

Predicciones sobre CoViD-19

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DEPARTAMENTO DE ESTATÍSTICA,
ANÁLISE MATEMÁTICA E OPTIMIZACIÓN



- Predicciones

- Predicciones Fallecidos

3 Panorama internacional

Tabla Previsión Confirmados: Mod. Lineal.

Last=13/04/2021

	Last	IA14	IA7	H1	H4	H8	H12	H15
España	3387072	175	79	3394667	3409405	3432507	3450116	3468725
Andalucía	526200	196	97	527739	531136	536224	540656	544732
Aragón	113935	205	94	114203	114710	115517	116148	116816
Asturias	48966	131	52	49063	49238	49494	49654	49814
Canarias	49740	111	47	49928	50330	50899	51403	51849
Cantabria	27072	152	74	27155	27350	27664	27943	28227
Castilla.y.León	217595	176	75	218014	218706	219800	220525	221357
Castilla.La.Mancha	179461	147	58	179751	180151	180803	181117	181563
Cataluña	555594	190	82	556791	559072	562449	564865	567340
Ceuta	5563	444	204	5594	5665	5770	5870	5960
Comunidad.Valenciana	387597	28	10	387929	388146	388785	388657	389137
Extremadura	72516	127	62	72667	72947	73386	73717	74054
Galicia	118697	68	31	118885	119205	119742	120067	120470
Islas.Baleares	58435	53	22	58505	58595	58767	58824	58958
La.Rioja	28590	180	69	28643	28721	28836	28901	28979
Madrid	649672	298	131	651408	655055	660976	665842	671116
Melilla	8320	435	181	8349	8403	8477	8538	8591
Murcia	109659	58	24	109782	109926	110220	110303	110527
Navarra	57186	382	169	57395	57829	58439	58979	59456
País.Vasco	172274	307	152	172870	174229	176265	178099	179757

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

Tabla Previsión Confirmados: Mod. No Paramétrico.

Last=13/04/2021

	Last	IA14	IA7	H1	H4	H8	H12	H15
España	3387072	175	79	3394320	3414650	3445945	3479355	3510282
Andalucía	526200	196	97	527633	531539	537647	544018	550025
Aragón	113935	205	94	114162	114810	115801	116876	117874
Asturias	48966	131	52	49092	49432	49962	50510	51021
Canarias	49740	111	47	49945	50512	51328	52146	52911
Cantabria	27072	152	74	27147	27353	27674	28009	28325
Castilla.y.León	217595	176	75	217970	219050	220682	222477	224140
Castilla.La.Mancha	179461	147	58	179744	180563	181792	183159	184428
Cataluña	555594	190	82	556952	560660	566429	572408	577964
Ceuta	5563	444	204	5593	5672	5787	5905	6009
Comunidad.Valenciana	387597	28	10	387954	389011	390626	392509	394358
Extremadura	72516	127	62	72636	72985	73511	74093	74634
Galicia	118697	68	31	118876	119397	120177	121048	121858
Islas.Baleares	58435	53	22	58508	58723	59043	59408	59753
La.Rioja	28590	180	69	28642	28791	29017	29262	29488
Madrid	649672	298	131	651420	656163	663573	671263	678496
Melilla	8320	435	181	8353	8443	8575	8707	8832
Murcia	109659	58	24	109780	110139	110677	111296	111890
Navarra	57186	382	169	57405	57995	58884	59778	60635
País.Vasco	172274	307	152	172872	174471	176955	179499	181951

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

Last=13/04/2021

	Last	IA14	IA7	H1	H4	H8	H12	H15
España	3387072	175	79	3393123	3409314	3430479	3451772	3469529
Andalucía	526200	196	97	527638	531244	535848	540590	543870
Aragón	113935	205	94	114153	114740	115514	116369	117141
Asturias	48966	131	52	49044	49225	49395	49517	49514
Canarias	49740	111	47	49913	50319	50770	51197	51454
Cantabria	27072	152	74	27149	27358	27675	27992	28295
Castilla.y.León	217595	176	75	217903	218725	219732	220861	221836
Castilla.La.Mancha	179461	147	58	179654	180162	180727	181382	181948
Cataluña	555594	190	82	556506	558834	561615	563920	565326
Ceuta	5563	444	204	5592	5665	5760	5861	5939
Comunidad.Valenciana	387597	28	10	387679	388149	388705	389964	391202
Extremadura	72516	127	62	72625	72945	73338	73818	74158
Galicia	118697	68	31	118826	119200	119680	120235	120654
Islas.Baleares	58435	53	22	58477	58599	58771	58979	59201
La.Rioja	28590	180	69	28626	28717	28817	28916	29000
Madrid	649672	298	131	651078	655019	660676	666104	671578
Melilla	8320	435	181	8347	8404	8459	8511	8536
Murcia	109659	58	24	109717	109926	110199	110613	111001
Navarra	57186	382	169	57383	57834	58339	58831	59158
País.Vasco	172274	307	152	172885	174319	176132	178010	179319

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

Tabla Ratio Incr. Confirmados: Mod. Lineal.

Last=13/04/2021

	Last	H1	H4	H8	H12	H15
España	0.0016	0.0022	0.0066	0.0134	0.0186	0.0241
Andalucía	0.0021	0.0029	0.0094	0.0191	0.0275	0.0352
Aragón	0.0015	0.0024	0.0068	0.0139	0.0194	0.0253
Asturias	0.0016	0.0020	0.0056	0.0108	0.0141	0.0173
Canarias	0.0030	0.0038	0.0119	0.0233	0.0334	0.0424
Cantabria	0.0023	0.0031	0.0103	0.0219	0.0322	0.0427
Castilla.y.León	0.0012	0.0019	0.0051	0.0101	0.0135	0.0173
Castilla.La.Mancha	0.0009	0.0016	0.0038	0.0075	0.0092	0.0117
Cataluña	0.0016	0.0022	0.0063	0.0123	0.0167	0.0211
Ceuta	0.0045	0.0056	0.0184	0.0372	0.0552	0.0713
Comunidad.Valenciana	0.0002	0.0009	0.0014	0.0031	0.0027	0.0040
Extremadura	0.0012	0.0021	0.0059	0.0120	0.0166	0.0212
Galicia	0.0010	0.0016	0.0043	0.0088	0.0115	0.0149
Islas.Baleares	0.0006	0.0012	0.0027	0.0057	0.0067	0.0089
La.Rioja	0.0011	0.0019	0.0046	0.0086	0.0109	0.0136
Madrid	0.0020	0.0027	0.0083	0.0174	0.0249	0.0330
Melilla	0.0027	0.0034	0.0099	0.0189	0.0262	0.0325
Murcia	0.0005	0.0011	0.0024	0.0051	0.0059	0.0079
Navarra	0.0028	0.0037	0.0112	0.0219	0.0314	0.0397
País.Vasco	0.0027	0.0035	0.0113	0.0232	0.0338	0.0434

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

Tabla Ratio Incr. Confirmados: Mod. No Paramétrico.

Last=13/04/2021

	Last	H1	H4	H8	H12	H15
España	0.0016	0.0021	0.0081	0.0174	0.0272	0.0364
Andalucía	0.0021	0.0027	0.0101	0.0218	0.0339	0.0453
Aragón	0.0015	0.0020	0.0077	0.0164	0.0258	0.0346
Asturias	0.0016	0.0026	0.0095	0.0203	0.0315	0.0420
Canarias	0.0030	0.0041	0.0155	0.0319	0.0484	0.0637
Cantabria	0.0023	0.0028	0.0104	0.0222	0.0346	0.0463
Castilla.y.León	0.0012	0.0017	0.0067	0.0142	0.0224	0.0301
Castilla.La.Mancha	0.0009	0.0016	0.0061	0.0130	0.0206	0.0277
Cataluña	0.0016	0.0024	0.0091	0.0195	0.0303	0.0403
Ceuta	0.0045	0.0053	0.0197	0.0403	0.0615	0.0802
Comunidad.Valenciana	0.0002	0.0009	0.0036	0.0078	0.0127	0.0174
Extremadura	0.0012	0.0017	0.0065	0.0137	0.0218	0.0292
Galicia	0.0010	0.0015	0.0059	0.0125	0.0198	0.0266
Islas.Baleares	0.0006	0.0013	0.0049	0.0104	0.0167	0.0225
La.Rioja	0.0011	0.0018	0.0070	0.0149	0.0235	0.0314
Madrid	0.0020	0.0027	0.0100	0.0214	0.0332	0.0444
Melilla	0.0027	0.0040	0.0148	0.0307	0.0465	0.0616
Murcia	0.0005	0.0011	0.0044	0.0093	0.0149	0.0203
Navarra	0.0028	0.0038	0.0141	0.0297	0.0453	0.0603
País.Vasco	0.0027	0.0035	0.0128	0.0272	0.0419	0.0562

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

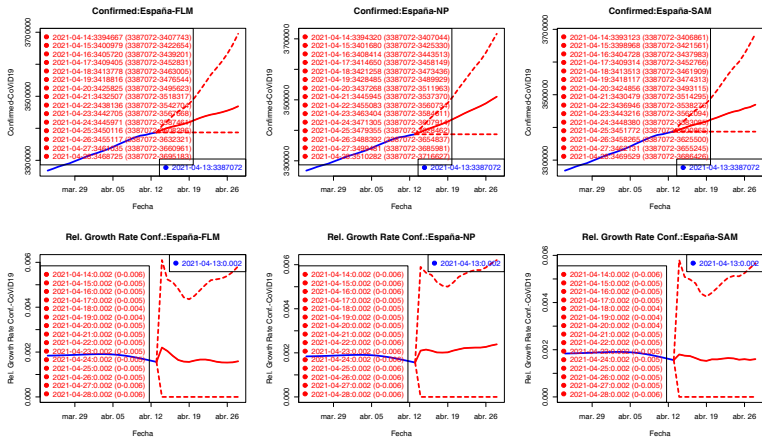
Tabla Ratio Incr. Confirmados: Mod. Aditivo.

Last=13/04/2021

	Last	H1	H4	H8	H12	H15
España	0.0016	0.0018	0.0066	0.0128	0.0191	0.0243
Andalucía	0.0021	0.0027	0.0096	0.0183	0.0273	0.0336
Aragón	0.0015	0.0019	0.0071	0.0139	0.0214	0.0281
Asturias	0.0016	0.0016	0.0053	0.0088	0.0113	0.0112
Canarias	0.0030	0.0035	0.0116	0.0207	0.0293	0.0345
Cantabria	0.0023	0.0028	0.0106	0.0223	0.0340	0.0452
Castilla.y.León	0.0012	0.0014	0.0052	0.0098	0.0150	0.0195
Castilla.La.Mancha	0.0009	0.0011	0.0039	0.0071	0.0107	0.0139
Cataluña	0.0016	0.0016	0.0058	0.0108	0.0150	0.0175
Ceuta	0.0045	0.0053	0.0184	0.0354	0.0535	0.0676
Comunidad.Valenciana	0.0002	0.0002	0.0014	0.0029	0.0061	0.0093
Extremadura	0.0012	0.0015	0.0059	0.0113	0.0180	0.0226
Galicia	0.0010	0.0011	0.0042	0.0083	0.0130	0.0165
Islas.Baleares	0.0006	0.0007	0.0028	0.0058	0.0093	0.0131
La.Rioja	0.0011	0.0013	0.0044	0.0079	0.0114	0.0144
Madrid	0.0020	0.0022	0.0082	0.0169	0.0253	0.0337
Melilla	0.0027	0.0033	0.0101	0.0167	0.0230	0.0259
Murcia	0.0005	0.0005	0.0024	0.0049	0.0087	0.0122
Navarra	0.0028	0.0034	0.0113	0.0202	0.0288	0.0345
País.Vasco	0.0027	0.0035	0.0119	0.0224	0.0333	0.0409

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

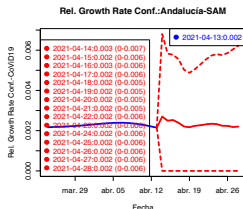
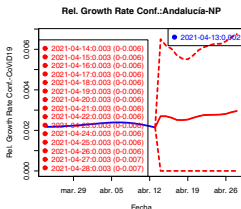
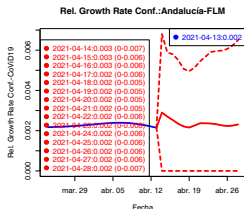
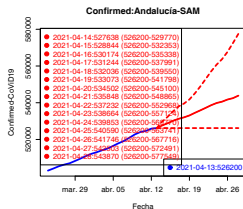
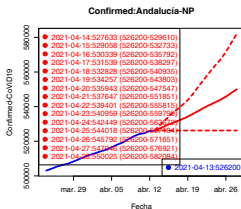
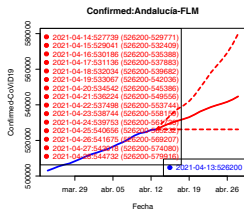
Confirmados: España



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

◀ Confirmados ▶ Fallecidos

Confirmados: Andalucía

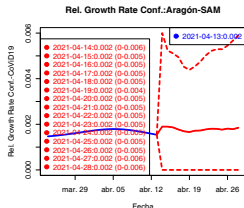
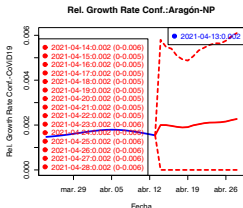
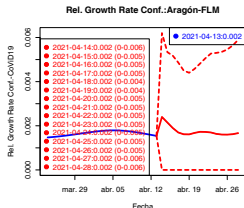
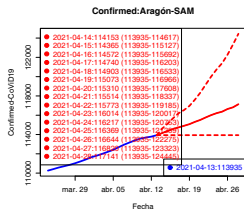
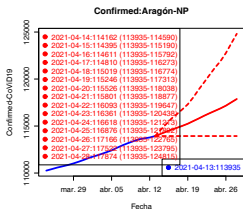
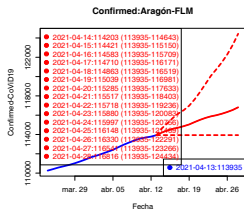


Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

← Confirmados

← Fallecidos

Confirmados: Aragón

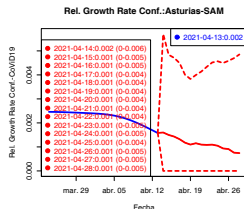
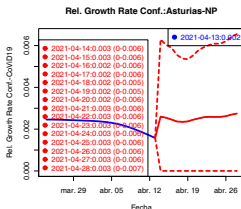
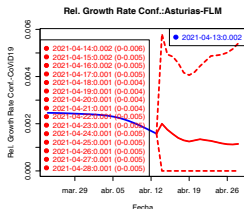
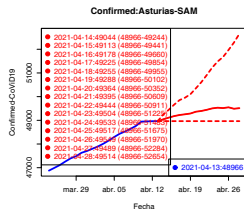
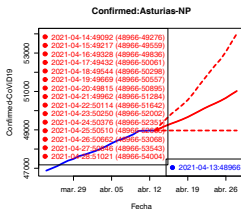
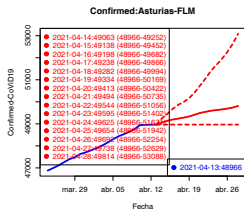


Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Confirmados: Asturias

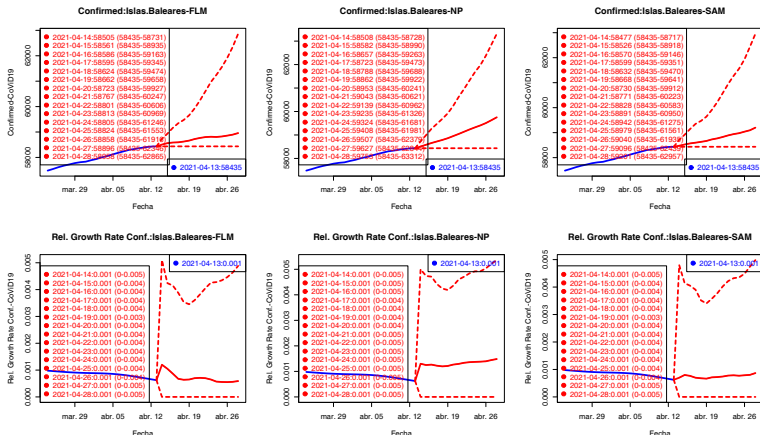


Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Confirmados: Islas Baleares

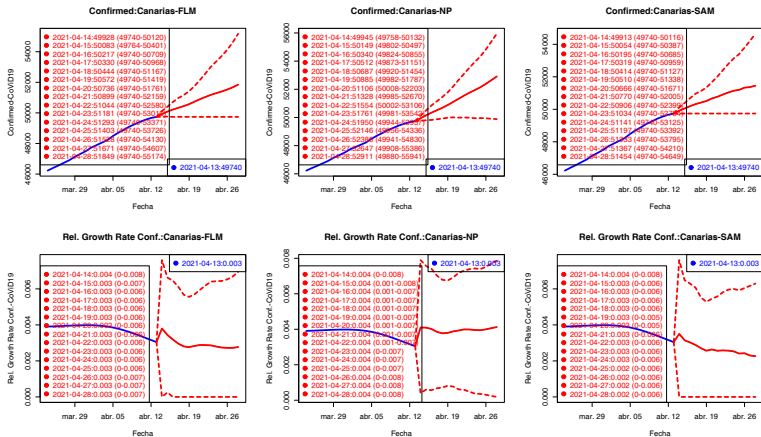


Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

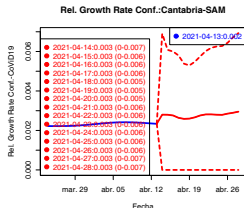
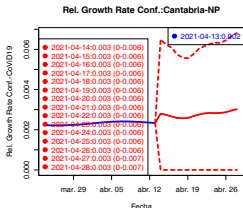
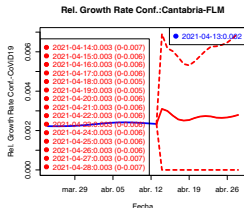
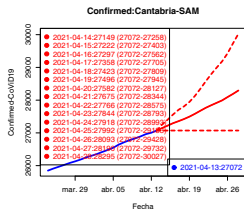
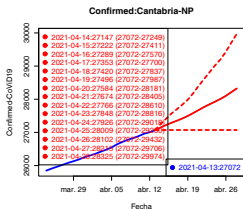
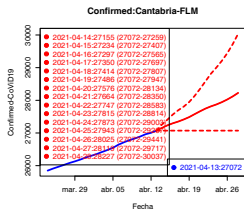
◀ Fallecidos

Confirmados: Canarias



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

Confirmados: Cantabria



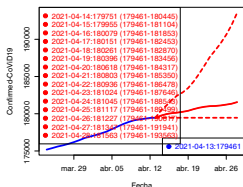
Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

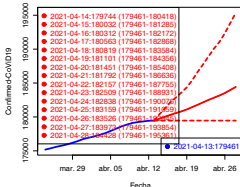
◀ Fallecidos

Confirmados: Castilla-La Mancha

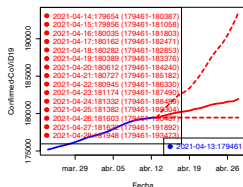
Confirmed:Castilla.La.Mancha-FLM



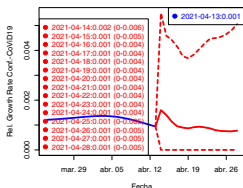
Confirmed:Castilla.La.Mancha-NP



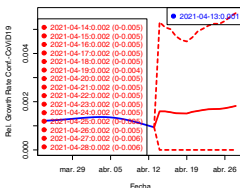
Confirmed:Castilla.La.Mancha-SAM



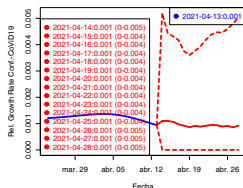
Rel. Growth Rate Conf.:Castilla.La.Mancha-FLM



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



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

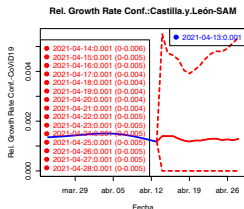
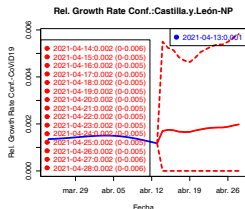
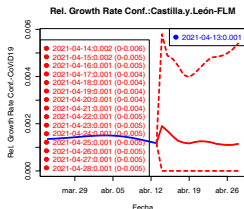
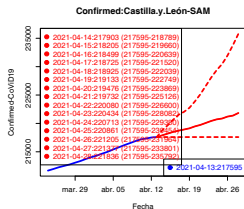
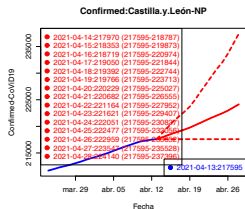
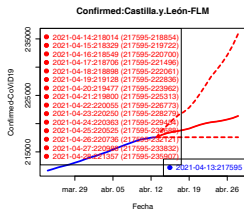


Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

← Confirmados

← Fallecidos

Confirmados: Castilla y León

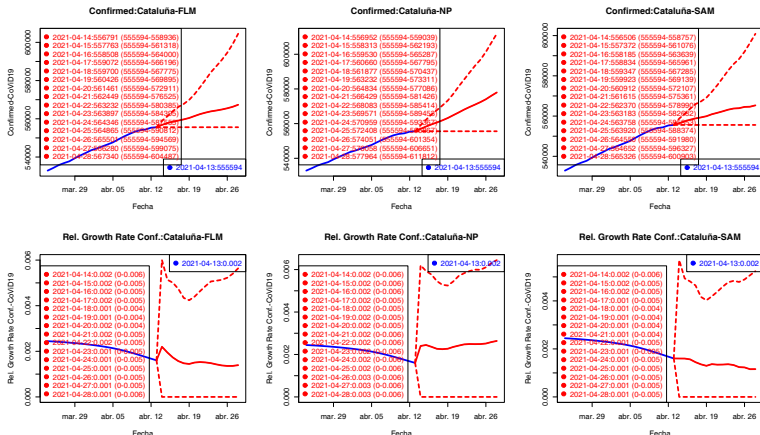


Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

← Confirmados

← Fallecidos

Confirmados: Cataluña

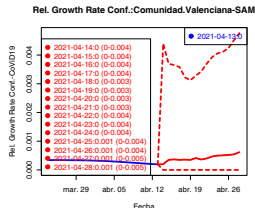
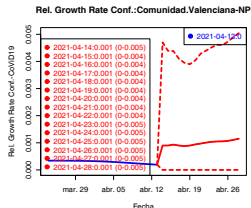
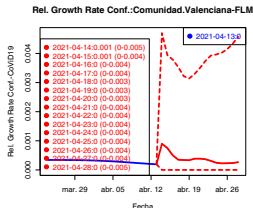
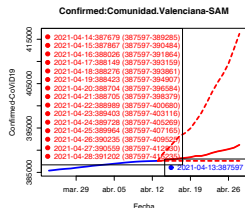
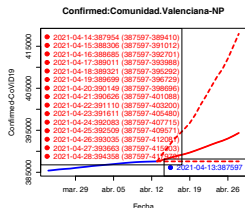
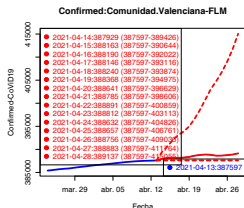


Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Confirmados: C. Valenciana



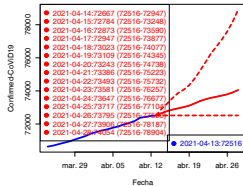
Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

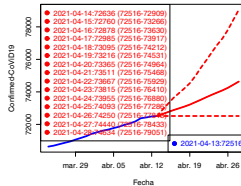
◀ Fallecidos

Confirmados: Extremadura

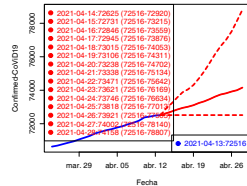
Confirmed:Extremadura-FLM



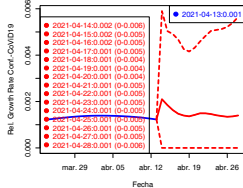
Confirmed:Extremadura-NP



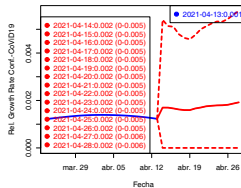
Confirmed:Extremadura-SAM



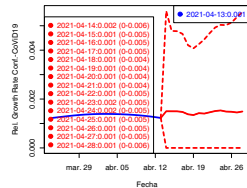
Rel. Growth Rate Conf.:Extremadura-FLM



Rel. Growth Rate Conf.:Extremadura-NP



Rel. Growth Rate Conf.:Extremadura-SAM



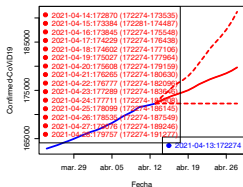
Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

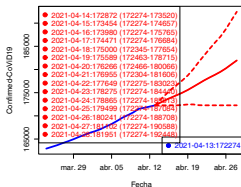
◀ Fallecidos

Confirmados: País Vasco

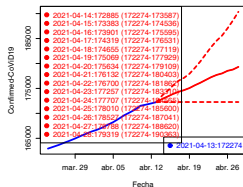
Confirmed:País.Vasco-FLM



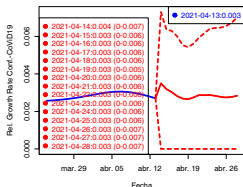
Confirmed:País.Vasco-NP



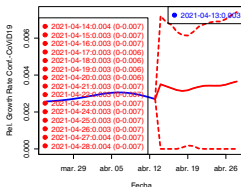
Confirmed:País.Vasco-SAM



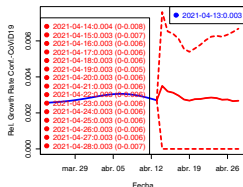
Rel. Growth Rate Conf.:País.Vasco-FLM



Rel. Growth Rate Conf.:País.Vasco-NP



Rel. Growth Rate Conf.:País.Vasco-SAM

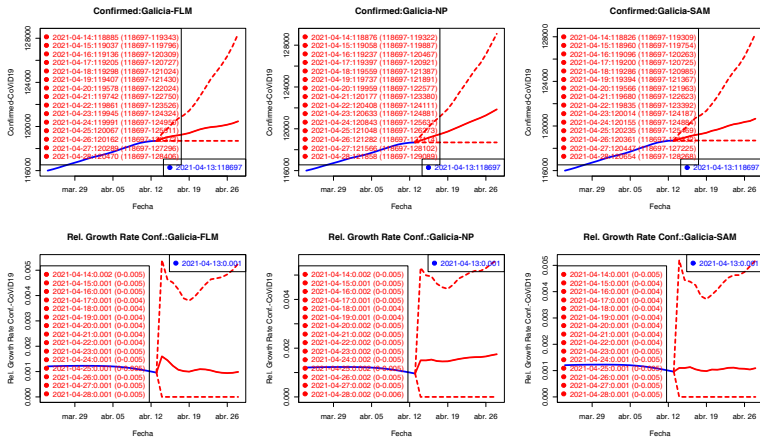


Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Confirmados: Galicia

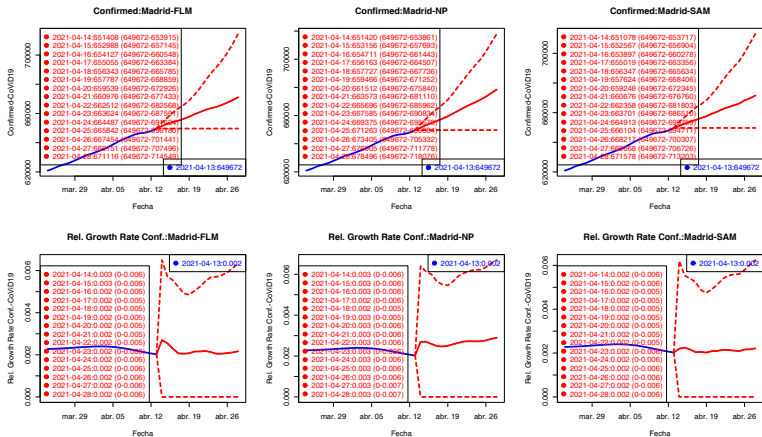


Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Confirmados: Madrid

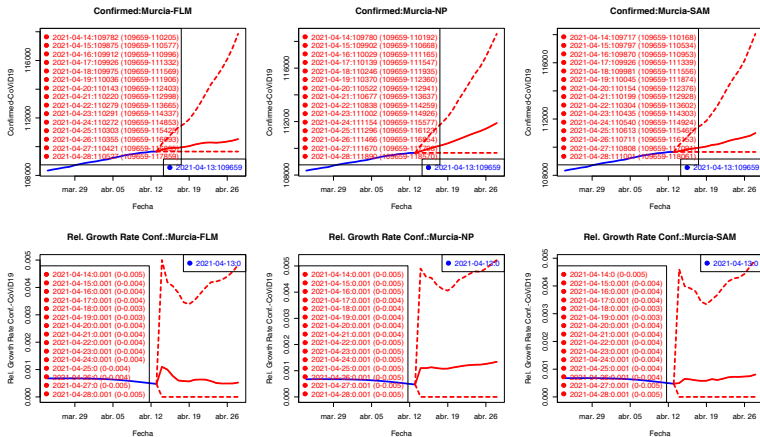


Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Confirmados: Murcia



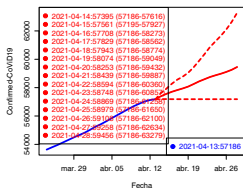
Los valores del Ratio de incremento de H2–H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

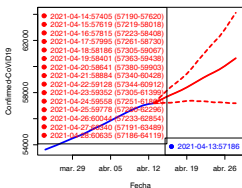
◀ Fallecidos

Confirmados: Navarra

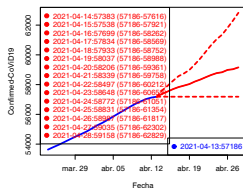
Confirmed:Navarra-FLM



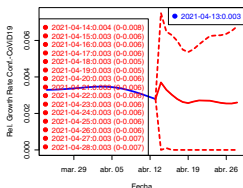
Confirmed:Navarra-NP



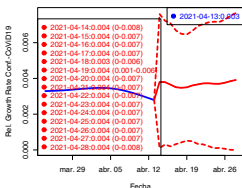
Confirmed:Navarra-SAM



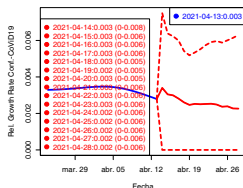
Rel. Growth Rate Conf.:Navarra-FLM



Rel. Growth Rate Conf.:Navarra-NP



Rel. Growth Rate Conf.:Navarra-SAM

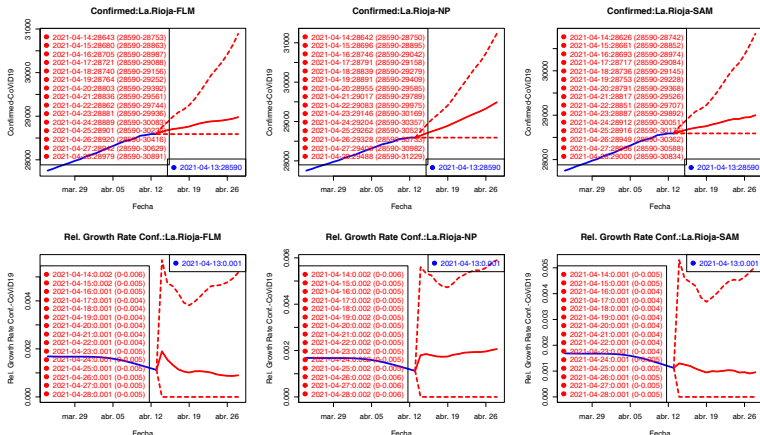


Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Confirmados: La Rioja



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

Table of Contents

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

Modelos para fallecidos por CoViD-19

Último dato: 13/04/2021 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	0.005	0.005	0.005	0.001	0.001	0.001	0.555	0.618	0.559
H4	0.02	0.019	0.018	0.009	0.009	0.008	0.816	0.831	0.828
H8	0.068	0.072	0.063	0.037	0.041	0.032	0.856	0.853	0.867
H12	0.145	0.155	0.128	0.1	0.104	0.083	0.863	0.858	0.878
H15	0.226	0.251	0.191	0.175	0.215	0.132	0.873	0.863	0.892

Tabla Previsión Fallecidos: Mod. Lineal.

Last=13/04/2021

	Last	H1	H4	H8	H12	H15
España	76357	76405	76449	76545	76501	76420
Andalucía	9293	9297	9300	9305	9293	9293
Aragón	3368	3372	3377	3386	3390	3391
Asturias	1924	1926	1928	1931	1931	1928
Canarias	690	691	695	699	702	704
Cantabria	550	551	553	556	558	560
Castilla y León	6640	6644	6647	6654	6649	6640
Castilla-La Mancha	5766	5769	5771	5776	5771	5766
Cataluña	13600	13604	13602	13603	13600	13600
Ceuta	99	99	99	100	100	100
Comunidad Valenciana	7163	7165	7163	7163	7163	7163
Extremadura	1754	1756	1758	1765	1768	1771
Galicia	2354	2356	2358	2362	2362	2358
Islas Baleares	780	780	780	780	780	780
La Rioja	751	751	752	752	751	751
Madrid	14803	14817	14837	14879	14891	14896
Melilla	86	86	87	89	90	91
Murcia	1574	1574	1574	1574	1574	1574
Navarra	1134	1136	1139	1145	1150	1152
País Vasco	4028	4030	4033	4035	4033	4028

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

Tabla Previsión Fallecidos: Mod. No Paramétrico.

Last=13/04/2021

	Last	H1	H4	H8	H12	H15
España	76357	76441	76741	77181	77611	78017
Andalucía	9293	9304	9343	9401	9458	9512
Aragón	3368	3372	3387	3408	3430	3450
Asturias	1924	1927	1935	1948	1961	1973
Canarias	690	692	697	706	714	721
Cantabria	550	551	553	556	560	563
Castilla.y.León	6640	6647	6673	6710	6746	6781
Castilla.La.Mancha	5766	5772	5793	5823	5852	5880
Cataluña	13600	13613	13663	13735	13804	13869
Ceuta	99	99	100	102	103	104
Comunidad.Valenciana	7163	7169	7193	7227	7260	7290
Extremadura	1754	1756	1762	1771	1780	1788
Galicia	2354	2357	2367	2382	2397	2411
Islas.Baleares	780	781	783	787	790	793
La.Rioja	751	752	755	759	763	767
Madrid	14803	14821	14882	14973	15062	15147
Melilla	86	86	88	89	91	93
Murcia	1574	1576	1582	1590	1598	1606
Navarra	1134	1135	1140	1147	1154	1161
País.Vasco	4028	4033	4050	4075	4100	4123

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

Tabla Ratio Incr. Fallecidos: Mod. Lineal.

Last=13/04/2021

	Last	H1	H4	H8	H12	H15
España	0.0005	0.0006	0.0012	0.0025	0.0019	0.0008
Andalucía	0.0005	0.0004	0.0008	0.0012	0.0000	0.0000
Aragón	0.0009	0.0011	0.0026	0.0055	0.0066	0.0068
Asturias	0.0009	0.0009	0.0022	0.0037	0.0036	0.0020
Canarias	0.0022	0.0019	0.0067	0.0131	0.0169	0.0202
Cantabria	0.0011	0.0015	0.0047	0.0101	0.0144	0.0179
Castilla.y.León	0.0005	0.0006	0.0011	0.0021	0.0014	0.0000
Castilla.La.Mancha	0.0004	0.0006	0.0009	0.0018	0.0008	0.0000
Cataluña	0.0003	0.0003	0.0001	0.0002	0.0000	0.0000
Ceuta	0.0017	0.0011	0.0026	0.0067	0.0053	0.0051
Comunidad.Valenciana	0.0001	0.0003	0.0000	0.0000	0.0000	0.0000
Extremadura	0.0007	0.0010	0.0023	0.0063	0.0077	0.0096
Galicia	0.0008	0.0009	0.0017	0.0034	0.0032	0.0018
Islas.Baleares	0.0002	0.0003	0.0000	0.0002	0.0000	0.0000
La.Rioja	0.0005	0.0006	0.0008	0.0010	0.0000	0.0000
Madrid	0.0008	0.0009	0.0023	0.0051	0.0060	0.0063
Melilla	0.0048	0.0048	0.0152	0.0345	0.0479	0.0588
Murcia	0.0002	0.0001	0.0000	0.0000	0.0000	0.0000
Navarra	0.0012	0.0015	0.0048	0.0099	0.0139	0.0162
País.Vasco	0.0005	0.0005	0.0012	0.0019	0.0012	0.0001

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

Tabla Ratio Incr. Fallecidos: Mod. No Paramétrico.

Last=13/04/2021

	Last	H1	H4	H8	H12	H15
España	0.0005	0.0011	0.0050	0.0108	0.0164	0.0217
Andalucía	0.0005	0.0012	0.0054	0.0116	0.0177	0.0235
Aragón	0.0009	0.0013	0.0055	0.0120	0.0183	0.0243
Asturias	0.0009	0.0014	0.0058	0.0124	0.0190	0.0254
Canarias	0.0022	0.0031	0.0106	0.0230	0.0342	0.0450
Cantabria	0.0011	0.0013	0.0054	0.0118	0.0180	0.0239
Castilla.y.León	0.0005	0.0011	0.0049	0.0105	0.0160	0.0212
Castilla.La.Mancha	0.0004	0.0010	0.0046	0.0099	0.0150	0.0197
Cataluña	0.0003	0.0010	0.0046	0.0099	0.0150	0.0198
Ceuta	0.0017	0.0035	0.0119	0.0258	0.0381	0.0496
Comunidad.Valenciana	0.0001	0.0009	0.0042	0.0090	0.0135	0.0178
Extremadura	0.0007	0.0010	0.0045	0.0096	0.0146	0.0193
Galicia	0.0008	0.0013	0.0055	0.0119	0.0182	0.0243
Islas.Baleares	0.0002	0.0008	0.0041	0.0087	0.0131	0.0172
La.Rioja	0.0005	0.0011	0.0049	0.0105	0.0160	0.0211
Madrid	0.0008	0.0012	0.0053	0.0115	0.0175	0.0232
Melilla	0.0048	0.0050	0.0177	0.0393	0.0584	0.0751
Murcia	0.0002	0.0010	0.0048	0.0102	0.0155	0.0204
Navarra	0.0012	0.0012	0.0053	0.0115	0.0176	0.0235
País.Vasco	0.0005	0.0012	0.0054	0.0116	0.0177	0.0236

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

Tabla Ratio Incr. Fallecidos: Mod. Aditivo.

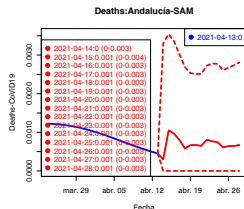
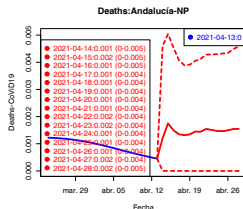
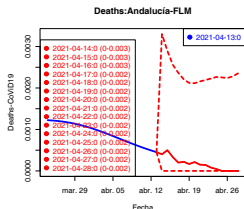
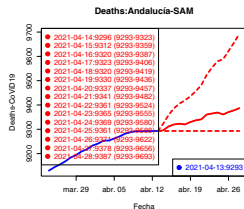
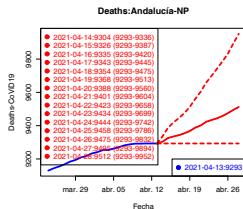
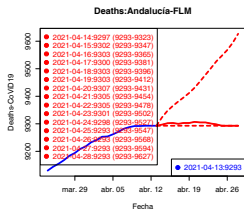
Last=13/04/2021

	Last	H1	H4	H8	H12	H15
España	0.0005	0.0004	0.0029	0.0050	0.0073	0.0091
Andalucía	0.0005	0.0003	0.0032	0.0052	0.0073	0.0101
Aragón	0.0009	0.0008	0.0045	0.0083	0.0127	0.0163
Asturias	0.0009	0.0006	0.0039	0.0064	0.0093	0.0104
Canarias	0.0022	0.0018	0.0078	0.0151	0.0226	0.0297
Cantabria	0.0011	0.0011	0.0042	0.0069	0.0121	0.0141
Castilla.y.León	0.0005	0.0003	0.0029	0.0045	0.0073	0.0092
Castilla.La.Mancha	0.0004	0.0002	0.0025	0.0036	0.0064	0.0077
Cataluña	0.0003	0.0000	0.0014	0.0020	0.0023	0.0019
Ceuta	0.0017	0.0014	0.0063	0.0159	0.0189	0.0252
Comunidad.Valenciana	0.0001	0.0000	0.0012	0.0016	0.0030	0.0037
Extremadura	0.0007	0.0006	0.0027	0.0057	0.0095	0.0121
Galicia	0.0008	0.0006	0.0042	0.0089	0.0122	0.0157
Islas.Baleares	0.0002	0.0000	0.0014	0.0018	0.0034	0.0038
La.Rioja	0.0005	0.0002	0.0025	0.0044	0.0060	0.0064
Madrid	0.0008	0.0007	0.0036	0.0070	0.0099	0.0123
Melilla	0.0048	0.0048	0.0182	0.0393	0.0571	0.0704
Murcia	0.0002	0.0000	0.0019	0.0044	0.0058	0.0094
Navarra	0.0012	0.0009	0.0037	0.0055	0.0098	0.0089
País.Vasco	0.0005	0.0004	0.0037	0.0049	0.0074	0.0097

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

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

Fallecidos: Andalucía

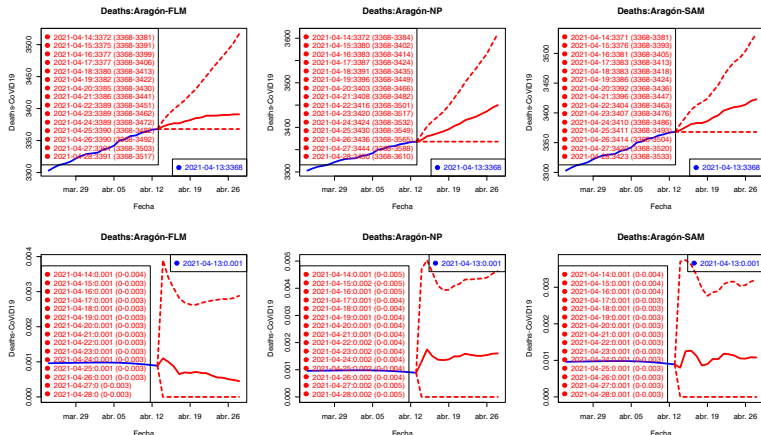


Los valores del Ratio de incremento de H2–H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Fallecidos: Aragón

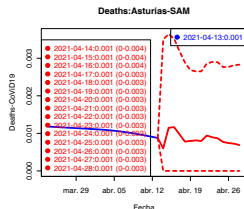
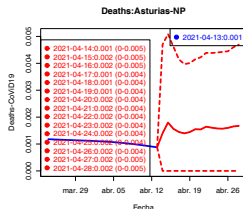
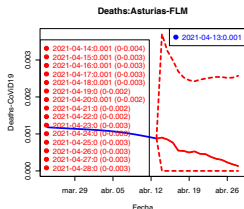
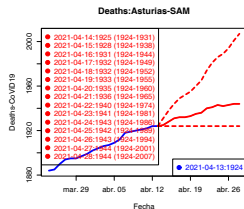
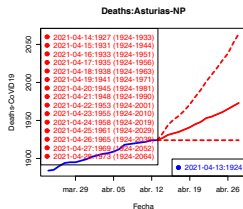
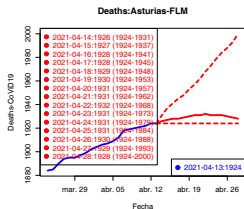


Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Fallecidos: Asturias

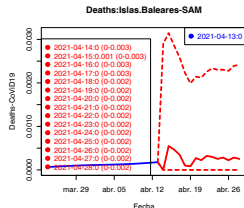
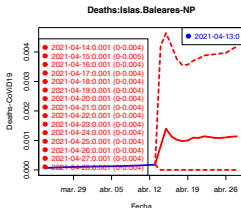
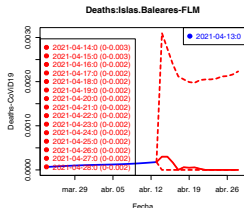
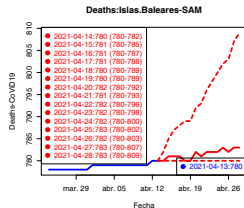
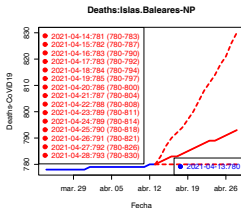
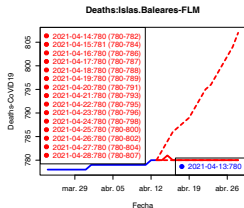


Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Fallecidos: Islas Baleares

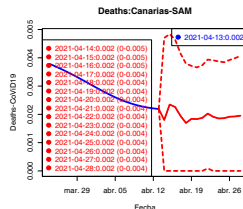
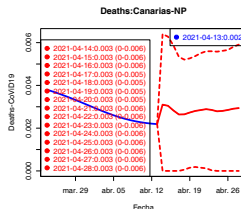
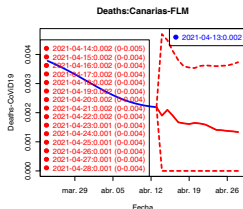
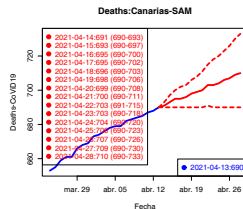
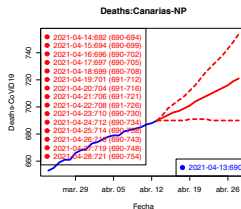
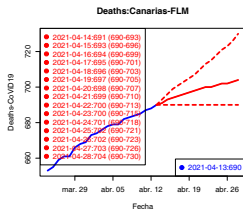


Los valores del Ratio de incremento de H2–H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Fallecidos: Canarias

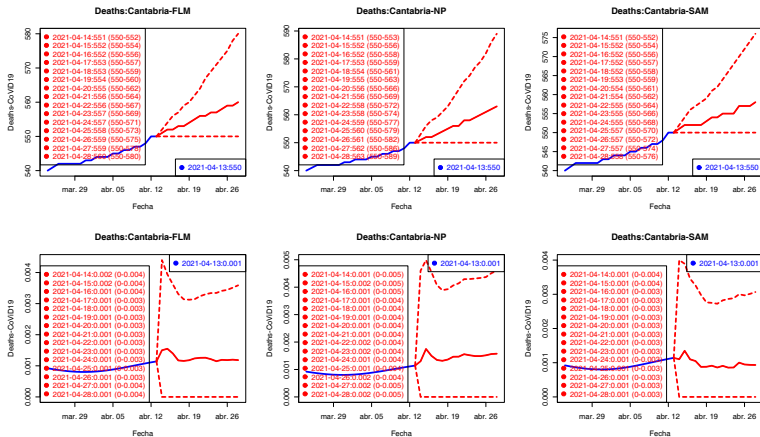


Los valores del Ratio de incremento de H2–H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Fallecidos: Cantabria



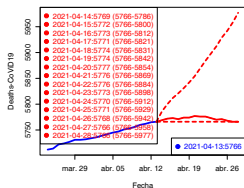
Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

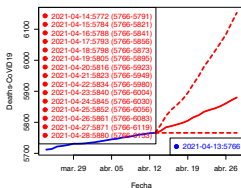
◀ Fallecidos

Fallecidos: Castilla-La Mancha

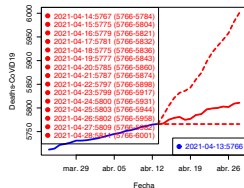
Deaths:Castilla.La.Mancha-FLM



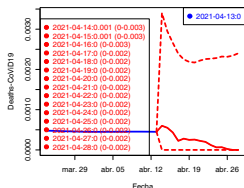
Deaths:Castilla.La.Mancha-NP



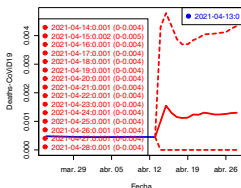
Deaths:Castilla.La.Mancha-SAM



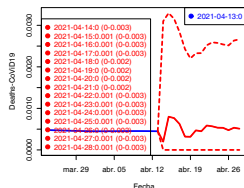
Deaths:Castilla.La.Mancha-FLM



Deaths:Castilla.La.Mancha-NP



Deaths:Castilla.La.Mancha-SAM

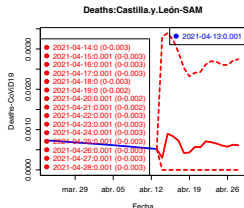
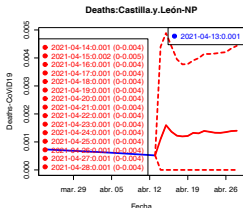
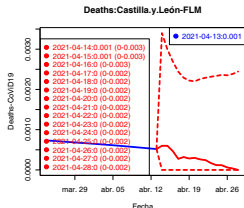
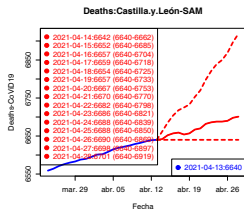
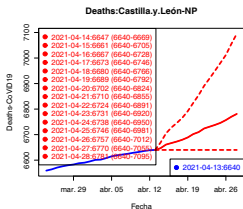
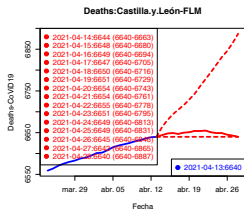


Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

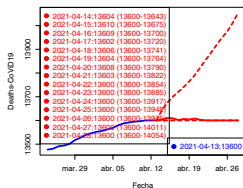
Fallecidos: Castilla y León



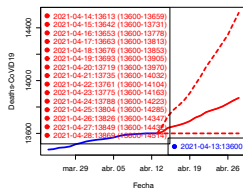
Los valores del Ratio de incremento de H2–H15 están rescalados a H1 para su comparación gráfica.

Fallecidos: Cataluña

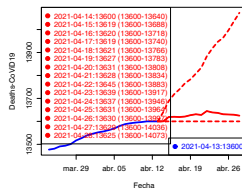
Deaths:Cataluña-FLM



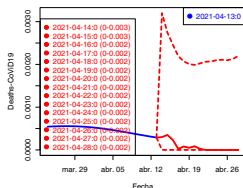
Deaths:Cataluña-NP



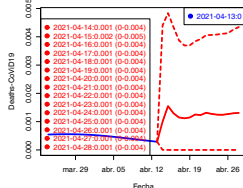
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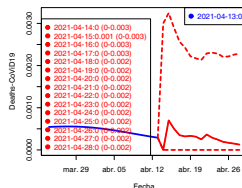
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Deaths:Cataluña-SAM

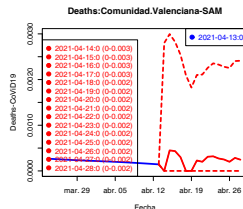
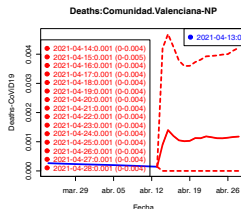
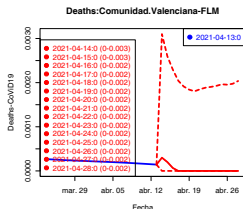
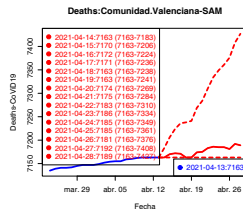
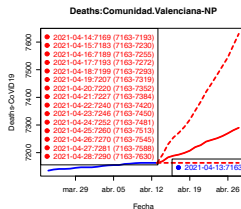
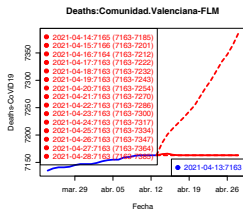


Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

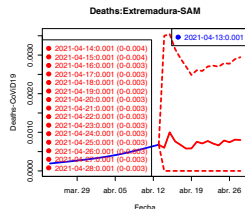
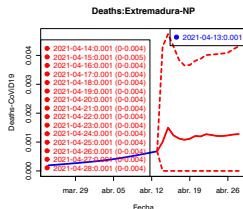
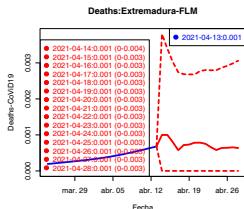
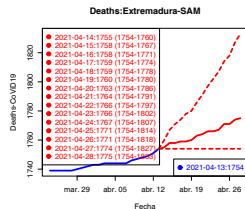
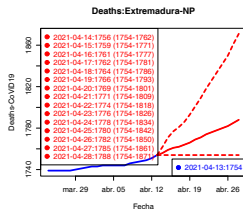
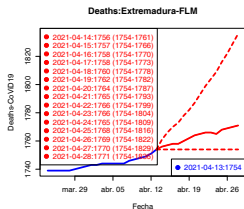
◀ Fallecidos

Fallecidos: C. Valenciana



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

Fallecidos: Extremadura

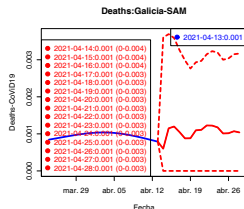
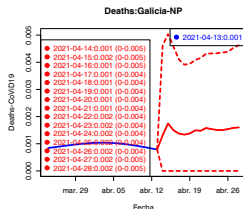
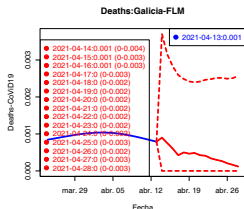
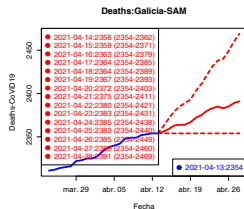
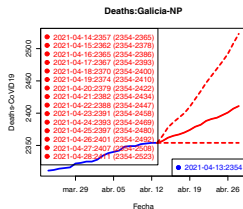
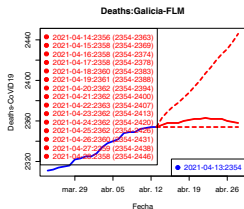


Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

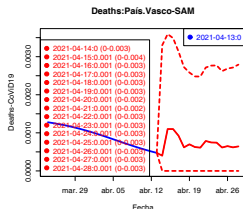
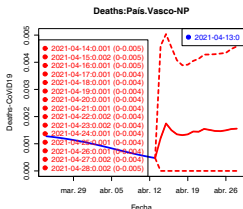
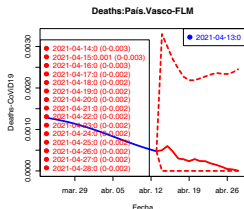
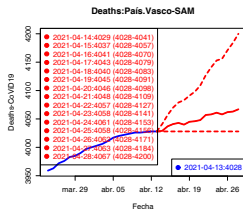
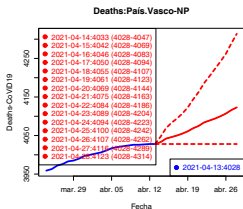
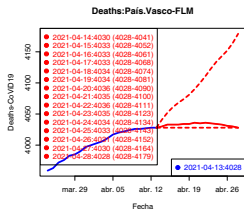
◀ Fallecidos

Fallecidos: Galicia



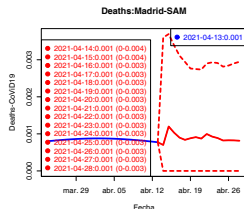
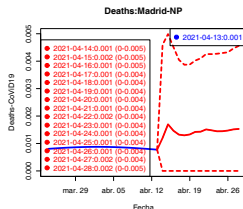
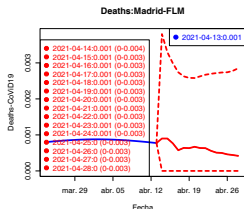
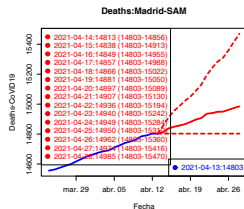
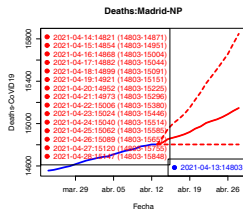
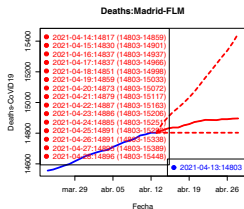
Los valores del Ratio de incremento de H2–H15 están rescalados a H1 para su comparación gráfica.

Fallecidos: País Vasco



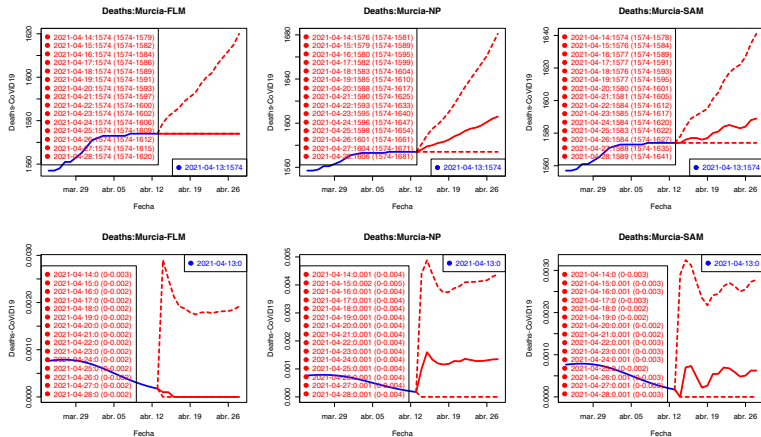
Los valores del Ratio de incremento de H2–H15 están rescalados a H1 para su comparación gráfica.

Fallecidos: Madrid



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

Fallecidos: Murcia



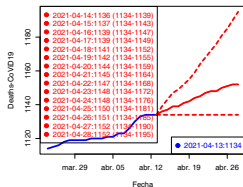
Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

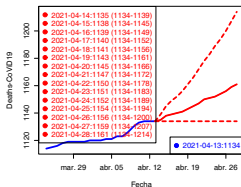
◀ Fallecidos

Fallecidos: Navarra

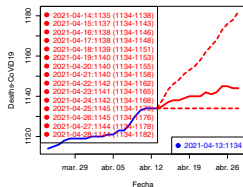
Deaths:Navarra-FLM



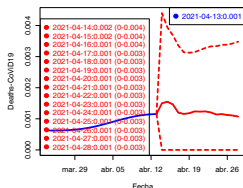
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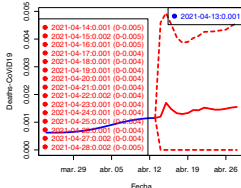
Deaths:Navarra-SAM



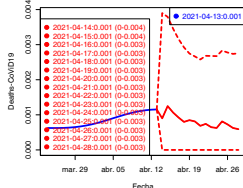
Deaths:Navarra-FLM



Deaths:Navarra-NP



Deaths:Navarra-SAM

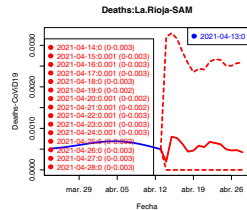
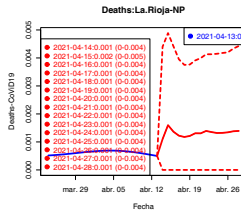
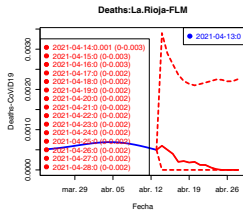
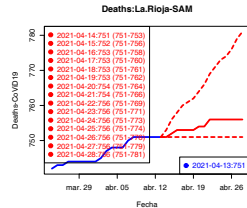
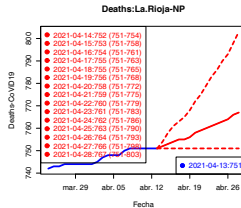
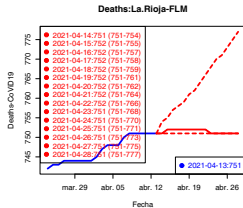


Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Fallecidos: La Rioja



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

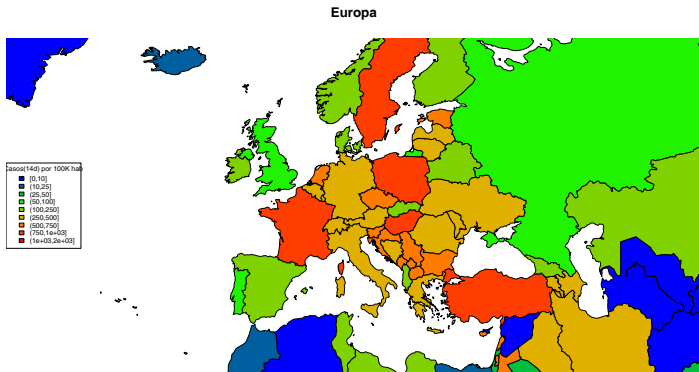
◀ Confirmados

◀ Fallecidos

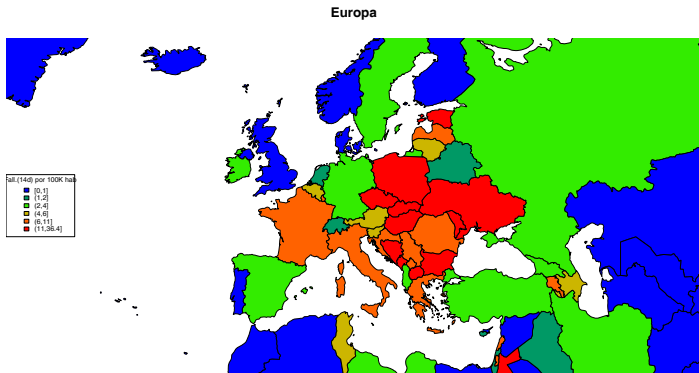
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Europa: Incidencia Acumulada (14d) por 100K hab.

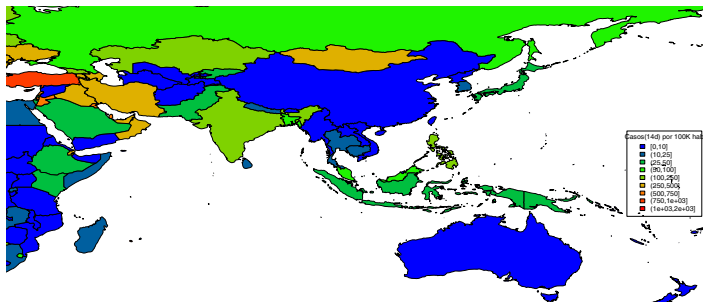


Europa: Fallecidos (14d) por 100K hab.



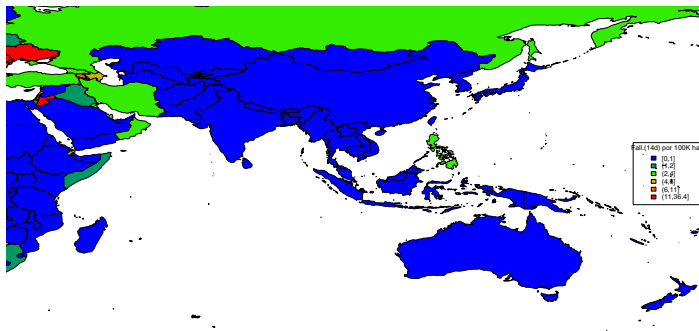
Asia y Oceanía: Incidencia acumulada (14d) por 100K hab.

Asia y Oceanía



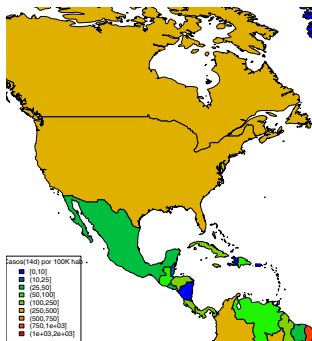
Asia y Oceanía: Fallecidos (14d) por 100K hab.

Asia y Oceanía

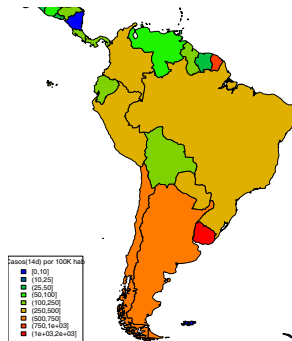


América: Incidencia acumulada (14d) por 100K hab.

América del Norte

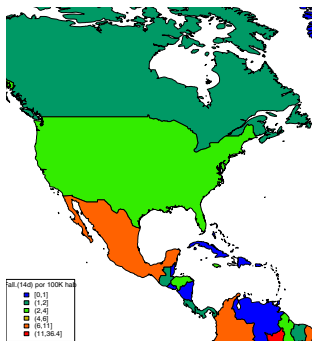


América del sur

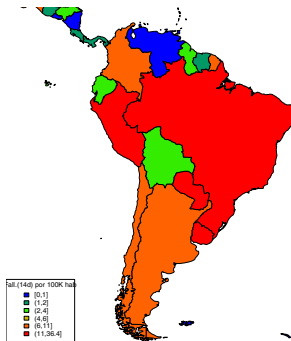


América: Fallecidos (14d) por 100K hab.

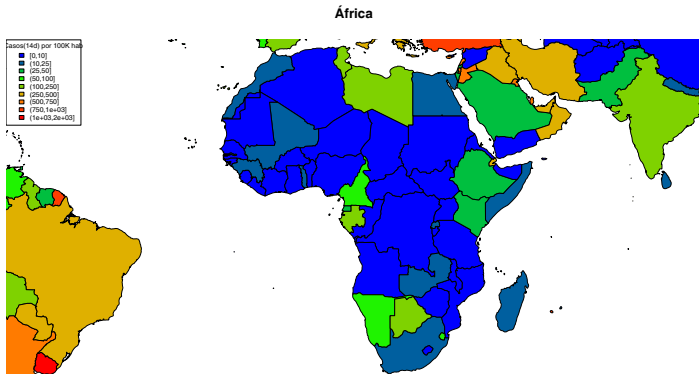
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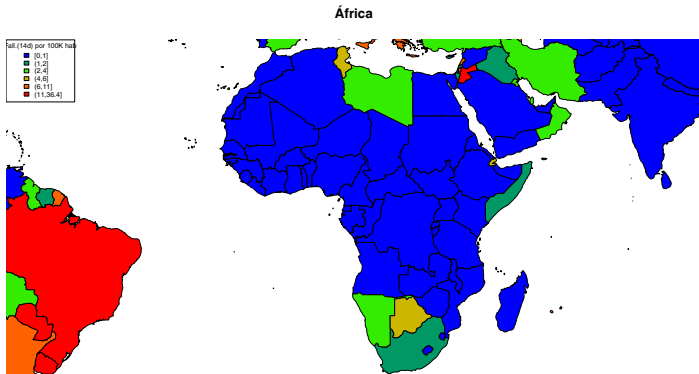
América del sur



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.