0.0025	0.0108	0.0189	0.0274	0.0335
Murcia	0.0004	0.0010	0.0037	0.0059	0.0080	0.0098
Navarra	0.0017	0.0023	0.0094	0.0181	0.0276	0.0352
País.Vasco	0.0017	0.0021	0.0085	0.0157	0.0234	0.0290

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

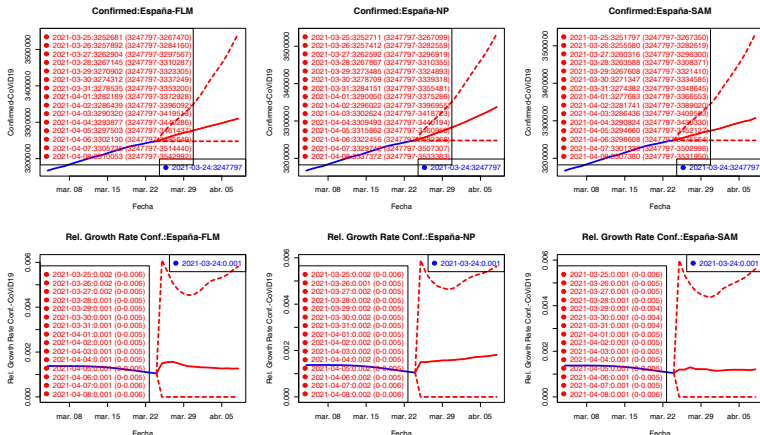
Tabla Ratio Incr. Confirmados: Mod. Aditivo.

Last=24/03/2021

	Last	H1	H4	H8	H12	H15
España	0.0010	0.0012	0.0049	0.0092	0.0144	0.0183
Andalucía	0.0012	0.0013	0.0054	0.0099	0.0157	0.0198
Aragón	0.0009	0.0010	0.0043	0.0080	0.0127	0.0164
Asturias	0.0013	0.0016	0.0052	0.0069	0.0089	0.0076
Canarias	0.0033	0.0036	0.0129	0.0225	0.0331	0.0385
Cantabria	0.0012	0.0013	0.0049	0.0104	0.0159	0.0208
Castilla.y.León	0.0007	0.0009	0.0040	0.0074	0.0121	0.0159
Castilla.La.Mancha	0.0004	0.0006	0.0025	0.0042	0.0070	0.0091
Cataluña	0.0013	0.0016	0.0057	0.0102	0.0154	0.0186
Ceuta	0.0023	0.0029	0.0102	0.0188	0.0284	0.0342
Comunidad.Valenciana	0.0002	0.0002	0.0016	0.0029	0.0054	0.0079
Extremadura	0.0008	0.0011	0.0046	0.0089	0.0146	0.0187
Galicia	0.0008	0.0011	0.0041	0.0070	0.0107	0.0130
Islas.Baleares	0.0005	0.0008	0.0033	0.0055	0.0091	0.0117
La.Rioja	0.0007	0.0008	0.0037	0.0072	0.0121	0.0162
Madrid	0.0014	0.0015	0.0059	0.0127	0.0196	0.0258
Melilla	0.0027	0.0033	0.0113	0.0201	0.0288	0.0340
Murcia	0.0004	0.0005	0.0025	0.0046	0.0079	0.0106
Navarra	0.0017	0.0021	0.0088	0.0173	0.0285	0.0373
País.Vasco	0.0017	0.0021	0.0079	0.0143	0.0225	0.0279

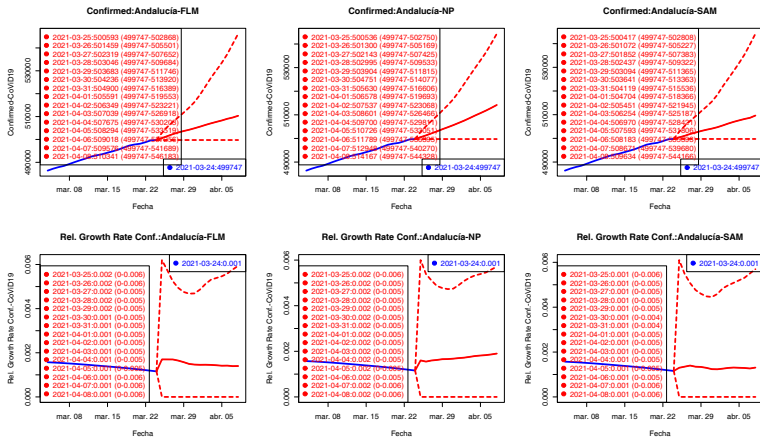
Cuadro: Previsión Ratio Incr. Confirmados: Mod. Aditivo - Horiz. (días).

Confirmados: España



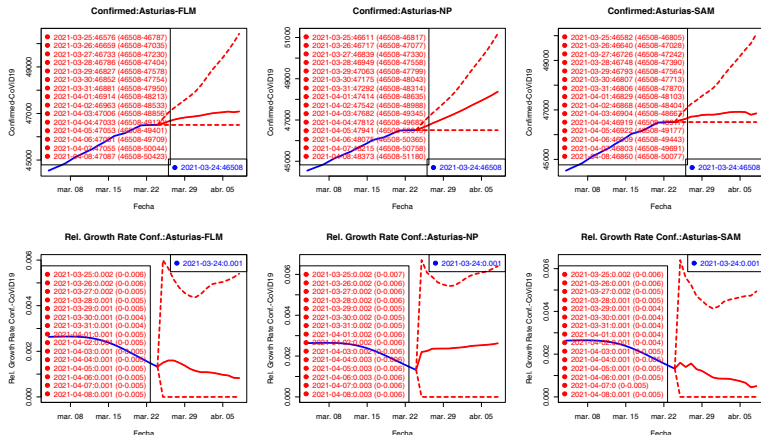
Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

Confirmados: Andalucía



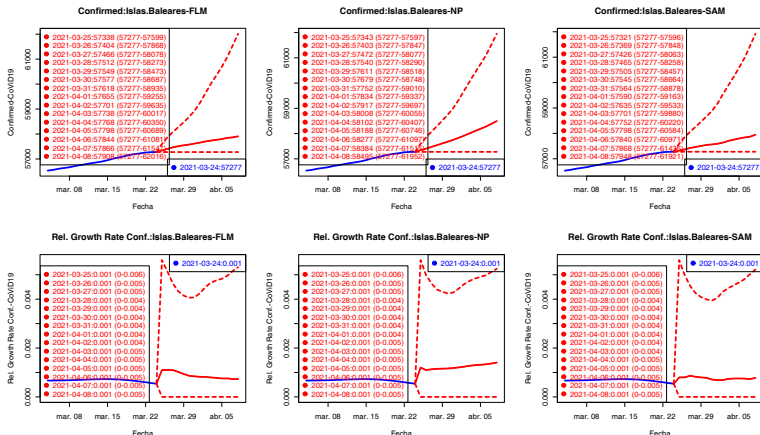
Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

Confirmados: Asturias



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

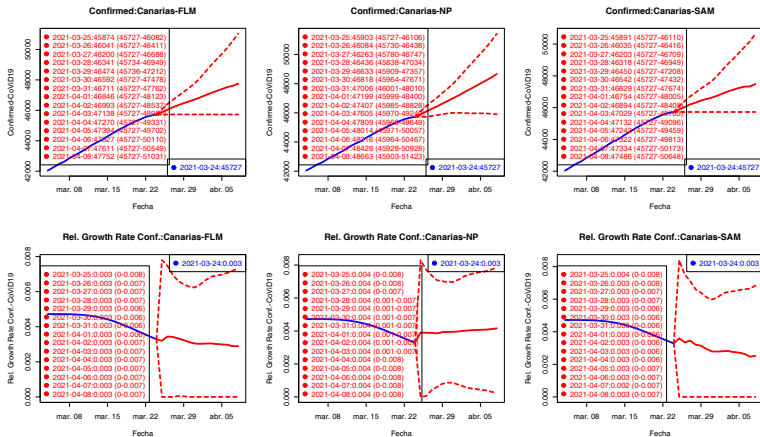
Confirmados: Islas Baleares



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

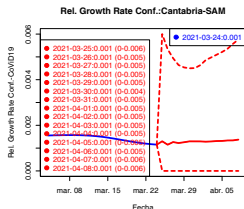
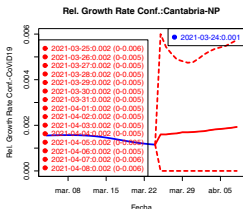
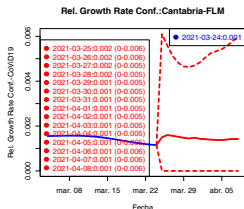
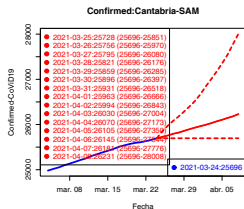
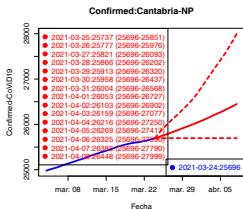
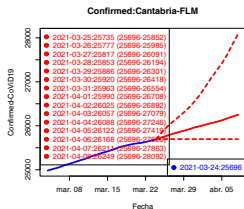
◀ Confirmados ▶ Fallecidos

Confirmados: Canarias



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

Confirmados: Cantabria



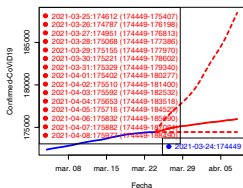
Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

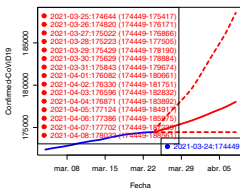
◀ Fallecidos

Confirmados: Castilla-La Mancha

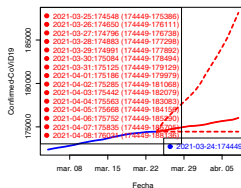
Confirmed:Castilla.La.Mancha-FLM



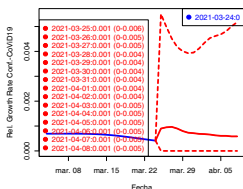
Confirmed:Castilla.La.Mancha-NP



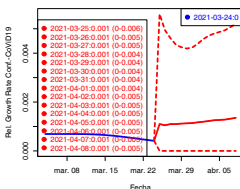
Confirmed:Castilla.La.Mancha-SAM



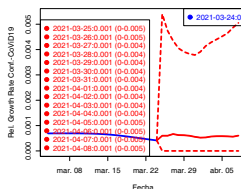
Rel. Growth Rate Conf.:Castilla.La.Mancha-FLM



Rel. Growth Rate Conf.:Castilla.La.Mancha-NP



Rel. Growth Rate Conf.:Castilla.La.Mancha-SAM

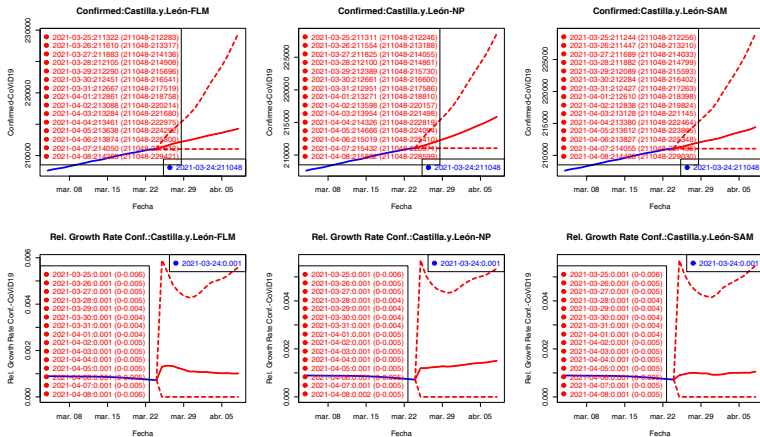


Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

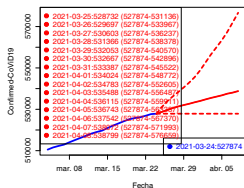
Confirmados: Castilla y León



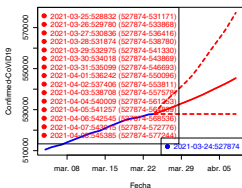
Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

Confirmados: Cataluña

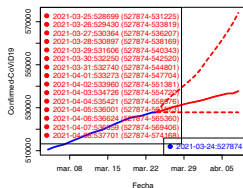
Confirmed:Cataluña-FLM



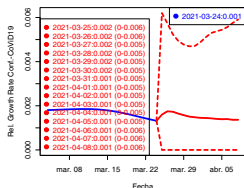
Confirmed:Cataluña-NP



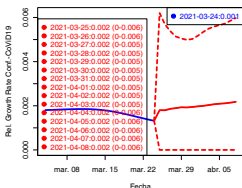
Confirmed:Cataluña-SAM



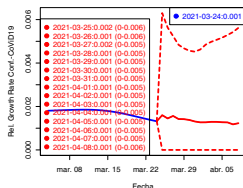
Rel. Growth Rate Conf.:Cataluña-FLM



Rel. Growth Rate Conf.:Cataluña-NP



Rel. Growth Rate Conf.:Cataluña-SAM

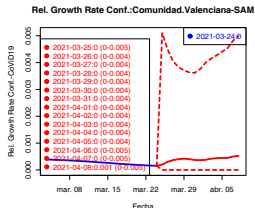
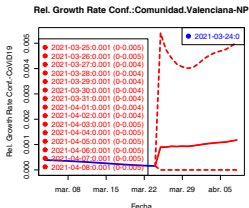
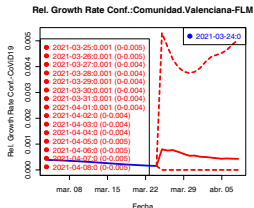
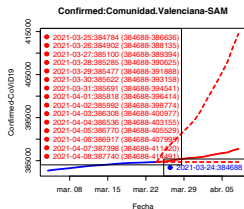
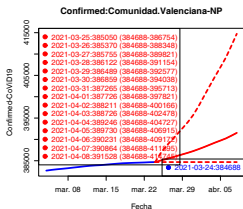
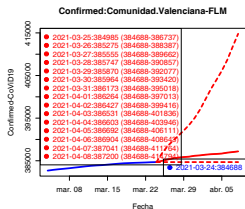


Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

← Confirmados

← Fallecidos

Confirmados: C. Valenciana



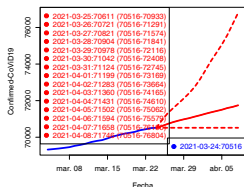
Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

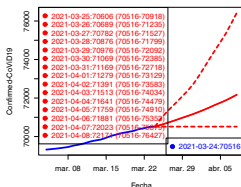
◀ Fallecidos

Confirmados: Extremadura

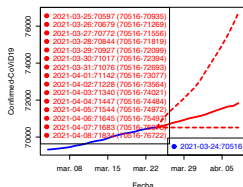
Confirmed:Extremadura-FLM



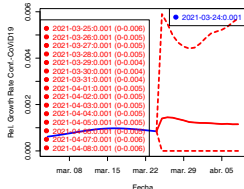
Confirmed:Extremadura-NP



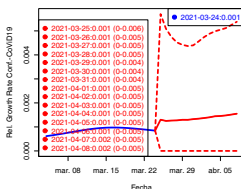
Confirmed:Extremadura-SAM



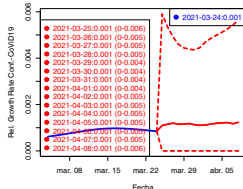
Rel. Growth Rate Conf.:Extremadura-FLM



Rel. Growth Rate Conf.:Extremadura-NP



Rel. Growth Rate Conf.:Extremadura-SAM

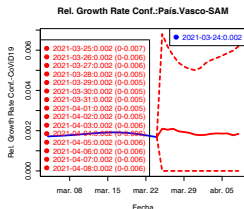
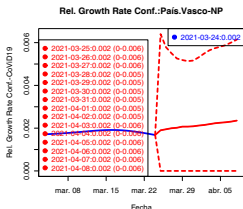
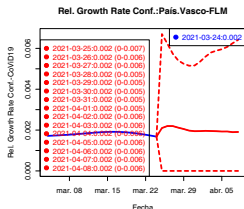
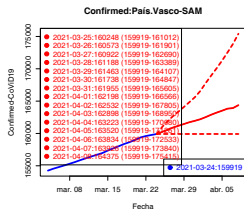
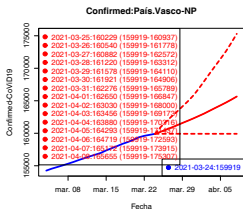
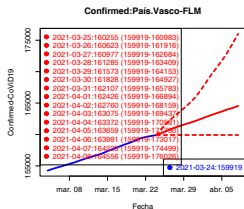


Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

← Confirmados

← Fallecidos

Confirmados: País Vasco

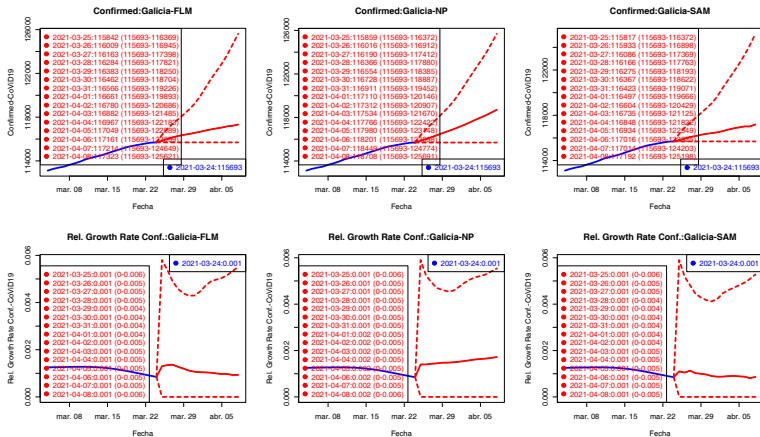


Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Confirmados: Galicia

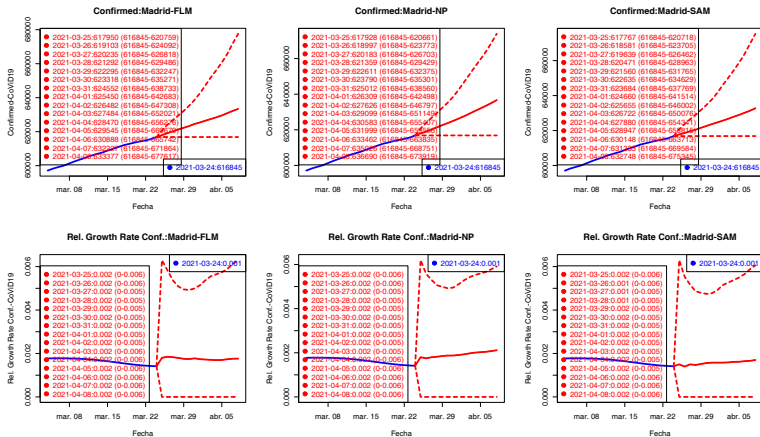


Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

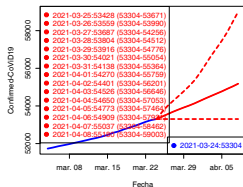
Confirmados: Madrid



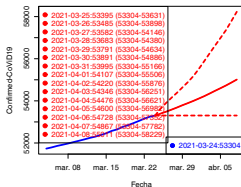
Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

Confirmados: Navarra

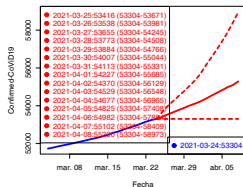
Confirmed:Navarra-FLM



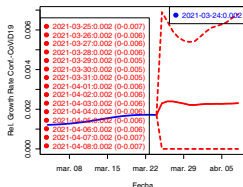
Confirmed:Navarra-NP



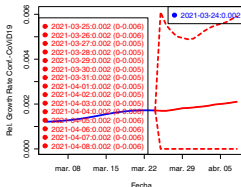
Confirmed:Navarra-SAM



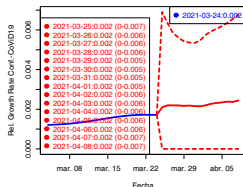
Rel. Growth Rate Conf.:Navarra-FLM



Rel. Growth Rate Conf.:Navarra-NP



Rel. Growth Rate Conf.:Navarra-SAM

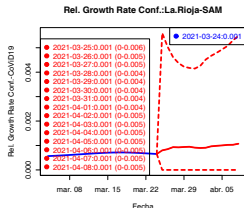
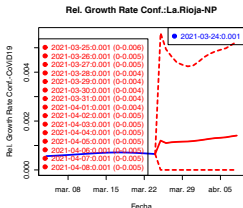
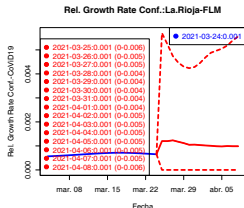
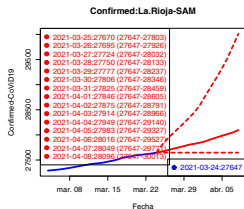
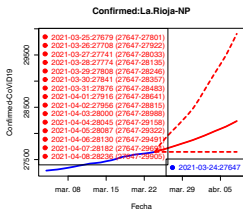
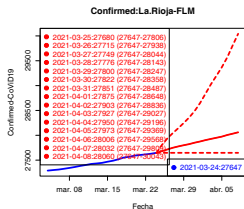


Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Confirmados: La Rioja



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

◀ Confirmados

◀ Fallecidos

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 - Predicciones
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 - Predicciones Fallecidos
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Modelos para fallecidos por CoViD-19

Último dato: 24/03/2021 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	0.002	0.002	0.002	0.002	0.001	0.002	0.71	0.735	0.746
H4	0.028	0.028	0.027	0.011	0.011	0.01	0.778	0.786	0.787
H8	0.071	0.072	0.064	0.042	0.045	0.036	0.855	0.856	0.869
H12	0.167	0.171	0.144	0.115	0.126	0.105	0.857	0.858	0.876
H15	0.242	0.258	0.2	0.195	0.22	0.17	0.869	0.864	0.891

Tabla Previsión Fallecidos: Mod. No Paramétrico.

Last=24/03/2021

	Last	H1	H4	H8	H12	H15
España	74022	74114	74368	74892	75397	75799
Andalucía	9051	9069	9118	9200	9289	9356
Aragón	3347	3351	3363	3387	3410	3428
Asturias	1877	1880	1888	1903	1919	1931
Canarias	650	652	660	670	681	689
Cantabria	537	538	540	544	549	552
Castilla.y.León	6539	6547	6570	6617	6663	6699
Castilla.La.Mancha	5708	5713	5729	5763	5794	5820
Cataluña	12418	12429	12463	12536	12600	12655
Ceuta	93	93	94	96	98	99
Comunidad.Valenciana	7028	7035	7056	7101	7143	7177
Extremadura	1737	1739	1743	1754	1763	1770
Galicia	2309	2313	2323	2341	2361	2376
Islas.Baleares	777	778	780	785	789	793
La.Rioja	742	743	745	750	755	759
Madrid	14530	14548	14599	14702	14802	14882
Melilla	78	78	79	80	82	83
Murcia	1553	1555	1560	1570	1580	1588
Navarra	1116	1117	1120	1127	1133	1139
País.Vasco	3932	3937	3952	3981	4010	4033

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

Tabla Previsión Fallecidos: Mod. Aditivo.

Last=24/03/2021

	Last	H1	H4	H8	H12	H15
España	74022	74079	74173	74522	74774	74915
Andalucía	9051	9064	9093	9155	9211	9245
Aragón	3347	3350	3357	3377	3391	3400
Asturias	1877	1879	1885	1891	1897	1898
Canarias	650	653	660	667	676	680
Cantabria	537	537	537	538	540	540
Castilla.y.León	6539	6545	6556	6598	6630	6649
Castilla.La.Mancha	5708	5711	5711	5736	5755	5761
Cataluña	12418	12421	12421	12440	12443	12439
Ceuta	93	93	95	96	98	99
Comunidad.Valenciana	7028	7031	7029	7067	7097	7106
Extremadura	1737	1738	1737	1744	1749	1752
Galicia	2309	2312	2318	2335	2348	2356
Islas.Baleares	777	777	777	781	783	784
La.Rioja	742	743	744	750	754	757
Madrid	14530	14540	14560	14620	14655	14679
Melilla	78	78	79	80	81	81
Murcia	1553	1554	1553	1560	1568	1569
Navarra	1116	1117	1118	1123	1127	1130
País.Vasco	3932	3935	3940	3954	3965	3972

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

Tabla Ratio Incr. Fallecidos: Mod. Lineal.

Last=24/03/2021

	Last	H1	H4	H8	H12	H15
España	0.0007	0.0009	0.0027	0.0036	0.0035	0.0030
Andalucía	0.0012	0.0014	0.0043	0.0062	0.0072	0.0072
Aragón	0.0008	0.0011	0.0037	0.0052	0.0062	0.0062
Asturias	0.0013	0.0016	0.0054	0.0083	0.0106	0.0113
Canarias	0.0037	0.0042	0.0157	0.0276	0.0416	0.0496
Cantabria	0.0006	0.0007	0.0012	0.0007	0.0000	0.0000
Castilla.y.León	0.0008	0.0010	0.0032	0.0044	0.0048	0.0046
Castilla.La.Mancha	0.0004	0.0007	0.0019	0.0018	0.0011	0.0000
Cataluña	0.0003	0.0006	0.0015	0.0014	0.0000	0.0000
Ceuta	0.0053	0.0063	0.0246	0.0465	0.0757	0.0945
Comunidad.Valenciana	0.0004	0.0005	0.0010	0.0001	0.0000	0.0000
Extremadura	0.0003	0.0005	0.0011	0.0011	0.0000	0.0000
Galicia	0.0012	0.0013	0.0043	0.0069	0.0084	0.0092
Islas.Baleares	0.0003	0.0007	0.0014	0.0003	0.0000	0.0000
La.Rioja	0.0009	0.0009	0.0033	0.0058	0.0070	0.0081
Madrid	0.0007	0.0009	0.0028	0.0040	0.0042	0.0040
Melilla	0.0032	0.0030	0.0123	0.0220	0.0299	0.0345
Murcia	0.0005	0.0007	0.0015	0.0010	0.0000	0.0000
Navarra	0.0004	0.0008	0.0025	0.0040	0.0045	0.0050
País.Vasco	0.0005	0.0008	0.0018	0.0020	0.0004	0.0000

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

Tabla Ratio Incr. Fallecidos: Mod. No Paramétrico.

Last=24/03/2021

	Last	H1	H4	H8	H12	H15
España	0.0007	0.0012	0.0047	0.0118	0.0186	0.0240
Andalucía	0.0012	0.0020	0.0074	0.0165	0.0263	0.0337
Aragón	0.0008	0.0013	0.0047	0.0119	0.0187	0.0243
Asturias	0.0013	0.0016	0.0059	0.0140	0.0223	0.0288
Canarias	0.0037	0.0038	0.0158	0.0313	0.0476	0.0602
Cantabria	0.0006	0.0015	0.0056	0.0134	0.0215	0.0275
Castilla.y.León	0.0008	0.0013	0.0048	0.0120	0.0189	0.0245
Castilla.La.Mancha	0.0004	0.0009	0.0037	0.0097	0.0151	0.0195
Cataluña	0.0003	0.0009	0.0036	0.0095	0.0147	0.0191
Ceuta	0.0053	0.0038	0.0158	0.0328	0.0509	0.0652
Comunidad.Valenciana	0.0004	0.0010	0.0040	0.0105	0.0164	0.0212
Extremadura	0.0003	0.0009	0.0036	0.0095	0.0147	0.0191
Galicia	0.0012	0.0016	0.0059	0.0141	0.0224	0.0289
Islas.Baleares	0.0003	0.0010	0.0039	0.0101	0.0157	0.0203
La.Rioja	0.0009	0.0012	0.0045	0.0114	0.0180	0.0233
Madrid	0.0007	0.0013	0.0047	0.0118	0.0187	0.0242
Melilla	0.0032	0.0038	0.0161	0.0315	0.0478	0.0603
Murcia	0.0005	0.0011	0.0044	0.0111	0.0176	0.0226
Navarra	0.0004	0.0010	0.0038	0.0100	0.0156	0.0202
País.Vasco	0.0005	0.0014	0.0051	0.0125	0.0199	0.0256

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

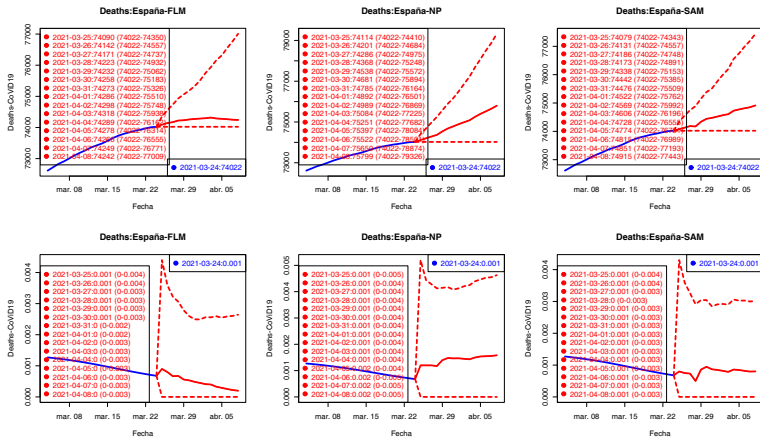
Tabla Ratio Incr. Fallecidos: Mod. Aditivo.

Last=24/03/2021

	Last	H1	H4	H8	H12	H15
España	0.0007	0.0008	0.0020	0.0068	0.0102	0.0121
Andalucía	0.0012	0.0015	0.0047	0.0115	0.0177	0.0214
Aragón	0.0008	0.0010	0.0030	0.0090	0.0132	0.0159
Asturias	0.0013	0.0010	0.0041	0.0077	0.0105	0.0113
Canarias	0.0037	0.0039	0.0154	0.0260	0.0392	0.0467
Cantabria	0.0006	0.0005	0.0001	0.0026	0.0064	0.0063
Castilla.y.León	0.0008	0.0010	0.0026	0.0091	0.0139	0.0169
Castilla.La.Mancha	0.0004	0.0005	0.0005	0.0049	0.0083	0.0092
Cataluña	0.0003	0.0002	0.0002	0.0017	0.0020	0.0017
Ceuta	0.0053	0.0043	0.0196	0.0302	0.0551	0.0629
Comunidad.Valenciana	0.0004	0.0004	0.0002	0.0056	0.0098	0.0111
Extremadura	0.0003	0.0003	0.0000	0.0041	0.0072	0.0087
Galicia	0.0012	0.0012	0.0039	0.0111	0.0168	0.0204
Islas.Baleares	0.0003	0.0005	0.0005	0.0046	0.0080	0.0092
La.Rioja	0.0009	0.0009	0.0025	0.0102	0.0160	0.0199
Madrid	0.0007	0.0007	0.0021	0.0062	0.0086	0.0102
Melilla	0.0032	0.0032	0.0151	0.0248	0.0358	0.0427
Murcia	0.0005	0.0005	0.0003	0.0043	0.0095	0.0102
Navarra	0.0004	0.0007	0.0018	0.0065	0.0094	0.0125
País.Vasco	0.0005	0.0007	0.0020	0.0057	0.0083	0.0102

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

Fallecidos: España

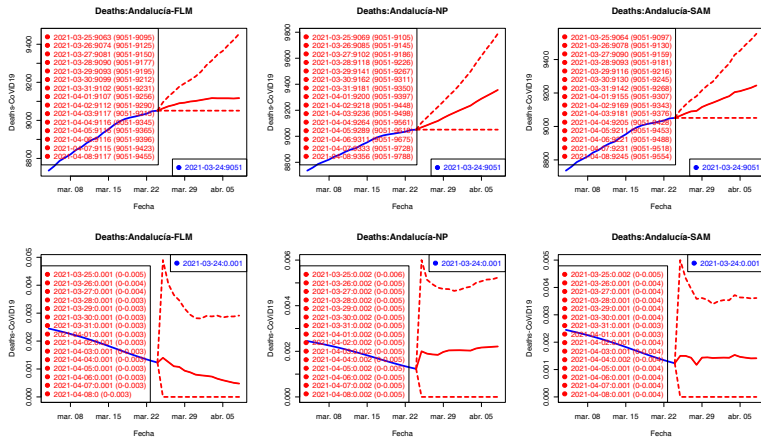


Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Fallecidos: Andalucía

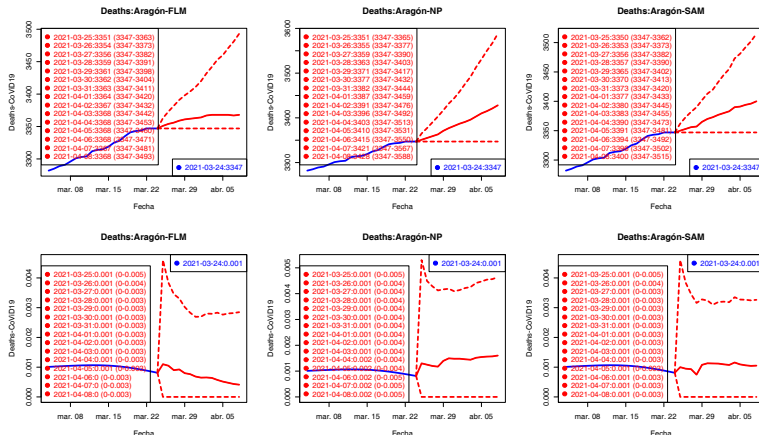


Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Fallecidos: Aragón

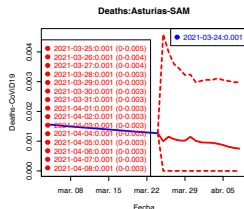
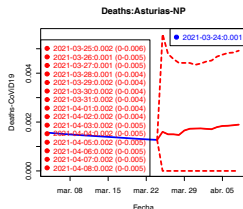
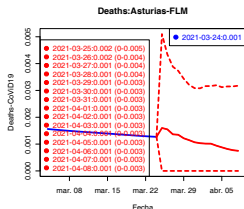
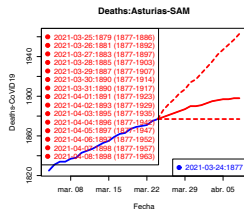
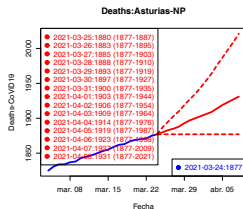
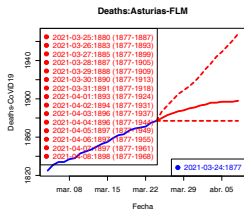


Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

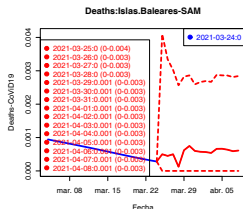
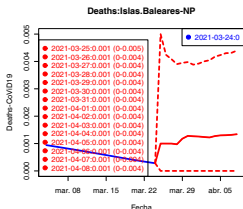
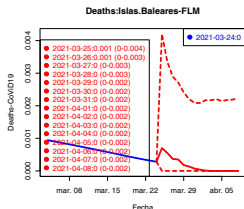
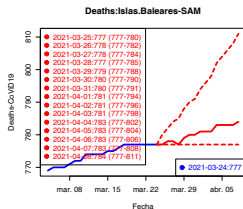
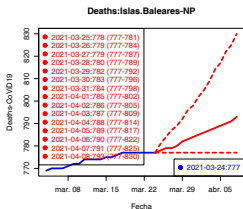
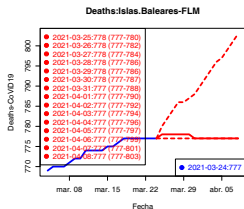
◀ Fallecidos

Fallecidos: Asturias



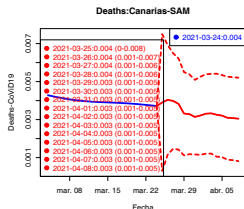
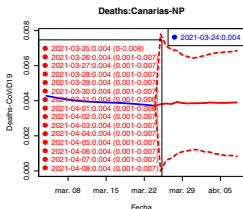
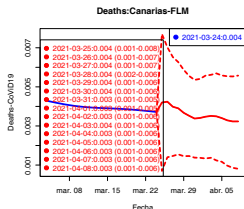
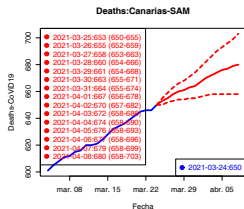
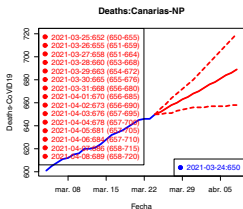
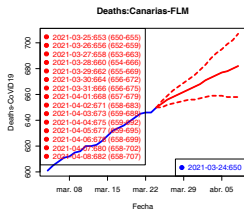
Los valores del Ratio de incremento de H2–H15 están rescalados a H1 para su comparación gráfica.

Fallecidos: Islas Baleares



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

Fallecidos: Canarias

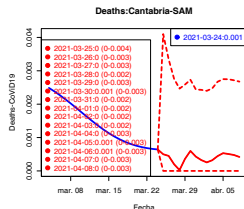
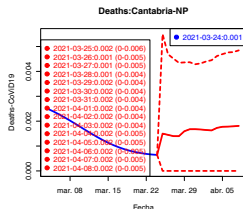
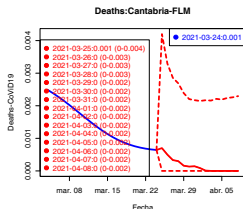
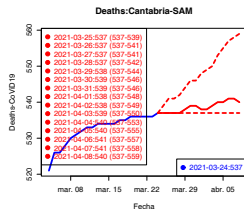
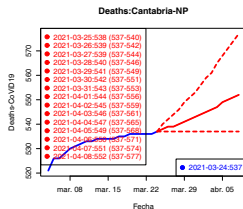
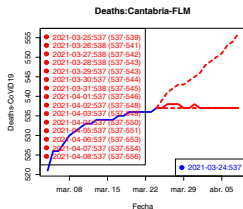


Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

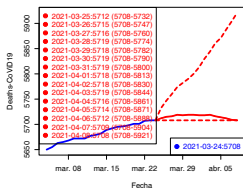
Fallecidos: Cantabria



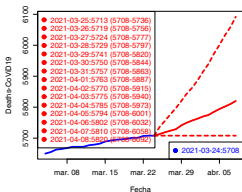
Los valores del Ratio de incremento de H2–H15 están rescalados a H1 para su comparación gráfica.

Fallecidos: Castilla-La Mancha

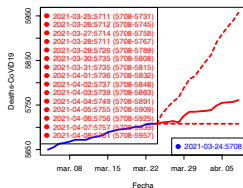
Deaths:Castilla.La.Mancha-FLM



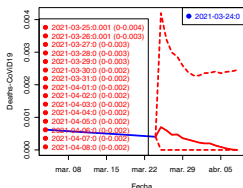
Deaths:Castilla.La.Mancha-NP



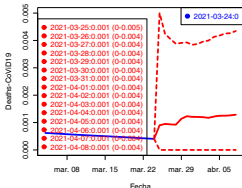
Deaths:Castilla.La.Mancha-SAM



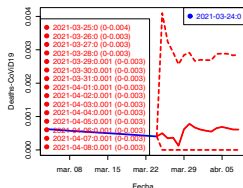
Deaths:Castilla.La.Mancha-FLM



Deaths:Castilla.La.Mancha-NP



Deaths:Castilla.La.Mancha-SAM

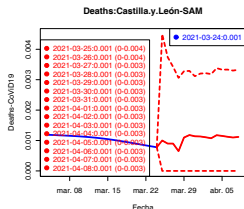
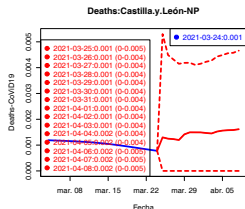
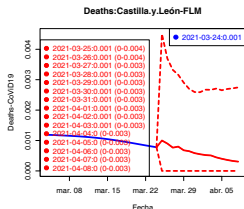
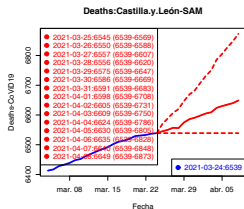
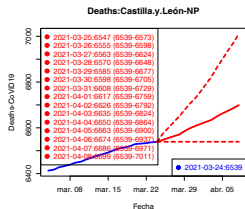
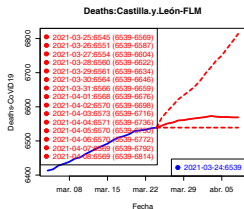


Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Fallecidos: Castilla y León

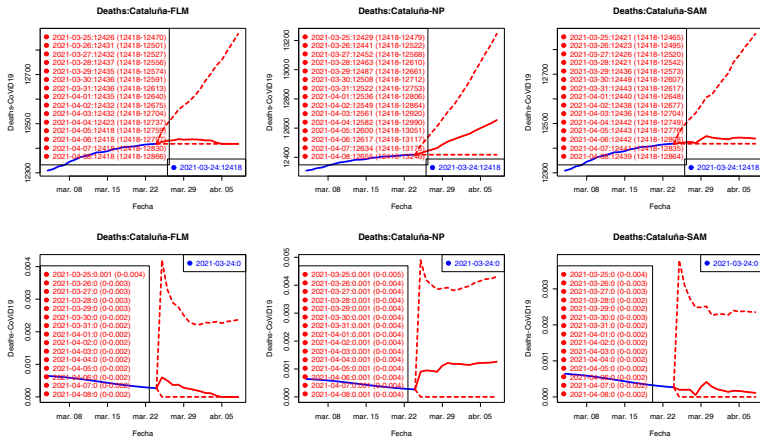


Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

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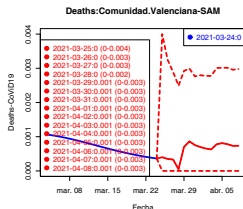
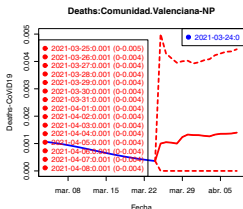
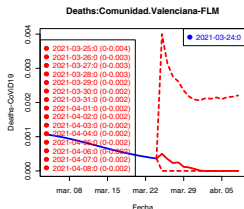
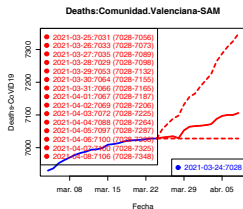
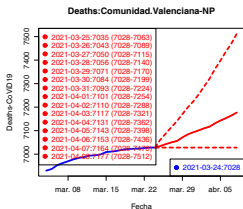
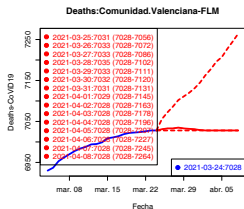


Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Fallecidos: C. Valenciana

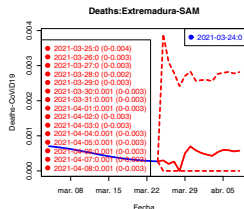
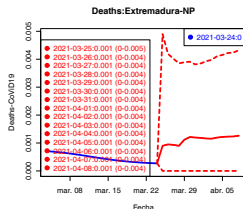
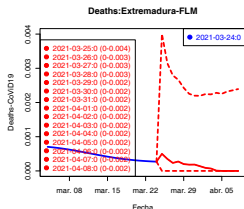
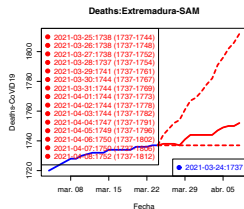
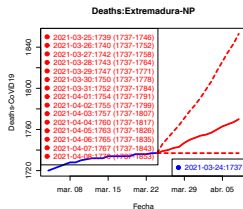
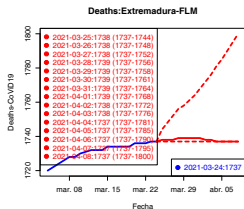


Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Fallecidos: Extremadura

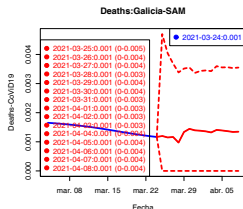
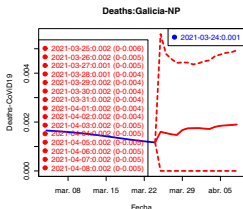
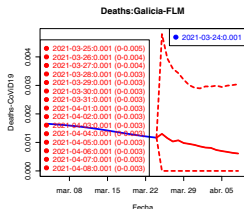
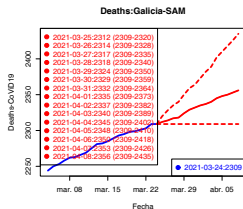
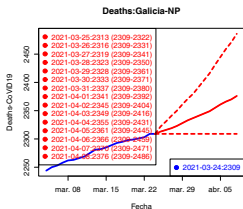
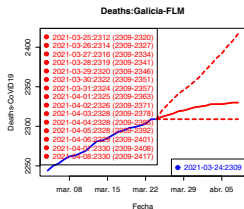


Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

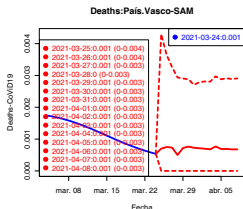
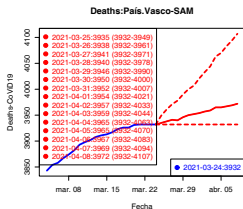
◀ Fallecidos

Fallecidos: Galicia



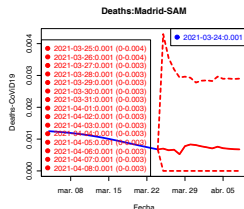
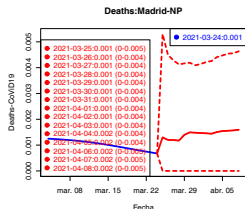
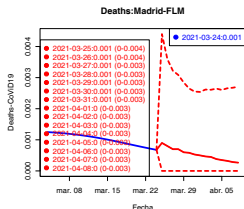
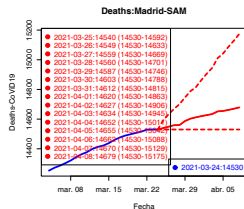
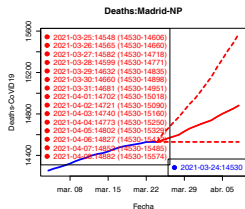
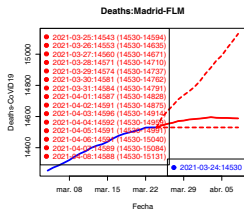
Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados ▶ Fallecidos



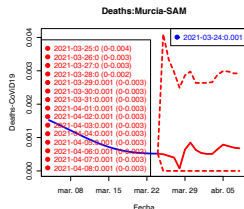
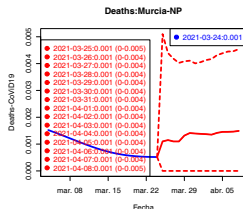
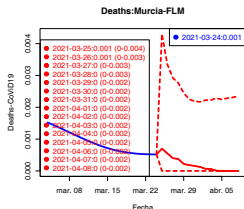
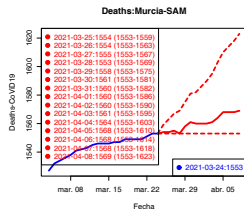
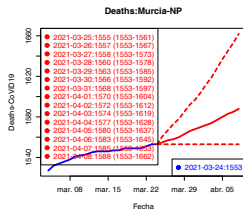
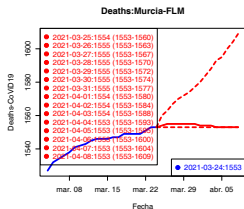
◀ Confirmados ◀ Fallecidos

Fallecidos: Madrid



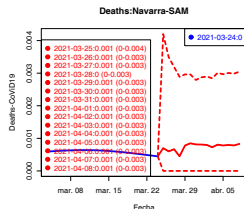
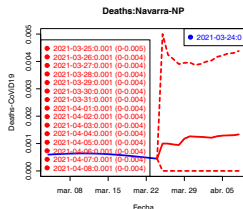
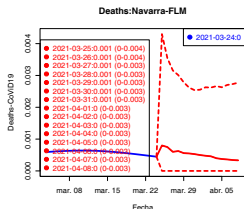
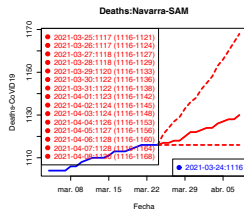
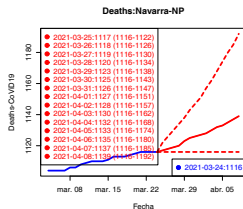
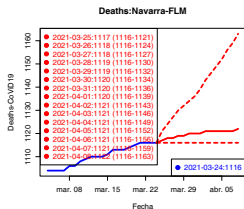
Los valores del Ratio de incremento de H2–H15 están rescalados a H1 para su comparación gráfica.

Fallecidos: Murcia



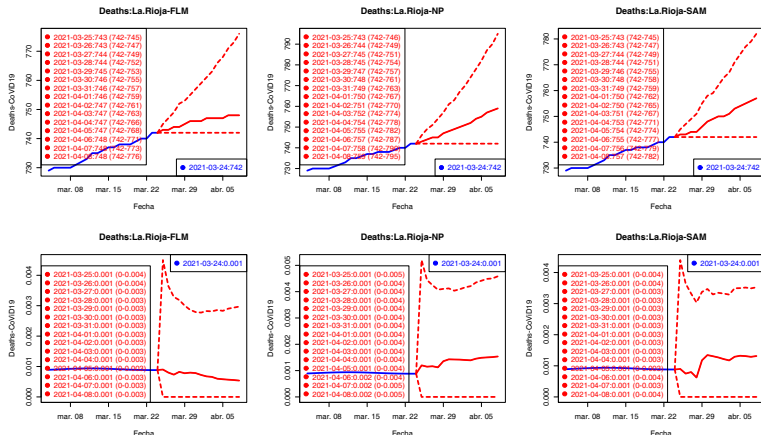
Los valores del Ratio de incremento de H2–H15 están rescalados a H1 para su comparación gráfica.

Fallecidos: Navarra



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

Fallecidos: La Rioja



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

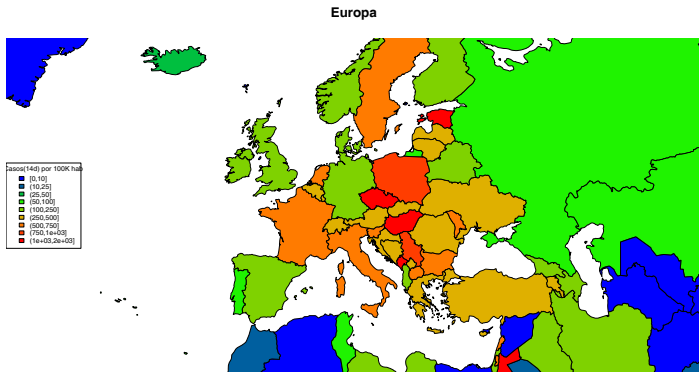
◀ Confirmados

◀ Fallecidos

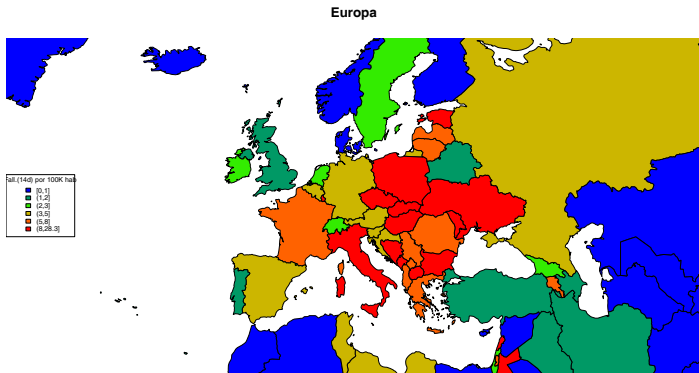
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Europa: Incidencia Acumulada (14d) por 100K hab.

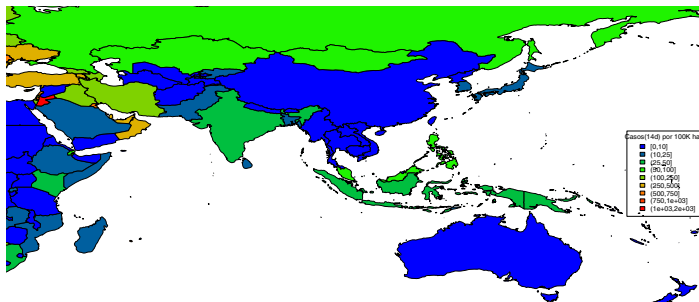


Europa: Fallecidos (14d) por 100K hab.



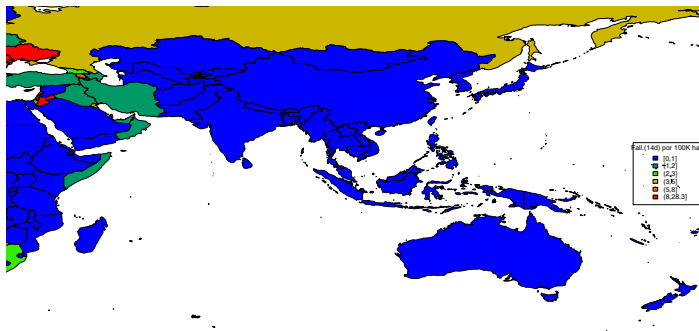
Asia y Oceanía: Incidencia acumulada (14d) por 100K hab.

Asia y Oceanía



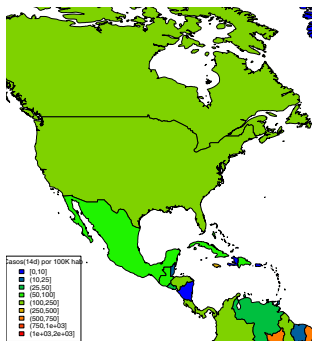
Asia y Oceanía: Fallecidos (14d) por 100K hab.

Asia y Oceanía

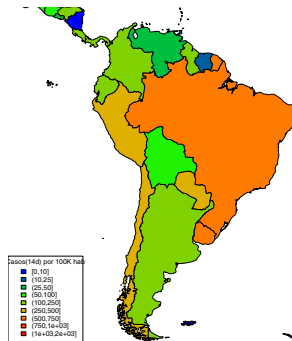


América: Incidencia acumulada (14d) por 100K hab.

América del Norte

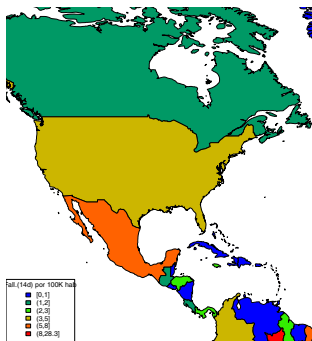


América del sur

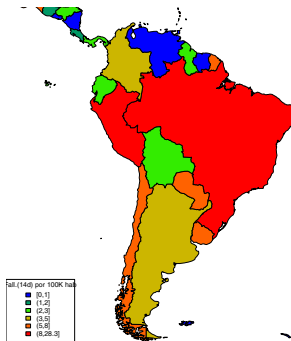


América: Fallecidos (14d) por 100K hab.

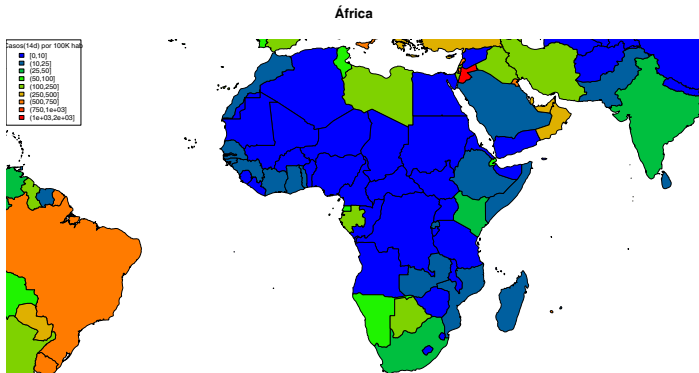
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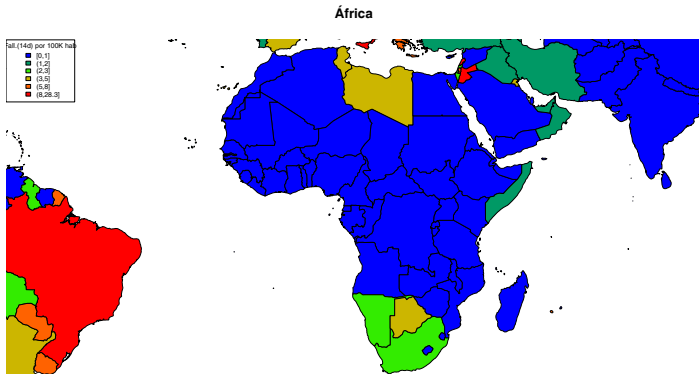
América del sur



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.