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Childhood vaccine coverage in Italy after the new law on mandatory immunization

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Parole chiave: Coperture vaccinali, indicatori di salute, programmi e politiche vaccinali, Piano Nazionale di Prevenzione Vaccinale, Italia

Abstract

Background. *The Italian National Immunization Prevention Plan (PNPV) identifies vaccines actively offered free of charge to target populations within the National Health Service. Despite this, childhood immunization coverage has been declining in Italy in recent years. As a response, the Italian Parliament in July 2017 approved law n. 119 extending mandatory childhood vaccines from four to ten, this stimulating a lively debate at both the scientific and policy level.*

Methods. *We analysed and critically interpreted 2000-2017 Italian national childhood immunization coverage trends, by different vaccine, target population, birth cohort and by Region. In particular, in order to preliminarily assess the impact of the new law, we computed percentage changes in 2016-2017 vaccine coverage for both mandatory and recommended vaccine programs. Data were provided by the Directorate General of Health Prevention of the Italian Ministry of Health.*

Results. *In 2017 national-level vaccine coverage at 24 months of age was 94.5% for Polio and 91.7% for Measles, this representing, respectively 1.2% and 4.4% increase, as compared to 2016. Conjugate Pneumococcal and Meningococcal C vaccines coverage increased, respectively, by +2.5% and +2.4% between 2016 and 2017. National-level polio vaccine coverage remained above the 95% PNPV coverage target between 2000 and 2013 and has remained below since then. In particular, it has had been steadily declining between 2011 and 2016 (-2.8%). Measles coverage remained well below the 95% coverage target for the entire study period. In recent times, it declined by 4.8% between 2011 and 2015 with the lowest coverage rate reported for year 2015 (85.3%). There is high heterogeneity in coverage within Regions for both mandatory and recommended vaccines.*

Conclusion. *Preliminary data show that childhood immunization coverage increased since the approval of the new law on mandatory vaccination. Nonetheless, as additional data are accumulating and will make it possible to further assess the impact of the new law, strengthened efforts are needed in Italy to promote informed and proactive vaccine uptake.*

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Background

Several European countries in recent years have reported decreasing vaccine coverages and unprecedented outbreaks of vaccine-preventable diseases (VPDs) (1, 2). The European Union recognizes the waning of public confidence in vaccination as a major public health concern and is reinforcing its support to national vaccination efforts to increase coverage. Italy, in response to alarmingly decreasing vaccine coverage rates and re-emerging measles outbreaks (3-7) approved in July 2017 law n. 119/2017 which makes 10 vaccines mandatory for children aged 0 to 16 years, namely: Diphtheria, Tetanus, Polio, Hepatitis B – which were already mandatory – plus Pertussis, *Haemophilus influenzae* type b infections, Measles, Mumps, Rubella and Varicella, and imposes monetary fines to the families of unvaccinated children. Furthermore, the law requires children to be vaccinated for admission to childcare up to primary school. The new law also includes the implementation of a National Immunization Information Systems (NIIS) and allocates dedicated resources to health education and health promotion interventions (8). Such political-level action enhanced lively discussion around vaccines and immunization polices, both within the scientific community, and at the political and societal level (9).

As representatives of the Italian Ministry of Health (MoH), the Italian Society of Public Health and of the academia, we have been closely monitoring vaccine coverages in Italy since 2015 (3, 4). Immunization coverage is a key measure of vaccination system performance (10); it can support national and regional immunization policies' implementation and monitoring, as well as inform on the impact of interventions aimed at increasing vaccine uptake. In previous reports we reported to the international scientific community the structure and content of the Italian National Immunization Plan (PNPV) (4, 11), we systematically reported how the PNPV was transposed into regional immunization programs, and we analyzed national-level coverage data by region, vaccine programme and birth cohort for the study period 2000-2016, concluding that, despite PNPV being a milestone for prevention in the Italian health policy agenda, its objectives and coverage targets had only been partially met and much work was left to be done.

In the context of a new era of immunization policies in Italy, aim of the current study is to update the analysis on Italian vaccine coverage trends, as well as to preliminarily assess the impact of the new law mandatory immunization on vaccine uptake.

Methods

In this paper we pool, analyse and critically interpret national-level childhood immunization coverage rates for the period 2000-2017, with a particular focus on the changes in vaccination coverage after the approval of the new law on mandatory vaccination. Data were provided by the Directorate General of Health Prevention (DGHP) of the Italian Ministry of Health.

Childhood immunization coverage rates are calculated computing number of immunised subjects by resident target population, expressed as percentages. The MoH has annually reported, since the year 2000, 24 months of age coverage rates of mandatory and recommended infant vaccinations included in the PNPV, by Region as well as by residents-weighted national average. Since 2013 coverage rates are also calculated at 36 months of age (for vaccinations), at 5-6 years of age and 16 and 18 years of age (for booster doses at preschool age and in teens) and by single antigen; since 2017 they are also reported at 48 months and 8 years of age. We have

previously detailed reporting flows of immunization data in Italy from the local to the regional and national levels commenting they mirror the heterogeneous structure of the different Regional Health Services (3). Here, we carried out descriptive analysis on national-level coverage data for vaccines programs included in the 2017-2019 PNPV. Although throughout the study period the MoH has collected coverage rates from Regions by different vaccine formulations (i.e Diphtheria, Tetanus and Acellular Pertussis vaccine - DTaP or Diphtheria and Tetanus vaccine + Diphtheria, Tetanus, and Acellular Pertussis vaccine -DT-DTaP; (12)), we present coverage figures by single preventable disease and by single vaccine. Based on data availability, we carried out descriptive analysis for the national level and Regional level, by vaccine and by birth cohort. In particular, we report on two sets of analyses: i) we present current immunization coverage data, expressed as the most updated coverage rates (year 2017), then ii) we present immunization coverage trends over time, expressed as percentage change in vaccine coverage over different time periods. In particular, vaccine coverage 2016-2017 percentage change was considered an estimate of the impact of the new law on mandatory vaccination on vaccine uptake.

Results

Coverage rates before the new law on mandatory vaccination

Temporal trends of national-level childhood immunization coverage for the study period 2000-2017 are reported in Figure 1 and Table 1. National-level polio vaccine coverage at 24 months of age, used as a proxy for all the antigens contained in

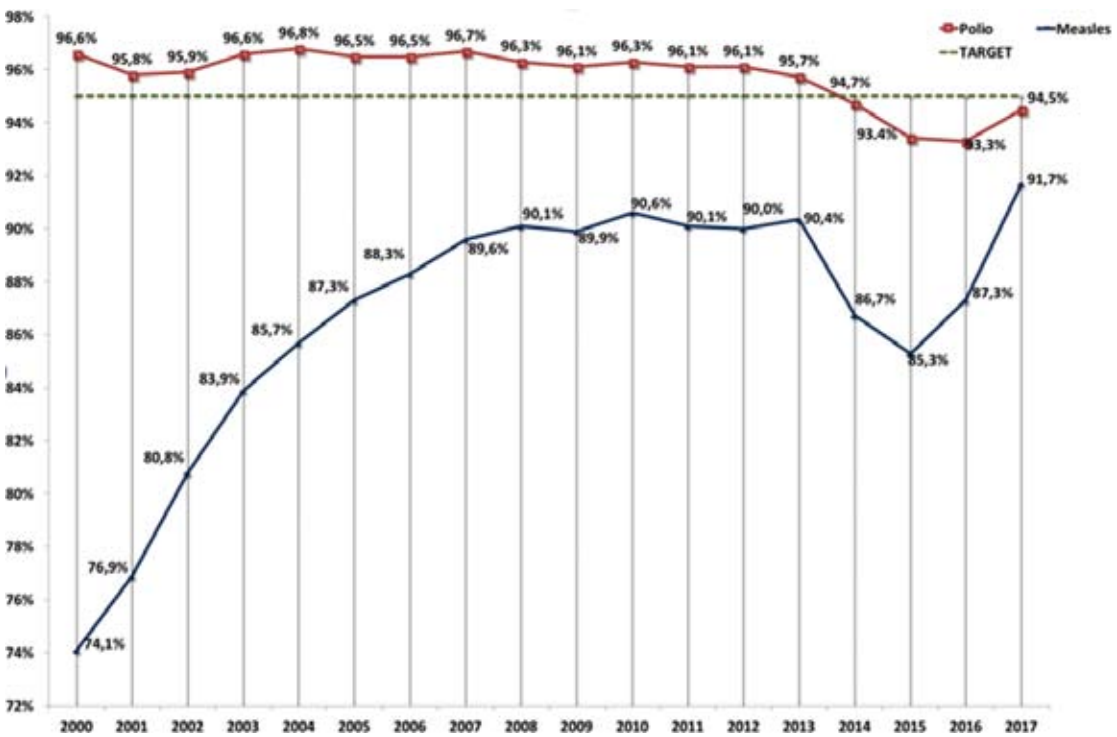

Figure 1 - National-level immunization coverage rates over time for Polio and Measles vaccines (2000-2017)

Table 1 - National level*, 24 months of age Childhood immunization coverage rates, by year (2000-2017)

ANTIGEN	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Polio	96.6%	95.8%	95.9%	96.6%	96.8%	96.5%	96.5%	96.7%	96.3%	96.1%	96.3%	96.1%	96.1%	95.7%	94.7%	93.4%	93.3%	**94.5%**
Tetanus	95.3%	95.9%	96.8%	96.6%	96.6%	96.2%	96.6%	96.7%	96.7%	96.2%	96.4%	96.3%	96.2%	95.8%	94.8%	93.6%	93.7%	**94.6%**
Diphtheria	95.3%	95.9%	96.8%	96.6%	96.6%	96.2%	96.6%	96.7%	96.7%	96.2%	96.4%	96.3%	96.2%	95.8%	94.7%	93.4%	93.6%	**94.6%**
Pertussis	87.3%	93.3%	92.9%	95.8%	94.0%	94.7%	96.2%	96.5%	96.1%	96.0%	96.2%	95.8%	96.0%	95.7%	94.6%	93.3%	93.6%	**94.6%**
Hep B	94.1%	94.5%	95.4%	95.4%	96.3%	95.7%	96.3%	96.5%	96.1%	95.8%	95.8%	96.0%	96.0%	95.7%	94.6%	93.2%	93.0%	**94.3%**
Hib	54.7%	70.2%	83.4%	90.4%	93.8%	94.7%	95.5%	96.0%	95.7%	95.6%	94.6%	95.6%	94.8%	94.9%	94.3%	93.0%	93.1%	**94.2%**
Measles	74.1%	76.9%	80.8%	83.9%	85.7%	87.3%	88.3%	89.6%	90.1%	89.9%	90.6%	90.1%	90.0%	90.4%	86.7%	85.3%	87.3%	**91.7%**
Mumps	74.1%	76.9%	80.8%	83.9%	85.7%	87.3%	88.3%	89.6%	90.1%	89.9%	90.5%	89.9%	89.2%	90.3%	86.7%	85.2%	87.2%	**91.6%**
Rubella	74.1%	76.9%	80.8%	83.9%	85.7%	87.3%	88.3%	89.6%	90.1%	89.9%	90.5%	89.9%	89.2%	90.3%	86.7%	85.2%	87.2%	**91.6%**
Pneumo														86.9%	87.5%	88.7%	88.4%	**90.9%**
Men C														77.1%	73.9%	76.6%	80.7%	**83.1%**
Men B																	14.7%	**38.6%**
Rotavirus																	10.6%	**14.3%**

Notes: Hib: *Haemophilus influenzae* type b; Men C: Meningococcal C Conjugate; Men B: Meningococcal B; Hep B: Hepatitis B; *weighted average

the Hexavalent vaccine, remained above the 95% PNPV coverage target between 2000 and 2013 and has declined below 95% since then. In particular, it had been steadily declining between 2011 and 2016 (-2.8%). Measles coverage rates, used as a proxy for Measles, Mumps, and Rubella (MMR) vaccine, remained well below the 95% coverage target for the entire study period. In recent times, it declined by 4.8% between 2011 and 2015 with the lowest coverage rate reported for year 2015 (85.3%).

Regional-level coverage rates are reported in Table 2. As previously reported (3, 4), there is large heterogeneity in vaccine coverage within Italian Regions, this holding true for both mandatory and recommended vaccines. Of note, 2011-2016 decreasing trends in vaccine coverage at the national level have been reported – although at different rates – in most Italian regions.

Coverage rates after the new law on mandatory vaccination

The 2017 childhood vaccine coverage rates, at the national level and by Region are reported in Table 2: in 2017 national-level coverage rate for Polio was 94.5% with regional-level values ranging from 85.9% to 97.7% and 11 Regions reaching the 95% coverage target. National-level Measles vaccine coverage was 91.7% in 2017 with regional-level values ranging from 71.9% to 94.7% and one Region reaching the 95% coverage target. Childhood pneumococcal and meningococcal C conjugate vaccines coverage rates were, respectively, 90.9% (regional range: 80.9%-96.7%) and 83.1% (regional range: 56.9%-93.3%).

Table 3 reports 2016-2017 percentage change in selected vaccines' coverage, at the national level and by Region. Between 2016 and 2017 Polio vaccine coverage increased by 1.2% at the national level, Measles vaccine by 4.4%. With regard to Polio vaccine, three Regions reported a 2016-2017 increase higher than 2%, six Regions

Table 2 - 24 months of age Childhood immunization coverage rates, by Region - Year 2017

REGION	Polio	Tetanus	Diphtheria	Pertussis	Hepatitis B	Hib	Measles	Mumps	Rubella	Varicella	Pneumo	Men C	Men B	Rotavirus
Piedmont	95.8 %	95.9 %	95.8 %	95.8 %	95.4 %	95.3 %	94.7 %	94.7 %	94.7 %		92.8 %	92.4 %	0.0 %	8.5 %
Aosta Valley	93.7 %	94.1 %	93.6 %	93.6 %	92.9 %	93.4 %	90.3 %	90.1 %	90.3 %		91.3 %	89.8 %	2.9 %	0.2 %
Lombardy	94.9 %	95.2 %	95.1 %	95.1 %	94.6 %	94.4 %	93.9 %	93.8 %	93.9 %		92.5 %	92.2 %	n.a.	n.a.
Aut. Prov. of Bolzano	85.9 %	85.9 %	85.9 %	85.8 %	85.5 %	85.4 %	71.9 %	71.8 %	71.8 %		80.9 %	67.7 %	4.7 %	1.0 %
Aut. Prov. Of Trento	93.9 %	94.1 %	93.8 %	93.8 %	93.5 %	93.5 %	91.7 %	91.6 %	91.6 %		90.9 %	89.6 %	32.7 %	0.7 %
Veneto	93.5 %	93.8 %	93.5 %	93.5 %	93.1 %	93.1 %	92.3 %	92.2 %	92.3 %	88.6 %	86.6 %	92.0 %	82.3 %	6.3 %
Friuli Venezia Giulia	90.4 %	90.6 %	90.5 %	90.5 %	89.5 %	89.7 %	86.6 %	86.6 %	86.6 %	79.5 %	83.8 %	89.0 %	68.9 %	4.1 %
Liguria	95.0 %	95.1 %	95.0 %	95.0 %	94.8 %	94.5 %	90.9 %	90.7 %	90.7 %		93.0 %	84.1 %	82.4 %	20.1 %
Emilia Romagna	94.8 %	94.9 %	94.7 %	94.7 %	94.4 %	94.0 %	91.3 %	91.1 %	91.2 %		92.7 %	91.6 %	3.2 %	6.2 %
Tuscany	95.8 %	95.8 %	95.7 %	95.7 %	95.4 %	95.4 %	93.5 %	93.4 %	93.5 %	87.1 %	90.4 %	92.7 %	73.0 %	8.3 %
Umbria	95.8 %	95.8 %	95.7 %	95.7 %	95.8 %	95.7 %	94.5 %	94.5 %	94.5 %		94.3 %	92.3 %	7.7 %	0.0 %
Marche	93.0 %	93.0 %	92.9 %	92.9 %	92.7 %	92.5 %	88.2 %	88.2 %	88.1 %		90.7 %	82.5 %	15.3 %	1.5 %
Lazio	96.9 %	96.8 %	96.8 %	96.8 %	96.9 %	96.8 %	95.3 %	95.3 %	95.3 %		92.3 %	80.4 %	36.1 %	7.4 %
Abruzzo	97.4 %	97.3 %	97.3 %	97.3 %	97.3 %	97.3 %	89.2 %	89.2 %	89.2 %		91.2 %	70.9 %	11.4 %	1.0 %
Molise	97.2 %	97.2 %	97.2 %	97.2 %	97.2 %	97.2 %	90.5 %	90.5 %	90.5 %		96.0 %	82.7 %	1 %	0.1 %
Campania	95.4 %	95.4 %	95.4 %	95.4 %	95.4 %	95.5 %	92.0 %	92.0 %	92.0 %		88.2 %	61.3 %	3.5 %	0.8 %
Apulia	94.4 %	94.4 %	94.4 %	94.4 %	94.3 %	94.2 %	91.1 %	91.1 %	91.1 %	88.8 %	92.0 %	83.6 %	80.1 %	29.7 %
Basilicata	97.7 %	97.7 %	97.7 %	97.7 %	97.7 %	97.7 %	92.9 %	92.9 %	92.9 %	85.9 %	96.7 %	93.3 %	82.5 %	2.6 %
Calabria	96.1 %	96.1 %	96.1 %	96.1 %	96.1 %	96.2 %	92.8 %	92.8 %	92.8 %	77.9 %	94.6 %	56.9 %	57.6 %	41.5 %
Sicily	91.3 %	91.3 %	91.3 %	91.3 %	91.3 %	91.3 %	85.6 %	85.6 %	85.6 %	81.8 %	88.0 %	72.8 %	50.8 %	50.9 %
Sardinia	96.0 %	96.0 %	96.0 %	96.0 %	95.9 %	95.9 %	92.9 %	92.9 %	92.9 %	81.6 %	95.4 %	90.1 %	28.7 %	20.9 %
Italy*	94.5 %	94.6 %	94.6 %	94.6 %	94.3 %	94.2 %	91.7 %	91.6 %	91.6 %		90.9 %	83.1 %	38.6 %	14.3 %

Notes: Hib: *Haemophilus influenzae* type b; Men C: Meningococcal C Conjugate; Men B: Meningococcal B

Table 3 - 2016-2017 percentage (%) difference in 24 months childhood vaccine coverage, by region and by vaccine

REGION	Polio	Measles	Pneumo	Men C
Piedmont	+0.7%	+3.6%	+1.0%	+3.1%
Aosta Valley	+2.8%	+6.9%	+3.9%	+5.1%
Lombardy	+2.1%	+0.5%	+6.8%	+4.0%
Aut. Prov. of Bolzano	+0.8%	+4.4%	+0.4%	+4.5%
Aut. Prov. of Trento	+0.9%	+4.3%	+1.7%	+3.6%
Veneto	+1.5%	+3.1%	+2.1%	+1.4%
Friuli Venezia Giulia	+1.0%	+3.4%	+2.4%	+3.6%
Liguria	+0.7%	+8.7%	+1.2%	+6.5%
Emilia Romagna	+1.5%	+3.8%	+2.1%	+3.9%
Tuscany	+1.4%	+4.1%	+1.4%	+2.0%
Umbria	+1.3%	+4.6%	+2.7%	+3.1%
Marche	+0.6%	+5.2%	+1.3%	+1.7%
Lazio	0.0%	+7.4%	-1.5%	-0.7%
Abruzzo	+0.3%	+1.6%	+1.9%	+8.3%
Molise	-0.1%	+17.0%	+4.5%	+11.0%
Campania	+2.7%	+8.1%	+6.1%	+0.3%
Apulia	+1.1%	+5.2%	+0.6%	+5.0%
Basilicata	+0.3%	+2.3%	-0.3%	+5.2%
Calabria	+0.3%	+6.3%	+4.6%	-13.8%
Sicily	-0.3%	+4.5%	-0.5%	+5.6%
Sardinia	+0.3%	+2.6%	+1.2%	+2.2%
Italy*	+1.2%	+4.4%	+2.5%	+2.4%

between 1% and 2%, nine Regions less than 1% and three Regions did not report any increase. With regard to Measles vaccine, all Regions reported an increase: 8 Regions reported a 2016-2017 increase higher than 5%, 9 Regions between 3% and 5% and 4 Regions less than 3%.

Coverage rates at 36 months of age are available since 2013. In Table 4 coverage rates at, respectively, 24 and 36 months of age are compared for birth cohorts 2010-2014. As emerges from the table, for all assessed birth cohorts 95% coverage targets were met at 36 months of age for almost all the antigens contained in the Hexavalent vaccine, apart from birth cohort 2013. Much higher 24-36 months of age coverage percentage differences were reported for Measles, Mumps and Rubella vaccines, as compared to other vaccines, although none reached the 95% coverage target.

Discussion

For now the third consecutive time we present an updated and comprehensive set of Italian national-level immunization coverage data, focusing on vaccine programs for infants and children over the last seventeen years (2010-2017). Confirming previous findings, we report a high degree of heterogeneity within the different Italian Regions and by vaccine but, of crucial importance and differently from what previously reported, we show vaccine coverage has increased since 2016 for both mandatory and recommended childhood vaccines. Such increase has been consistent – although at different rates - in all Regions and is highest for MMR vaccine, as compared to other vaccines.

Ours are among the first national-level data on vaccine coverage made available after the new law on mandatory vaccination

Table 4 - National level* 36 months of age Childhood immunization coverage rates and 24-36months of age coverage percentage differences, by birth cohort

	2010 Birth cohort		2011 Birth cohort		2012 Birth cohort		2013 Birth cohort		2014 Birth cohort	
ANTIGEN	36 months	% change 24-36	36 months	% change 24-36	36 months	% change 24-36	36 months	% change 24-36	36 months	% change 24-36
Polio	96.3%	+0.2%	95.7%	0.0%	95.4%	+0.7%	94.1%	+0.7%	95.1%	+1.8%
Tetanus	96.4%	+0.2%	95.8%	0.0%	95.4%	+0.6%	94.3%	+0.7%	95.2%	+1.5%
Diphtheria	96.3%	+0.1%	95.7%	0.0**	95.3%	+0.6%	94.0%	+0.6%	95.0%	+1.4%
Pertussis	96.2%	+0.2%	95.6%	0.0**	95.3%	+0.7%	94.0%	+0.7%	95.0%	+1.4%
Hepatitis B	96.2%	+0.2%	95.5%	0.0**	95.2%	+0.6%	93.8%	+0.6%	94.7%	+1.7%
Hib	95.8%	+1%	95.3%	+0.4%	95.0%	+0.7%	93.5%	+0.5%	94.4%	+1.3%
Measles	92.3%	+2.3%	90.7%	+0.3%	89.2%	+2.5%	88.0%	+2.7%	92.4%	+5.1%
Mumps	92.2%	+3.0%	90.6%	+0.3%	89.1%	+2.4%	87.9%	+2.7%	92.2%	+5.0%
Rubella	92.2%	+3.0%	90.6%	+0.3%	89.1%	+2.4%	88.0%	+2.8%	92.3%	+5.1%
Pneumo	82.9%	n.a.	88.1%	+1.2%	88.3%	+0.8%	88.7%	0.0%	90.4%	+2%
Men C	70.4%	n.a.	74.7%	0.0**	79.0%	+5.1%	81.3%	+4.7%	85.6%	+4.9%

Notes: Hib: *Haemophilus influenzae* type b; Men C: Meningococcal C Conjugate; * weighted average; **negative value, assumed to be 0.

was approved (13). In fact, in November 2017 (8) and February 2018 (9) we had already briefly commented on encouraging preliminary data from selected Italian Regions: namely +3.8%, +4.2% and +1.7% increase in Hexavalent vaccine coverage between 2016 and 2017 in, respectively, the Emilia Romagna, Piedmont and Puglia Regions, the latter also reporting +6.1% coverage increase in Measles vaccine and we had estimated that around one third of unvaccinated children of birth cohorts 2011 to 2015 had been vaccinated since the law was enforced (between June and October 2017). The findings included in the current study, based on vaccine coverage figures made available by the MoH after the new law on mandatory vaccination was approved, do confirm such positive trends and are now available for all Italian regions and as average national figures. Of note, between 2016 and 2017 coverage rates increased not only for the vaccines defined as mandatory in the new law, but also for recommended vaccines included in the PNPV. Data on Pneumococcal and Meningococcal C conjugate vaccines, included in the PNPV for the first time in 2012, suggest that – although far from meeting PNPV targets - both vaccines have been well introduced in infant immunization schedules in all Regions reaching, respectively, +2.5% and +2.4% increase in vaccine coverage between 2016 and 2017. As vaccine coverage for mandatory and recommended vaccines is included in the set of the health indicators identified to monitor access to care at the national level (4), we urge strengthened efforts must be devoted in the years to come to its rigorous collection through Immunization Information Systems implementation, to its analysis, its interpretation and dissemination at the national and international level (14). Of course, the ethical and scientific debate on mandatory vaccinations is not limited to monitoring coverage rates and is currently on the going in Italy and in other countries.

Other European and extra-European countries have recently approved mandatory childhood immunization, including France and Australia (15). Back in 2015, also the State of California, despite having a strong tradition for personal freedom protection, approved Senate Bill (SB) 277, which removed personal belief exemptions to vaccination requirements for school entry (16).The law is indeed a powerful tool States have to stop the spread of preventable infectious diseases, but is paternalism the right way to go?

As we report the case mandatory immunization in Italy three key questions arise: i) Why was the law enforced? ii) Were there better alternatives? and iii) Is the law working? To answer the first question: immunization coverage rates in Italy were low and, most importantly have been steadily and alarmingly decreasing over the last five years. In addition, Italy is experiencing a recrudescence of measles with the sixth highest number of reported cases at the global level, after India, Nigeria, Pakistan, Ukraine and China (5), this calling for immediate action. With regard to the second question - Were there better alternatives? – we report on the negative experience of the Veneto Region which piloted in 2007 an empowering approach to prevention, suspending mandatory vaccines (at that time: diphtheria, tetanus, polio, HBV) and investing in health education campaigns to promote voluntary and informed vaccine uptake, but eventually reported a disappointing coverage decrease, higher than the decrease reported at national level (-5.0% in the Veneto Region vs. -3.2% in Italy for polio vaccine in 2006-2016) (4). Third and most crucial: is the law working? Our study's findings – as outlined - provide preliminary evidence that this is the case. However, more coverage data still need to accumulate; in fact, the deadline date for school certificates was March 2018 and it is likely that a large share of children

got vaccinated in the first quarter of 2018, not being thus included in the figures we analyzed. In this context we underline the importance of annually reviewing the compliance to and impact of the new law and we do commit to work on this in the near future. One last question remains unanswered: is paternalism the right way to go? Both *Nature* and other important scientific journals in their editorials (16, 17) considered making vaccines mandatory not an ultimate aim, but rather a "stopgap", a temporary tool governments have to fulfill their responsibility to protect population health. As public health representatives, we acknowledge action needed to be taken at the governmental level, but at the same time, we do not forget the responsibilities we do have to fulfill: i) to produce and retrieving solid evidence to plan and implement effective interventions to enhance proactive vaccine uptake (18-24) and ii) to strengthen efforts to educate target populations and counter misinformation (25, 26) and iii) to be credible so as to inspire trust (27).

Riassunto

Coperture vaccinali dell'età pediatrica in Italia dopo la nuova legge sull'obbligo

Introduzione. Il Piano Nazionale Prevenzione Vaccinale (PNPV) italiano garantisce la prevenzione vaccinale tramite il Sistema Sanitario Nazionale. Nonostante ciò, in Italia le coperture sono calate drasticamente negli ultimi anni. In risposta al calo delle coperture vaccinali, il Parlamento italiano nel luglio 2017 ha approvato la Legge n. 119 che estende da quattro a dieci i vaccini obbligatori per l'infanzia, stimolando un vivace dibattito sull'argomento.

Metodi. Abbiamo raccolto, analizzato e interpretato l'andamento nazionale delle coperture vaccinali in Italia negli anni 2000-2017, per vaccino, popolazione target, coorte di nascita e regione. In particolare, al fine di valutare preliminarmente l'impatto della nuova legge, abbiamo calcolato le variazioni percentuali nelle coperture 2016-2017 per i programmi di immunizzazione sia obbligatori che raccomandati. I dati sono stati forniti dalla Direzione Generale della Prevenzione Sanitaria del Ministero della Salute italiano.

Risultati. A livello nazionale, nel 2017 le coperture vaccinali rilevate per poliomielite e morbillo sono state, rispettivamente, del 94,5% e del 91,7%, registrando un aumento rispettivamente del 1,2% e 4,4% se confrontate con i dati del 2016. Nello stesso periodo le coperture vaccinali per pneumococco e meningococco C sono aumentate del 2,5% e 2,4%. A livello nazionale la copertura per polio si è mantenuta sopra il target del 95% solo nel periodo 2000-2013, senza più raggiungerlo dopo il 2013 e registrando un calo del 2.8% tra il 2011 e il 2016. I tassi di copertura del vaccino contro il morbillo non hanno mai raggiunto i target di copertura per tutto il periodo oggetto dello studio, con un calo del 4.8% nel periodo 2011-2016, con il minor tasso registrato nell'anno 2015 (85.3%). Resta elevata l'eterogeneità regionale delle coperture sia per i vaccini obbligatori che raccomandati.

Conclusioni. I dati preliminari mostrano che le coperture vaccinali dell'infanzia sono aumentate a seguito dell'approvazione della nuova Legge relativa all'obbligo vaccinale. Ciononostante, mentre l'accumularsi di ulteriori dati renderà possibile quantificare meglio l'impatto della Legge n. 119 in Italia, sono necessari ulteriori sforzi per promuovere l'adesione consapevole e proattiva ai programmi di immunizzazione, anche per contrastare il fenomeno della vaccine hesitancy.

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