Outpatient "Specialist Practitioners" in Italy in the years before and after the COVID-19 pandemic. The case of the Piedmont Region.

Giorgio Visca¹, Lorenzo Angelone¹, Renato Obrizzo¹, Antonio Magi²

Key words: Outpatient specialist care; community healthcare; healthcare policy; specialist healthcare need; medical staff shortage

Parole chiave: Assistenza specialistica ambulatoriale; assistenza territoriale; politiche sanitarie; fabbisogno di assistenza specialistica; carenza di personale medico

Abstract

Aim. Outpatient Contracted Specialist care represents in Italy, together with Family Medicine and Paediatrics, one of the three fundamental pillars of primary and community healthcare. Like General Practitioners of the National Health Service in England and Italy, these "Specialist Practitioners", mostly medical doctors but also Psychologists and other professionals, play a key role in the management of chronic patients in community settings, as in a "barefoot specialists" model.

Few data are however available to precisely define their workforce "input" in community and hospital settings. To partially overcome this issue, the Regional Joint Committee for Outpatient Contracted Specialists of the Piedmont Region has conducted since 2017 an annual survey to monitor the amount of healthcare hours delivered for each specialty. The present study describes the results of the data analysis from 2017 to 2023, also as compared to the visits provided before and after the COVID-19 pandemic.

Subject and Methods. Data were gathered through electronic spreadsheets submitted annually by each regional Local Health Authority to the Committee. Regional totals were compared to the available national totals for the year 2023. Finally an analysis was performed on the available data on first visits provided by Local Health Authorities and Hospital Trusts and on booked first visits per inhabitants in 2023.

Results. From 2017 to 2023, the weekly hours of Outpatient Contracted Specialist medical care regionally provided declined from 20,535 to 17,264 (-15.93%). The greatest reductions were recorded for Dentistry, Dermatology and Ophthalmology. In contrast, the hours delivered by contracted psychologists increased from 8,136 to 9,532 (+17.16%). In 2023 the provision of Outpatient Contracted Specialist medical care per inhabitants in Piedmont was 34.66% lower than the national average, whereas Psychologists' hours were 199.12% higher. Vacant medical weekly hours increased from 856 to 2,940 (+243.46%) reaching 14.74% of the total hours of Outpatient Contracted Specialist medical care demanded by Local Health Authorities in 2023. Local Health Authorities' demand for Outpatient Contracted Specialist Medical Care in the years 2017-2023 went down by 5.05%. The lowering was recorded mainly for Dentistry, Obstetrics & Gynaecology, Psychiatry and Child Neuropsychiatry. The number of first visits provided by Local Health Authorities in the first semester of 2023 was 27.34% lower than that of 2018. In contrast, an increase of 4.18% was observed in the number of first visits provided by Hospital Trusts. The number of Local Health Authorities' booked first visits every 1,000 inhabitants in 2023 was 34.48% lower than the average national number and more than two-thirds lower than that of a neighbouring region.

Annali di Igiene: Medicina Preventiva e di Comunità (Ann Ig) ISSN (print) 1120-9135 ISSN (online) 3035-5559 Copyright © 2025 Società Editrice Universo (SEU), Roma, Italy https://www.annali-igiene.it



¹ Comitato Paritetico Regionale per la Specialistica Ambulatoriale Interna, Regione Piemonte, Torino, Italy

² ASL Roma 1, Distretto 3, Roma, Italy

Conclusions. This study highlights a progressive decline in the public provision of Outpatient Contracted Specialist medical care in Piedmont during the years 2017-2023, despite the increase of waiting lists lengths, out-of pocket private expenditure and renounce to health services. The phenomenon has been enhanced, but not induced, by the COVID-19 pandemic and had its origins mainly in the lack of medical applications, in the shifting of part of financial resource towards psychologic care, but also in an objective decline in the demand of medical job positions from regional Local Health Authorities. The observed reduction is likely to hinder access to public outpatient specialist medical care, mostly in community settings, and to undermine basically the implementation of Proximity Health Networks as outlined in Ministerial Decree n. 77 of 2022.

Introduction

The legislation that established the Italian National Health Service (NHS) in 1978 (1) mandated that Local Health Authorities (LHAs) deliver outpatient and home-based specialist medical care within their jurisdictions. This form of care has been consistently upheld through subsequent reforms (2) and has been recognized as one of the "Essential Levels of Care" since their formal introduction in 2001 (3,4).

This kind of care has been provided since then at community level in Italy mostly by Outpatient Contracted Specialists (OCS) - mainly Medical Doctors, but lately also Psychologists and other professionals – formally referred to as "Internal" due to their affiliation with the NHS, who work alongside with public staff employed by the NHS.

Like General Practitioners (GPs) of the National Health Service in England and Italy, these "Specialist Practitioners" operate as independent contractors, primarily in outpatient settings such as LHAs' Community Clinics, Nursing Homes and Home Care, under the rule of national (5) and regional contracts, each for a various range of hours per week (from one hour part-time to full-time).

With the so-called "Balduzzi Law" of 2012 (6), a fundamental principle in the reorganization of national community healthcare was introduced, with the full inclusion of OCS within the primary care domain, alongside Family Medicine and Paediatrics, acknowledging their role in the management of chronic patients in community settings, as in what can be defined a "barefoot specialists" model, a peculiarity of Italian NHS.

In 2022 Ministerial Decree n. 77 (7) introduced a pivotal reform of Community health care in Italy which, through the establishment of Community Homes and Hospitals, enhanced the role played by OCS within a new model of Italian community medicine in integration with the other components of primary and hospital care both. This reform was implemented as part of the National Recovery and Resilience Plan (PNRR) (8) established on the wave

of the COVID-19 pandemic crisis, which exposed relevant weaknesses in Community Healthcare provision in many Italian Regions and delayed outpatient specialist interventions, worsening the pre-existing issue of lengthy waiting lists.

Notably, unlike all other community healthcare workers, including GPs, Family Paediatrics and the recently introduced Family or Community Nurses, neither the reform nor the following Guidelines for Hub Community Homes (9) issued by the National Agency for Regional Health Services (AGENAS) set minimum staffing standards for outpatient specialists care in Community settings.

This "omission" reflects a broader substantial lack of data about outpatient specialist care in Italy which hampers the ability to accurately assess not only the workforce "input", but even to define precisely the "output", i.e. the number of visits and waiting lists lengths, and its real demand (10,11).

National information systems in Italy actually collect data only for the number of specialist visits provided by the NHS, but none on the booked or prescribed ones. Furthermore, the available informations about NHS' waiting lists, still mostly different among the various Italian regions, do not monitor their absolute, average and median lengths, but just the number of visits provided and not provided within the prescribed priority classes (10).

On the other hand, it is also impossible to assess the human resource or the ammount of hours for public outpatient specialist care delivered in each LHA or Hospital Trust with specialty details. Current information systems for NHS medical employee (12) actually do not specify the number of hours committed to outpatient care, while the systems for OCS (13) gather only the total number of hours without specialty details.

To partially overcome this lack of data, the Regional Joint Committee for OCS (14) established within the Health Department of the Piedmont Region (15) has started since 2017 a systematic annual survey targeting regional LHAs and Hospital Trusts in order to monitor in detail the available OCS resources and the hours of provided specialist healthcare.

This study, the first of this kind in Italy, outlines the results of the data analysis and describes in detail the trends in the OCS workforce in the Piedmont region for the period 2017-2023, also as compared to the available data on regionally provided visits and the lengths of waiting lists before and after the COVID-19 pandemic.

Methods

The regional annual survey requires, since 2017, that each Local Health Authority and Hospital Trusts submit to the Regional Joint Committee, within the first quarter of each year, a common electronic spreadsheet containing standardized fields with the basic information for OCS workforce.

Starting from this data, the total number of weekly hours of OCS care, both provided and vacant, has been calculated from 2017 to 2023, stratified by year, LHA, professional role and, for Specialist Medical Doctors, by specialization.

By adding provided and vacant hours, the *LHAs'* demand of OCS medical weekly hours was then determined for each year and specialization, meant as the hours of OCS care totally requested and deemed as needed by each LHA in each specialization.

All the results were then weighted on regional and LHA's resident population according to National Institute of Statistics (ISTAT) data processed by the Piedmont Region (16) for each year in study.

Regional totals of 2023 were also compared with the available national data from the Interregional Agency for Contracted Healthworkers (SISAC) (17).

Furthermore, starting from the available data on outpatient first visits provided during the first semester of 2018 and 2023 (18,19) for the 20 specializations monitored by the Region, the total number of provided first visits and the differences 2018-2023 were calculated, stratified by LHAs and Hospital Trusts. A similar analysis was performed for the number of first visits provided within the prescribed priorities timelines (U within 3 days, B within 10 days, D within 30 days).

Finally, the data on LHAs' booked first visits for seven specialities, excluding Oncology, from the experimental survey performed by AGENAS and The Bridge Foundation during the week of May 22 to May 26, 2023 (20) were used to calculate the total number of LHAs' booked first visits per 1,000 inhabitants, as well as to determine the median and average of the medians waiting lists lengths in Piedmont, Italy and other Regions.

Results

Regional total OCS provided weekly hours

The total number of weekly hours supplied by OCS in all professions in the Piedmont Region decreased from 2017 to 2023 by 7.56% overall, going from 31,704.6 to 29,309.2 hours per week.

Table 1 – Total number of provided weekly hours for overall Outpatient Contracted Specialists (OCS) and by profession from 2017 to 2023	
in the Piedmont Region	

Year	2017	2018	2019	2020	2021	2022	2023
Overall OCS (All Professions)	31704.6	32009.92	31402.17	30937.92	30406.67	30232.92	29309.02
Difference since 2017		305.32	-302.43	-766.68	-1297.93	-1471.68	-2395.58
Percentage difference since 2017		0.96%	-0.95%	-2.42%	-4.09%	-4.64%	-7.56%
Medical Specialists	20534.8	20449.42	19646.67	18914.42	18063.67	17789.92	17263.52
Percentage on Overall OCS	64.77%	63.88%	62.56%	61.14%	59.41%	58.84%	58.90%
Difference since 2017		-85.38	-888.13	-1620.38	-2471.13	-2744.88	-3271.28
Percentage difference since 2017		-0.42%	-4.32%	-7.89%	-12.03%	-13.37%	-15.93%
Psychologists	8136.3	8500	8883.3	9242.5	9498	9787	9532.5
Percentage on Overall OCS	25.66%	26.55%	28.29%	29.87%	31.24%	32.37%	32.52%
Difference since 2017		363.7	747	1106.2	1361.7	1650.7	1396.2
Percentage difference since 2017		4.47%	9.18%	13.60%	16.74%	20.29%	17.16%
Other Professions	3033.5	3060.5	2872.5	2781	2845	2656	2513
Percentage on Overall OCS	9.36%	9.36%	8.94%	8.78%	9.14%	8.56%	8.35%
Difference since 2017		27	-161	-252.5	-188.5	-377.5	-520.5
Percentage difference since 2017		13.08%	11.65%	-0.16%	6.66%	-10.79%	-27.16%

Table 2 – Comparison between Outpatient Contracted Specialists (OCS) provided weekly hours per population and percentage distribution
by professionalism in the Piedmont Region and in Italy for the year 2023

Year 2023	Provided OC every 1,000 i	S weekly hou nhabitants	rs	OCS hours percentage distribution by professionalism				
	Piedmont	Italy	Percentage Difference	Piedmont	Italy			
Medical Doctors	3.94	6.03	-34.66%	57.51%	79.20%			
Psycologysts	2.3	0.77	199.12%	33.62%	10.11%			
Other Professions	0.61	0.81	-25.32%	8.87%	10.69%			
Overall OCS	6.85	7.61	-10.02%	100.00%	$\boldsymbol{100.00\%}$			

During these years the reduction was although considerably higher for specialist medical care, with a decrease of 15.93%, in contrast to a 17.16% increase in the total hours for Psychologists.

A reduction of 27.16% was also observed for the other OCS professionals, including Veterinarians, Biologists and Chemists (Table 1).

Comparison with national SISAC data (year 2023)

In 2023, the total number of OCS hours regionally provided for all professions accounted for 6.49% of the national total of OCS hours in Italy. Stratifying by profession, the total number of hours of OCS medical care in Piedmont represented 4.71% of the national medical total, while the regional hours of OCS Psychology care constitutes 21.56% of the total hours for psychologists nationwide.

Furthermore, the total number of OCS weekly hours per 1,000 inhabitants in Piedmont was 34.66% lower than the national average for medical care, while the 199.12% higher for psychologists (Table 2).

Vacant weekly hours

The total number of vacant OCS hours for all professions during the years 2017-2023 increased by

254.79% from 876 to 3,108 weekly hours, representing 2.72% and 9.72% of the total demand of OCS hours by LHAs, respectively.

The phenomenon has however mainly affected Medical Specialists, with a progressive and exponential 2017-2023 growth from 856 to 2,940 vacant weekly hours (243.46%), reaching 14.74% of the total hours of OCS Medical Care demanded by all LHSs in 2023 (Table 3).

Data on vacant hours by specialization are provided in Supplementary Material S1.

LHA's demand of OCS weekly hours

Demand for OCS weekly hours from LHAs has shown a slight overall decline from 2017 to 2023, with a global reduction of 209.58 hours (0.65%), decreasing from 32,195.6 to 31,986.02 hours per week.

However, a different trend was observed among all professions. Specifically, a reduction of 1,061.78 weekly hours in LHAs' demand of OCS Medical care (-5.05%), while a parallel increase of 1,221.2 weekly hours (16.02%) for OCS Psychologists was recorded in the same years.

Table 3 shows the results for OCS vacant and LHA demanded medical weekly hours.

Table 3 – Vacant and LHAs' demanded Outpatient Contracted Specialists (OCS) medical weekly hours from 2017 to 2023 in Piedmont Region's overall Local Health Authorities (Hospital Trusts excluded)

Year	Vacant I	Medical Weel	dy Hours	LHA's Deman	nded Medical	Vacant On Demanded	
	Total number	Diff. since	Percentage diff.	Total number	Diff. since	Percentage diff.	Hours Percentage
		2017	since 2017		2017	since 2017	
2017	856	/	/	21004.8	/	/	4.08%
2018	1126	270	31.54%	21020.92	16.12	0.08%	5.36%
2019	1204	348	40.65%	20251.67	-753.13	-3.59%	5.95%
2020	1474	618	72.20%	19920.42	-1084.38	-5.16%	7.40%
2021	1503	646.5	75.53%	19312.67	-1692.13	-8.06%	7.78%
2022	1890	1033.5	120.74%	19450.42	-1554.38	-7.40%	9.71%
2023	2940	2084	243.46%	19943.02	-1061.78	-5.05%	14.74%

 $Table\ 4-Number\ of\ provided\ first\ visits\ by\ all\ Regional\ Health\ Service\ (RHS)\ and\ by\ regional\ LHAs\ only\ in\ the\ monitored\ specialties\ in\ the\ years\ 2018\ and\ 2023\ and\ percentage\ differences\ 2018-2023\ in\ all\ the\ RHS,\ LHAs\ and\ Hospital\ Trusts$

	201	18	20)23	% Diff	erences 2018-	2023
	Regional Health Service	LHAs Only	Regional Health Service	LHAs Only	Regional Health Service	LHAs Only	Hospital Trusts Only
Psychiatry	22,179	19,762 (89.10%)	20,629	19,626 (95.14%)	-6.99%	-0.69%	-6.30%
Ophthalmology	113,582	99,697 (87.78%)	71,148	56,992 (80.10%)	-37.36%	-42.83%	5.47%
Allergology	22,689	14,437 (63.63%)	20,622	11,825 (57.34%)	-9.11%	-18.09%	8.98%
Cardiology	75,718	62,053 (81.95%)	59,007	45,555 (77.20%)	-22.07%	-26.59%	4.52%
General Surgery	54,825	36,916 (67.33%)	47,648	30,741 (64.52%)	-13.09%	-16.73%	3.64%
Plastic Surgery	7,121	1,522 (21.37%)	6,856	1,401 (20.43%)	-3.72%	-7.95%	4.23%
Vascular Surgery	10,088	5,160 (51.15%)	9,599	3,879 (40.41%)	-4.85%	-24.83%	19.98%
Dermatology	83,760	59,117 (70.58%)	61,944	41,564 (67.10%)	-26.05%	-29.69%	3.65%
Gastroenterology	20,046	11,149 (55.62%)	17,389	9,855 (56.67%)	-13.25%	-11.61%	-1.65%
Endocrinology	22,661	11,533 (50.89%)	20,007	11,603 (57.99%)	-11.71%	0.61%	-12.32%
Neurosurgery	5,572	334 (5.99%)	5,122	310 (6.05%)	-8.08%	-7.19%	-0.89%
Dentistry	45,111	30,249 (67.05%)	32,429	19,304 (59.53%)	-28.11%	-36.18%	8.07%
Oncology	15,385	7,047 (45.80%)	11,396	3,720 (32.64%)	-25.93%	-47.21%	21.28%
Orthopedics	83,989	66,293 (78.93%)	67,040	49,535 (73.89%)	-20.18%	-25.28%	5.10%
Otorhinolaryngoyatry	90,356	71,300 (78.91%)	73,661	56,680 (76.95%)	-18.48%	-20.50%	2.03%
Pulmunology	24,320	14,308 (58.83%)	23,975	15,001 (62.57%)	-1.42%	4.84%	-6.26%
Phisiatrics	115,080	105,387 (91.58%)	92,343	84,185 (91.17%)	-19.76%	-20.12%	0.36%
Urology	41,740	29,406 (70.45%)	34,666	23,106 (66.65%)	-16.95%	-21.42%	4.48%
Obstetrics & Gynaecology	64,938	52,482 (80.82%)	31,622	20,791 (65.75%)	-51.30%	-60.38%	9.08%
Neurology	41,602	29,422 (70.72%)	31,195	22,990 (73.70%)	-25.02%	-21.86%	-3.15%
TOTAL	960,762	727,574 (75.73%)	738,298	528,663 (71.61%)	-23.15%	-27.34%	4.18%

Provided and LHAs' demanded OCS weekly hours by medical specialization

Overall, of the 38 medical specialties present in both 2017 and 2023, 23 (60.53%) had a reduction in the provided total hours, while 13 (34.21%) saw an increase, and only 2 remained stable.

The greatest reductions in provided hours were recorded for Dentistry, Dermatology, Ophthalmology, Child Neuropsychiatry and Psychiatry. The main increases were instead observed mainly for Rheumatology, Geriatrics and Pulmonology.

In the same years, LHA's demand reduced mainly for Dentistry, Obstetrics & Gynaecology, Psychiatry and Child Neuropsychiatry, General Surgery, Endocrinology, Hygiene and Preventive Medicine. For other specialties instead, a regional growth in LHAs' hours demand was observed, although unsatisfied by the lack of applications. (Details in S2).

Differences among LHAs demand of hours per population for each medical specialization in 2023

In 2023 only 6 specialties (Dentistry, Obstetrics & Gynaecology, Ophthalmology, Otorhinolaryngology, Dermatology and Cardiology) have been recorded in all 12 regional LHAs, while other 10 in more than the half of them and the remaining 22 in less.

Disparities in population-based demand for OCS hours across all LHAs were found mainly for Cardiology, with a range from a minimum of 1.07 to a maximum of 8.33 weekly hours per 10,000 inhabitants, but important variations were found in the majority of the specializations, as for example in Ophthalmology, Dentistry and Obstetrics & Gynaecology (See S3).

Comparison with regionally provided first visits in the years 2018-2023

The total number of first visits globally provided in the Region (including LHAs and Hospital Trusts both) for the 20 monitored specialties during the first semester of 2023 was 23.15% lower than that provided in the same period of 2018 (738,298 vs 960,762). This reduction was however observed only for the visits provided by LHAs, that supply over two thirds of all regional visits, and had a global loss of 27.34%. Conversely, those provided by Hospital Trusts increased of 4.18%.

The reduction 2018-2023 in LHAs' public provision was considerably high in Obstetrics & Gynaecology (-60.38%), Ophthalmology (-42.83%), Dentistry (-36.18%) and Dermatology (-29.69%) (Table 4).

First visits provided within prescribed priority times

The percentages of first visits guaranteed by regional LHAs in accordance with prescribed priorities in 2023 showed only minimal increases compared to 2018. Specifically, there were increases of 1.65% for class U, 3.42% for class B and 1.88% for class D. Additionally, the percentage of first visits provided in more than 30 days grew by 5.27%. No regional data are however available to monitor outliers, average or median lengths and the Region do not monitor class P visits (within 120 days). The details for specialities and the comparison with first visits guaranteed by Hospital Trusts are given in S4.

Booked first visits for population and lengths of waiting lists in 2023

The analysis on the data from the experimental survey performed by AGENAS and The Bridge Foundation in 2023, showed a total number of first visits booked every 1,000 inhabitants in all regional LHAs the 38.48% lower than the average number of visits booked by all national LHAs surveyed (2.06 vs 3.40 visits /1,000 inhabitants). The comparison with the data of the Emilia-Romagna Region, which recorded the highest number of booked visits in all monitored specialities, shows an important difference, with more than two thirds of booked visits less in Piedmont (2.09 vs 7.01 visits/1,000 inhabitants). Table 5 shows the data for all monitored specialities.

The percentage of first visits booked within the prescribed time was for class B higher in Piedmont than in Emilia-Romagna and Italy, with a median waiting length of 7 days and a shorter average of the median values observed in every LHAs. Results were although different for other priorities classes, with Piedmont having the lowest percentage of visits booked within the prescribed timeframe of 30 and 120 days and also the highest median and average of medians waiting lists lengths in comparison with Emilia-Romagna and Italy both in nearly all the surveyed specialities (Table 5).

Discussion

The survey highlighted a progressive decline in the provision of OCS Medical care by Piedmont Regional Health Service during the years 2017-2023. This reduction, when added to the previous cut of 8% due to the spending review implemented from 2013 to 2016 under the Regional Recovery Plan (21), corresponds to a total decrease of 23.93% in

Table 5 – Number of booked first visits every 1.000 inhabitants in all LHAs of Piedmont, Emilia-Romagna and Italy in the week from 22-26 May 2023 (data elaborated from the AGENAS Survey)

	Book	ed Visits E Inhabitar	-	C	lass B (1	0 Days)	C	lass D (3	0 Days)	Class P (120 Days)		
	N	Pied- mont% Diff	LHAs Range	%	Me- dian (days)	Average of median (days)	%	Me- dian (days)	Average of median (days)	%	Me- dian (days)	Average of median (days)
Cardiology												
Piedmont	0.32		0.10-0.40	96.2	8.0	6.7	35.2	73.5	91.8	68.5	43.0	66.8
Emilia-Romagna	1.20	-73.61%	0.80-1.50	97.6	6.5	5.6	96.2	10.0	9.9	92.0	13.0	31.3
Italy	0.60	-47.22%	0.10-1.50	83.5	7.3	8.4	79.3	17.3	44.3	86.9	14.0	49.0
Ophthalmology												
Piedmont	0.38		0.10-0.90	99.2	6.3	6.2	33.9	158.5	152.0	51.8	174.0	148.9
Emilia-Romagna	1.51	-75.21%	1.10-2.50	68.6	7.0	9.7	79.2	17.0	17.4	17.37	26.0	25.1
Italy	0.70	-46.43%	0.10-2.50	86.7	6.0	7.9	72.1	21.3	59.2	76	24.0	78.9
Orthopedics												
Piedmont	0.24		0.00-0.50	98.5	8.0	8.0	43.7	36.0	87.3	79.1	26.5	55.4
Emilia-Romagna	1.16	-79.21%	1.00-1.30	81.6	7.0	6.9	90.4	12.5	11.1	88.3	21.5	32.4
Italy	0.50	-51.67%	0.00-1.30	74	7.0	8.4	77.8	22.3	43.6	89.9	29.3	49.9
Otorhinolaryngoya	atry											
Piedmont	0.43		0.10-0.70	100.0	7.5	7.1	43.6	37.5	46.8	81.4	57.5	64.2
Emilia-Romagna	1.14	-62.64%	0.40-1.60	81.5	7.5	9.0	94.7	11.5	13.5	93.2	26.5	39.3
Italy	0.60	-29.17%	0.10-1.60	74.7	7.0	7.7	74.7	22.0	32.9	89.3	30.0	52.1
Urology												
Piedmont	0.20		0.00-0.30	100.0	1.5	2.6	66.8	5.5	26.5	95.9	5.0	28.5
Emilia-Romagna	0.48	-57.89%	0.20-0.80	88.6	7.5	7.3	87.0	10.5	16.0	93.1	22.5	25.3
Italy	0.30	-33.33%	0.00-0.80	81.6	5.0	9.0	78.5	14.0	30.7	88.6	20.0	37.3
Dermatology												
Piedmont	0.45		0.10-1.10	100.0	7.5	6.8	46.5	45.0	87.0	66.5	52.0	75.8
Emilia-Romagna	1.26	-64.36%	0.80-1.90	77.4	7.8	9.8	90.2	18.0	17.5	92.5	29.8	29.9
Italy	0.60	-25.00%	0.10-1.90	68.6	7.8	10.2	72.6	22.0	54.9	83.7	33.8	61.4
Gastroenterology												
Piedmont	0.08		0.00-0.10	100.0	7.5	6.7	27.2	79.0	91.7	52.6	126.0	105.0
Emilia-Romagna	0.26	-68.25%	0.10-0.40	79.9	7.0	15.7	83.8	10.5	15.1	99.2	10.0	30.1
Italy	0.10	-16.67%	0.00-0.40	80.8	7.0	18.4	71.9	27.8	55.1	74.3	47.3	71.1
TOTAL												
Piedmont	2.09			99.09	7.0	6.3	42.18	55.0	83.2	71.28	52.0	76.6
Emilia-Romagna	7.01	-70.16%		82.47	7.0	9.0	88.79	13.0	14.4	92.25	22.3	30.6
Italy	3.40	-38.48%		83.16	7.0	9.8	66.17	21.0	45.7	82.67	28.5	57.0

the number of provided hours of OCS Medical care during the last ten years.

These results, when compared with the national data from SISAC, place Piedmont among the Italian regions in 2023 with the least provision of OCS medical care, and, conversely, the Region with the highest supply of OCS Psychology care.

This trend aligns with the observed decrease in the number of outpatient specialist visits provided by regional LHAs during the same period, which dropped of more than 25% in the years 2018-2023, without relevant changes in waiting lists lengths. Notably the reduction affected only LHAs and not Hospital Trusts, thus suggesting a problem mainly at Community level in the supply of outpatient specialist care in the Region.

Besides, the analysis of the data from the experimental survey performed by AGENAS in 2023 highlighted that Piedmontese LHAs have actually booked, with a higher length of waiting lists, less than

one third of the outpatient specialist visits per 1,000 inhabitants booked in a neighbouring region and only two-thirds of the national average.

These differences, assuming a substantial epidemiological homogeneity in the Italian population, suggest a reduced capacity of regional LHAs in fulfilling directly outpatient specialist care needs of the population, as also shown by other evidences.

Between 2017 and 2023, out-of-pocket private healthcare expenditure in Piedmont actually increased of 41.22%, rising from 2.45 to 3.46 billion of Euro (22). Concurrently, the percentage of population with health services renounce rose by 31.34%, going from 6.7% to 8.8% of the Piedmontese population, while in Italy decreased of 6.17%. (23).

In response to these challenges, the Piedmont Region has implemented a series of initiatives as part of the National Plan for the Recovery of Waiting Lists, which has been revised and strengthened in light of the COVID-19 pandemic (24).

Along with the allocation of extraordinary funds for the provision of additional working hours by public staff and contracted specialists even during evening hours and week-ends (25), a major intervention was made with the enlargement of outsourcing from accredited private clinics (26,27).

These measures, however, might probably help to address the backlog of healthcare services that accumulated during the pandemic and temporary counterbalance the gap with other regions' provision of outpatient specialist care, but won't likely be able to solve what appears to be a structural problem of the Piedmontese Health Service.

The COVID-19 pandemic, far from being the cause, has actually set the light and enhanced a critical situation that has slowly, but progressively, developed during the years long before it and whose origins for Outpatient Contracted Specialists might be conducted to three main factors.

Firstly, Piedmont is currently one of the Italian regions with the lowest number of medical specialists, recording 30.6 specialists every 10,000 inhabitants, 3.5 less than the national average as of 2023 (28). As seen in this study with the exponential increase in the number of vacant hours (+243.46% from 2017), this workforce shortage considerably affected the provision of OCS care in the region.

The increasing lack of OCS job applications was however caused not only by the shortage of specialists, but was also influenced by the unattractiveness of OCS roles for economic reasons, limited career opportunities and contractual restrictions related to incompatibility with other professional activities, even for part-time OCS.

Secondly, also as a consequence of the growing number of vacant OCS medical positions, facing an increasing demand of psychology care (29) and the concurrent lack of financial resources for mental health (30), many regional LHAs have chosen, even before the COVID-19 pandemic (31), to reallocate part of the available OCS economic resource on psychologists, whose workforce is not having shortage problems in Italy, making thus Piedmont in 2023 the Italian region with the highest number of OCS for this kind of care in Italy. This choice, being the regional economic fund for all OCS professionals unique and basically unchanged in the years, has slowly, but permanently, lowered the share previously designated to OCS medical care.

As a third cause, besides the insufficient number of applications, an objective reduction in the demand of OCS medical hours by Regional LHAs was recorded during the period under examination. Despite the already limited availability of public OCS medical care and the problem of waiting lists lengths, a global decrease of 5.05% in overall LHAs' demand of hours was actually observed during the years 2017-2023, a reduction that, when looking at other regions' data, can't be supported by epidemiological reasons. Regional LHA's demand of hours decreased in particular for Dentistry, indicating a progressive withdrawal by many regional Local Health Authorities from that form healthcare provision defined as "Social Dentistry", which has historically represented in Piedmont one of the few chances of public dental care for the most disadvantaged part of the population. A similar situation emerged however also for other essential specializations, such as Obstetrics & Gynaecology, Otorhinolaryngology, Psychiatry and Child Neuropsychiatry, posing thus a problem of access to care in core public health population targets.

Furthermore, important differences emerged among the various regional LHAs regarding the number of medical specialty available and their amount of provided hours per inhabitants, showing thus a regional lack of homogeneity in OCS service provision at community level.

The consequences of this progressive reduction of OCS medical care, beyond being a public health problem on the light of the *Essential Levels of Care*, are already partly evident, while others will likely escalate in the short to medium term, influencing healthcare development plans for chronic conditions

(32) and the new community healthcare model established by Ministerial Decree nr. 77.

Among the already faced consequences, the well-known regional and national problem, repeatedly reported by the media (33,34), of the increasing lengthening of waiting lists, emerges first and foremost, a phenomenon that appears difficult to contain with the established extraordinary interventions and current staff resources.

Additionally, the repercussions of insufficient OCS medical resources at the community level within the Region will adversely affect the home care development initiatives outlined in the National Recovery and Resilience Plan (8), as well as the provision of specialized care in community settings, such as the Community Homes and Hospitals established by Ministerial Decree n. 77, the activation and full functioning of which appears to be already compromised by the lack of specialist workforce.

Conclusions

The current investigation reveals a reduction in public OCS medical care availability in the Piedmont Region from 2017 to 2023, despite a Regional Health Service provision of outpatient specialist care already below the national average.

In the same years a progressive increase of waiting lists lengths, out-of pocket private expenditure and renounce to health services was observed in the Region, a phenomenon that the COVID-19 pandemic has enhanced, but not induced. The decline in OCS medical care provision had actually begun before, mainly due, especially in the last years, to a lack of medical applications, to a reallocation of part of the economic resource towards psychologic care, but also to an objective reduction in the demand for OCS job applications from regional LHAs, even in some basic medical specializations.

All these elements promoted a progressive withdrawal of the Regional Health Service from the direct provision of outpatient specialist care and the wider use of outsourcing from the private sector, mainly at the community level, as also confirmed by the reduction of overall provision of outpatient specialist services only in regional LHAs and not in Hospital Trusts.

On the contrary, most regional LHAs increased their "in-house" OCS psychologic care provision, making thus Piedmont a unique case under this point of view in Italy. In order to contain inequalities, to guarantee access to outpatient specialist medical care and the development of the new model of community care, along the extraordinary measures set up after the COVID-19 pandemic, structural interventions seem to be needed at national and regional level both. These interventions should include the implementation of information systems for the identification of outpatient specialist care needs, the development of staffing standards at community level and the promotion of OCS medical workforce recruitment through incentive mechanisms and contractual changes.

Riassunto

L'assistenza specialistica ambulatoriale interna negli anni prima e dopo la pandemia COVID-19. Il caso della Regione Piemonte

Background. L'assistenza Specialistica Ambulatoriale Interna rappresenta in Italia, insieme alla medicina di famiglia e alla pediatria, uno dei tre pilastri fondamentali delle cure primarie e di comunità. Analogamente ai medici di medicina generale del Servizio Sanitario Nazionale britannico ed italiano, questi "specialisti scalzi", principalmente medici ma anche psicologi ed altre professionalità, svolgono un ruolo chiave nella gestione dei pazienti cronici in ambito territoriale.

I sistemi informativi nazionali attualmente in uso non consentono tuttavia di definire con precisione l'"input" della forza lavoro dedicata all'assistenza specialistica ambulatoriale, sia in ambito territoriale sia ospedaliero. Per superare parzialmente questo problema, il Comitato Regionale Paritetico per la Specialistica Ambulatoriale Interna della Regione Piemonte ha avviato dal 2017 un'indagine per monitorare le ore di assistenza sanitaria erogate per ciascuna specialità. Il presente studio descrive i risultati dell'analisi dei dati dal 2017 al 2023 anche in rapporto alle prime visite erogate prima e dopo la pandemia di COVID-19.

Disegno dello studio e Metodi. I dati sono stati raccolti tramite un foglio elettronico standardizzato inviato annualmente da ogni Azienda Sanitaria al Comitato. I totali regionali per l'anno 2023 sono stati poi confrontati con i corrispondenti totali nazionali. E' stata quindi svolta una analisi sui dati disponibili relativi al numero di prime visite erogate dalle Aziende Sanitarie Locali ed Ospedaliere nonché sulle prime visite prenotate per abitanti.

Risultati. Le ore settimanali di assistenza medica specialistica ambulatoriale interna erogate dal 2017 al 2023 sono diminuite del 15,93% (da 20.535 a 17.264), principalmente in Odontoiatria, Dermatologia e Oculistica. Al contrario, le ore totali degli psicologi sono aumentate da 8.136 a 9.532 (17,16%).

Nel 2023 il numero di ore di assistenza medica specialistica ambulatoriale interna per abitante è stato inferiore del 34,66% rispetto alla media nazionale, mentre le ore degli psicologi sono state superiori del 199,12%.

Il numero di ore settimanali vacanti è aumentato da 856 a 2.940 (243,46%) per la medicina specialistica negli anni 2017-2023, raggiungendo nel 2023 il 14,74% delle ore richieste dalle Aziende Sanitarie a livello regionale.

Nello stesso periodo, la domanda da parte delle Aziende Sanitarie di assistenza medica specialistica ambulatoriale interna si è ridotta del 5,05%, principalmente per odontoiatria, ostetricia & ginecologia, psichiatria e neuropsichiatria infantile.

Il numero di prime visite erogate dalle Aziende Sanitarie Locali durante il primo semestre del 2023 è stato inferiore del 27,34% rispetto al 2018. Al contrario, è stato osservato un aumento del 4,18% nel numero di prime visite erogate dalle Aziende Ospedaliere negli stessi anni.

Nel 2023 il numero di prime visite ogni 1.000 abitanti prenotate presso le Aziende Sanitarie Locali è stato inferiore del 34,48% rispetto alla media nazionale e di oltre due terzi rispetto ad una regione limitrofa.

Conclusioni. Lo studio condotto evidenzia una progressiva diminuzione dell'offerta di assistenza medica specialistica ambulatoriale interna nella Regione Piemonte nel periodo 2017-2023, a fronte del progressivo aumento delle liste di attesa, della spesa privata outof-pocket e della rinuncia ai servizi sanitari da parte dei cittadini. Il fenomeno è stato amplificato, ma non indotto dalla pandemia COVID-19 ed ha avuto fra le cause principali l'incremento delle ore vacanti, lo spostamento di parte delle risorse finanziarie dedicate verso l'assistenza psicologica, ma anche l'oggettiva riduzione della domanda da parte delle Aziende Sanitarie.

La riduzione osservata appare destinata ad aumentare le disuguaglianze e ad ostacolare l'accesso all'assistenza medica specialistica pubblica, soprattutto nei contesti territoriali, compromettendo inoltre l'implementazione delle Reti di Prossimità previste dal Decreto Ministeriale n. 77 del 2022.

References

- Legge 833/1978. Istituzione del Servizio Sanitario Nazionale. (GU n.360 del 28/12/1978).
- Decreto Legislativo 502/1992. Riordino della disciplina in materia sanitaria, a norma dell'articolo 1 della legge 23 ottobre 1992, n. 421 e s.m. (GU n.305 del 30/12/1992 n.137).
- Decreto del Presidente Consiglio dei Ministri 29/11/2001.
 Definizione dei Livelli Essenziali di Assistenza. (GU n.33 del 08/02/2002, S.O. n.26).
- Decreto del Presidente Consiglio dei Ministri 12/01/2017.
 Definizione e aggiornamento dei livelli essenziali di assistenza. (GU n.65 del 18/03/2017).
- Accordo Collettivo Nazionale per la disciplina dei rapporti con i medici specialisti ambulatoriali interni, veterinari ed altre professionalità sanitarie (biologi, chimici, psicologi) ambulatoriali ai sensi dell'art. 8 del D.Lgs. n. 502 del 1992 e s.m.i.- Triennio 2019-2021 esecutivo con Intesa Stato-Regioni del 4 aprile 2024, rep. n. 52/CSR. (GU Serie Generale n.147 del 25/06/2024, S.O. n.28).
- 6. Decreto Legge 13/09/2012, n. 158 (GU n.214 del 13/09/2012), convertito in Legge 8 novembre 2012, n. 189. Disposizioni urgenti per promuovere lo sviluppo del Paese mediante un più alto livello di tutela della salute. (GU n. 263 del 10/11/2012, S.O. n.201).
- Decreto 23 maggio 2022, n. 77. Regolamento recante la definizione di modelli e standard per lo sviluppo dell'as-

- sistenza territoriale nel Servizio sanitario. (GU n.144 del 22/06/2022).
- 8. Governo Italiano. Piano Nazionale di Ripresa e Resilienza. Available from: https://www.pnrr.salute.gov.it/portale/pnrrsalute/homePNRRSalute.jsp [Last accessed: 2025 Jan 25].
- Agenzia Nazionale per i Servizi Sanitari Regionali (AGE-NAS). Linee di indirizzo per l'attuazione del modello organizzativo delle Case di Comunità Hub. Versione 05/04/2024. Available from: www.agenas.gov.it/images/agenas/PNRR/Linee_di_indirizzo_CdC.pdf [Last accessed: 2025 Jan 251.
- Cicchetti A. Il monitoraggio del fenomeno per il governo delle liste di attesa e l'ottimizzazione dei servizi. Slide Convegno AGENAS: Monitoraggio ex ante dei tempi di attesa delle prestazioni ambulatoriali. Anno 2023. 10 novembre 2023, Sala Auditorium, Ministero della Salute, Lungotevere Ripa, 1 – Roma. At: https://www.agenas.gov. it/images/2023/10_nov/Cicchetti.pdf [Last accessed: 2025 Feb 25].
- 11. Spandonaro F, Verneau F. Assistenza specialistica ambulatoriale. In: Spandonaro F, Daniela d'Angela D., Polistena B. 20° Rapporto Sanità 2024. Manutenzione o Trasformazione: l'intervento pubblico in Sanità al bivio. C.R.E.A. Sanità: Locorotondo Editore, 2024: 373. Available from: https://www.creasanita.it/wp-content/uploads/2025/01/20%C2%B0Rapporto-Sanita.pdf [Last accessed: 2025 Feb 25].
- Ministero dell'Economia e delle Finanze. Ragioneria Generale dello Stato. Conto Annuale. Available from: https://www.rgs.mef.gov.it/VERSIONE-I/e_government/amministrazioni_pubbliche/personale_delle_pa/conto_annuale [Last accessed: 2025 Feb 25].
- 13. Struttura Interregionale Sanitari Convenzionati (SISAC). Rilevazioni. Available from: https://www.sisac.info/ActionPagina_350.do [Last accessed: 2025 Feb 25].
- 14. Accordo Collettivo Nazionale per la disciplina dei rapporti con i medici specialisti ambulatoriali interni, veterinari ed altre professionalità sanitarie (biologi, chimici, psicologi) ambulatoriali ai sensi dell'art. 8 del D.Lgs. n. 502 del 1992 e s.m.i.- Triennio 2019-2021 esecutivo con Intesa Stato-Regioni del 4 aprile 2024, rep. n. 52/CSR. (GU Serie Generale n.147 del 25/06/2024, S.O. n.28). Art. 17.
- 15. D.G.R. Regione Piemonte. n. 22-4918 del 22/04/2022. Istituzione del "Comitato paritetico regionale. (BU 18 05/05/2022).
- 16. Piemonte STAtistica e BDDE online. Available from: https://servizi.regione.piemonte.it/catalogo/pista-piemontestatistica-bdde [Last accessed: 2025 Feb 25].
- Struttura Interregionale Sanitari Convenzionati (SISAC). Statistiche. Assistenza sanitaria convenzionata: MEDICINA CONVENZIONATA - Numero scelte al 1° gennaio 2024 e numero ore remunerate anno 2023. Available from: https:// www.sisac.info/ActionPagina_296.do [Last accessed: 2025 Feb 25].
- Regione Piemonte. Tempi di attesa visite specialistiche. I Semestre 2018. Available from: https://www.regione.pi-

- emonte.it/web/sites/default/files/media/documenti/2018-10/tempi_attesa_2018_visite_allegato.pdf [Last accessed: 2025 Feb 25].
- Regione Piemonte. Tempi di attesa visite specialistiche. I Semestre 2023. Available from: .https://www.regione.piemonte.it/web/sites/default/files/media/documenti/2023-10/tempi_di_attesa_prestazioni_specialistiche_i_sem_2023_def_3.pdf [Last accessed: 2025 Feb 25]
- 20. AGENAS, Fondazione The Bridge. Report sulla sperimentazione del monitoraggio ex ante delle prestazioni prenotate in attività istituzionale. Prot n. 2024/0003252, 15/03/2024. Available from: https://www.fondazionethebridge.it/wpcontent/uploads/2024/03/Report-Sperimentazione_PROT. pdf [Last accessed: 2025 Feb 25].
- 21. D.G.R. Regione Piemonte n. 25-6992 del 30 dicembre 2013, Approvazione Programmi Operativi 2013-2015 predisposti ai sensi dell'art. 15, comma 20, del D.L. n. 95/2012 convertito, con modificazioni, in legge n. 135/2012. (BU 06/02/2014, pag. 148).
- Ministero dell'Economia e delle Finanze. Dipartimento della Ragioneria Generale dello Stato. Il Monitoraggio della Spesa Sanitaria. Rapporto n. 11. Dicembre 2024. Available from: https://www.rgs.mef.gov.it/_Documenti/ VERSIONE-I/Attivit--i/Spesa-soci/Attivit-monitoraggio-RGS/2024/IMDSS-RS2024.pdf [Last accessed: 2025 Feb 25].
- 23. Istituto nazionale di Statistica (ISTAT). Benessere equo e sostenibile in Italia. Available from: https://www.istat.it/produzione-editoriale/rapporto-bes-2023-il-benessere-equo-e-sostenibile-in-italia/ [Last accessed: 2025 Feb 25].
- 24. Ministero della Salute. Piano nazionale per il governo delle liste di attesa per il triennio 2019-2021. Available from: https://www.pnrr.salute.gov.it/portale/listeAttesa/dettaglio-PubblicazioniListeAttesa.jsp?lingua=italiano&id=2824 [Last accessed: 2025 Feb 25].
- 25. Dellepiane G. Sanità, la sfida delle liste d'attesa in Piemonte. RAI. TGR Piemonte. Available from: https://www.rainews.it/tgr/piemonte/video/2025/02/liste-attesa-sanita-piemonte-focus--b183b27c-ad46-41f6-a177-2bf1da634e7d.html [Last accessed: 2025 Feb 25].
- 26. Regione Piemonte. D.D. 13 novembre 2024, n. 761. DGR n. 20-4473 del 29 dicembre 2021 Determinazione del fabbisogno regionale di specialità ambulatoriali ai sensi dell'art. 8 quater D.Lgs. 502/1992 e smi per l'intero territorio regionale e del fabbisogno specifico per ciascuna Area omogenea di programmazione. Approvazione avviso

- pubblico e modulistica per la presentazione di nuove istanze di accreditamento. BU46S3 14/11/2024.
- 27. Regione Piemonte. Deliberazione della Giunta Regionale 22 gennaio 2024, n. 17-8103 Regole di finanziamento per l'acquisto di prestazioni sanitarie da erogatori privati per gli anni 2024-2025-2026 ed assegnazione dei tetti di spesa. Recepimento dell'Accordo sottoscritto tra la Direzione regionale Sanità e le Associazioni degli Erogatori sanitari privati. Approvazione dello schema di contratto per prestazioni di ricovero, specialistica ambulatoriale, attività domiciliare. BU4 25/01/2024.
- 28. Istituto nazionale di Statistica (ISTAT). Il benessere equo e sostenibile dei territori. Piemonte 2024. Available from: https://www.istat.it/wp-content/uploads/2024/11/Piemonte BesT 2024.pdf [Last accessed: 2025 Feb 25].
- 29. Barone N. Più di una persona su 6 soffre di problemi mentali, dall'Ue un piano da 1,2 miliardi. Ilsole24ore. 8 June 2023. Available from: https://www.ilsole24ore.com/art/piu-una-persona-6-soffre-problemi-mentali-dall-ue-piano-12-miliardi-AEIV9UbD [Last accessed: 2025 Feb 25].
- Gobbi B. Per la salute mentale è allarme risorse: servono almeno 2 miliardi in più e il personale va raddoppiato. 4 October 2023. Available from: https://www.ilsole24ore.com/ art/per-salute-mentale-e-allarme-risorse-servono-almeno-2 -miliardi-piu-e-personale-va-raddoppiato-AFodUN6 [Last accessed: 2025 Feb 25].
- 31. Conferenza Stato-Regioni. Intesa, ai sensi dell'articolo 29 ter, comma 2, del decreto legge 14 agosto 2020, n. 104, convertito, con modificazioni, dalla legge 13 ottobre 2020, n. 126, tra il Governo, le Regioni, le Province autonome di Trento e Bolzano e gli Enti locali sulle "Linee di indirizzo per la funzione della Psicologia del SSN". Pag. 56. Available from: https://www.quotidianosanita.it/allegati/allegato1666036625.pdf [Last accessed: 2025 Feb 25].
- Ministero della Salute. Piano Nazionale della cronicità. Proposta di Aggiornamento 2024. Available from: https:// www.quotidianosanita.it/allegati/allegato1721737583.pdf [Last accessed: 2025 Jan 25].
- Mondo A. Tempi troppo lunghi o costi troppo alti: boom di rinunce alle visite specialistiche. La Stampa. 23 May 2023. Available from: https://www.lastampa.it/torino/2023/05/23/ news/sanita_liste_dattesa_costi_rinunce_visite_specialistiche_piemonte-12820423/ [Last accessed: 2025 Jan 25].
- 34. Monodo A. Ecografia a novembre 2025. In attesa del nuovo software le liste d'attesa sono un rebus. La Stampa. 20 Ottobre 2024. Available from: https://www.lastampa.it/torino/2024/10/20/news/liste_attesa_sanita_piemonte-14734112/#google_vignette [Last accessed: 2025 Jan 25].

SUPPLEMENTARY MATERIALS

(S1) SUPPLEMENTARY TABLE 1 – Vacant Outpatient Contracted Specialist (OCS) weekly hours in 2017 and 2023 in Piedmont Region by medical specialization

	2017	2023	DIFFERENCE SINCE 2017	%
OPHTHALMOLOGY	207	605.5	398.5	192.51%
DERMATOLOGY	28	298.5	270.5	966.07%
NEUROLOGY	60	172	112.5	189.08%
CARDIOLOGY	83	161	78.5	95.15%
PSYCHIATRY	0	141	141	/
OBSTETRICS & GYNAEC.	104	128	24.5	23.67%
CHILD NEUROPSYCHIATRY	25	122	96.5	386.00%
GERIATRICS	29	120	91	313.79%
DENTISTRY	26	111	85	326.92%
FORENSIC MEDICINE	0	76	76	/
INFECTIOUS DISEASES	0	69	69	/
RHEUMATOLOGY	34	61	27	79.41%
PEDIATRICS	0	59	59	/
ALLERGOLOGY	10	58	48	480.00%
SPORTS MEDICINE	16	46	30	187.50%
RADIOLOGY	0	26.5	26.5	/
OTORHINOLARYNGOIATRY	41	27	-14.5	-35.37%
AUDIOLOGY	0	22	22	/
ORTHOPEDICS	24	18	-6	-25.00%
OCCUPATIONAL MEDICINE	0	16	16	/
PULMONOLOGY	2	15	13	650.00%
DIABETOLOGY	14	14.5	0.5	3.57%
GASTROENTEROLOGY	0	13	13	/
ENDOCRINOLOGY	0	10.5	10.5	/
ANGIOLOGY	0	10	10	/
PHISIATRICS	34	8	-26	-76.47%
UROLOGY	0	6	6	/
GENERAL SURGERY	0	5	5	/
NEPHROLOGY	0	4	4	/

(S2) SUPPLEMENTARY TABLE 2 – Provided and LHAs demanded Outpatient Contracted Specialists (OCS) weekly hours by medical specialization, total and every 10,000 inhabitants, in the Piedmont Region in the years 2017 and 2023

	PROVIDED WEEKLY HOURS								LHAs DEMANDED WEEKLY HOURS							
		тот	AL		PE	R 10,00	0 INH	AB.	TOTAL				PER 10,000 INHAB.			
	2017	2023	Diff.	%	2017	2023	Diff.	%	2017	2023	Diff.	%	2017	2023	Diff.	%
ALLERGOLOGY	262	206.0	-56.0	-21.4	0.6	0.5	-0.1	-20.0	272.0	264.0	-8.0	-2.9	0.6	0.6	0.0	0.0
ANGIOLOGY	148.8	57.0	-91.8	-61.7	0.3	0.1	-0.2	-61.8	148.8	67.0	-81.8	-55.0	0.3	0.2	-0.2	-52.9
AUDIOLOGY	214.0	277.0	63.0	29.4	0.5	0.7	0.2	32.7	214.0	299.0	85.0	39.7	0.5	0.7	0.2	42.9
CARDIOLOGY	1107.8	1044.5	-63.3	-5.7	2.5	2.5	-0.1	-2.8	1190.3	1205.5	15.2	1.3	2.7	2.8	0.1	4.4
CHILD NEUROPSYCHIATRY	1672.0	1187.0	-485.0	-29.0	3.8	2.8	-1.0	-27.0	1697.0	1308.5	-388.5	-22.9	3.9	3.1	-0.8	-20.6
CLINICAL PATHOLOGY	136.0	136.0	0.0	0.0	0.3	0.3	0.0	3.2	136.0	136.0	0.0	0.0	0.3	0.3	0.0	3.2
DENTISTRY	3032.8	2283.3	-749.5	-24.7	6.9	5.4	-1.6	-22.5	3058.8	2394.3	-664.5	-21.7	7.0	5.6	-1.4	-19.5
DERMATOLOGY	936.5	722.8	-213.7	-22.8	2.1	1.7	-0.4	-20.6	964.5	1021.3	56.8	5.9	2.2	2.4	0.2	9.1
DIABETOLOGY	642.7	642.5	-0.2	0.0	1.5	1.5	0.0	2.7	656.7	657.0	0.4	0.1	1.5	1.6	0.1	3.3
ENDOCRINOLOGY	136.0	109.0	-27.0	-19.9	0.3	0.3	-0.1	-16.1	136.0	119.5	-16.5	-12.1	0.3	0.3	0.0	-9.7
FOOD SCIENCE.	143.0	193.0	50.0	35.0	0.3	0.5	0.1	36.4	143.0	193.0	50.0	35.0	0.3	0.5	0.1	36.4
FORENSIC MEDICINE	217.0	106.0	-111.0	-0.5	0.5	0.3	-0.3	-0.5	217.0	182.0	-35.0	-0.2	0.5	0.4	-0.1	-0.1
GASTROENTEROLOGY	81.0	80.0	-1.0	-1.2	0.2	0.2	0.0	0.0	81.0	93.0	12.0	14.8	0.2	0.2	0.0	15.8
GENERAL SURGERY	221.5	181.5	-40.0	-18.1	0.5	0.4	-0.1	-15.7	221.5	186.5	-35.0	-15.8	0.5	0.4	-0.1	-13.7
GERIATRICS	501.5	660.5	159.0	31.7	1.2	1.6	0.4	34.8	530.5	780.5	250.0	47.1	1.2	1.8	0.6	52.1
HEMATOLOGY	22.0	58.0	36.0	163.6	0.1	0.1	0.1	180.0	22.0	58.0	36.0	163.6	0.1	0.1	0.1	180.0
HYGIENE & PREVENT. MED.	388.5	337.5	-51.0	-13.1	0.9	0.8	-0.1	-11.2	388.5	337.5	-51.0	-13.1	0.9	0.8	-0.1	-11.2
INFECTIOUS DISEASES	278.0	271.0	-7.0	-2.5	0.6	0.6	0.0	0.0	278.0	340.0	62.0	22.3	0.6	0.8	0.2	25.0
NEPHROLOGY	56.0	143.0	87.0	155.4	0.1	0.3	0.2	161.5	56.0	147.0	91.0	162.5	0.1	0.4	0.2	169.2
NEUROLOGY	575.0	630.0	55.0	9.6	1.3	1.5	0.2	13.0	634.5	802.0	167.5	26.4	1.5	1.9	0.4	5.0
OBSTETRICS & GYNAECOL.	1725.7	1576.5	-149.2	-8.6	3.9	3.7	-0.2	-5.8	1829.2	1704.5	-124.7	-6.8	4.2	4.0	-0.2	-4.1
OCCUPATIONAL MEDICINE	75.0	154.0	79.0	105.3	0.2	0.4	0.2	111.8	75.0	170.0	95.0	126.7	0.2	0.4	0.2	135.3
OPHTHALMOLOGY	1826.5	1397.2	-429.3	-23.5	4.2	3.3	-0.9	-21.1	2033.5	2002.7	-30.8	-1.5	4.7	4.7	0.1	1.3
ORTHOPEDICS	318.0	280.0	-38.0	-12.0	0.7	0.7	-0.1	-9.6	342.0	298.0	-44.0	-12.9	0.8	0.7	-0.1	-10.3
OTORHINOLARYNG.	1002.3	916.0	-86.3	-8.6	2.3	2.2	-0.1	-6.1	1043.3	942.5	-100.8	-9.7	2.4	2.2	-0.2	-6.7
PEDIATRICS	370.8	187.8	-183.0	-49.4	0.9	0.4	-0.4	-48.2	370.8	246.8	-124.0	-33.4	0.9	0.6	-0.3	-31.8
PHARMACOOGY. & TOX.	500.0	320.0	-180.0	-36.0	1.1	0.8	-0.4	-36,4	500.0	320.0	-180.0	-36.0	1.1	0.8	-0.4	-36,4
PHISIATRICS	236.0	266.0	30.0	12.7	0.5	0.6	0.1	16.7	270.0	274.0	4.0	1.5	0.6	0.6	0.0	3.2
PLASTIC SURGERY	40.0	40.0	0.0	0.0	0.1	0.1	0.0	0.0	40.0	40.0	0.0	0.0	0.1	0.1	0.0	0.0
PSYCHIATRY	847.0	402.0	-445.0	-52.5	1.9	1.0	-1.0	-51.0	847.0	543.0	-304.0	-35.9	1.9	1.3	-0.7	-34.0
PSYCHOTHERAPY	192.0	38.0	-154.0	-80.2	0.4	0.1	-0.4	-79.6	192.0	38.0	-154.0	-80.2	0.4	0.1	-0.4	-79.6
PULMUNOLOGY	126.0	256.0	130.0	103.2	0.3	0.6	0.3	106.9	128.0	271.0	143.0	111.7	0.3	0.6	0.4	120.7
RADIOLOGY	230.0	261.0	31.0	13.5	0.5	0.6	0.1	15.1	230.0	287.5	57.5	25.0	0.5	0.7	0.2	28.3
RADIOTHERAPY	147.0	35.0	-112.0	-76.2	0.3	0.1	-0.3	-76.5	147.0	35.0	-112.0	-76.2	0.3	0.1	-0.3	-76.5
RHEUMATOLOGY	94.0	348.0	254.0	270.2	0.2	0.8	0.6	290.5	128.0	409.0	281.0	219.5	0.3	1.0	0.7	231.0
SPORTS MEDICINE	250.0	314.0	64.0	25.6	0.6	0.7	0.2	29.8	266.0	360.0	94.0	35.3	0.6	0.9	0.2	39.3
UROLOGY	333.5	338.0	4.5	1.4	0.8	0.8	0.0	5.3	333.5	344.0	10.5	3.2	0.8	0.8	0.1	6.6
VASCULAR SURGERY	50.5	29.0	-21.5	-42.6	0.1	0.1	-0.1	-41.7	50.5	29.0	-21.5	-42.6	0.1	0.1	-0.1	-41.7

(S3) SUPPLEMENTARY TABLE 3 – Range of LHA's demanded weekly hours every 10,000 inhabitants among Piedmont Region's overall Local Health Authorities (LHA) by medical specialization in the year 2023

	Range of LHA's demanded weekly hours per 10,000 inhab. among regional LHAs							
YEAR 2023	MIN	MAX	Difference					
CARDIOLOGY	1.07	8.33	7.26					
OPHTHALMOLOGY	2.26	9.3	7.04					
DENTISTRY	2.65	9.57	6.92					
OBSTETRICS & GYNAECOLOGY	1.1	7.68	6.58					
CHILD NEUROPSYCHIATRY	0.83	6.8	5.97					
PSYCHIATRY	0.48	5.98	5.5					
GERIATRICS	0.39	5.68	5.29					
ALLERGOLOGY	0.2	5.18	4.98					
DERMATOLOGY	0.9	5.85	4.95					
FORENSIC MEDICINE	0.24	4.7	4.46					
OTORHINOLARYNGOYATRY	0.63	3.74	3.11					
NEUROLOGY	1.52	4.06	2.54					
DIABETOLOGY	0.92	3.38	2.46					
HYGIENE & PREVENTIVE MED.	0.68	2.77	2.09					
UROLOGY	0.42	2.5	2.08					
SPORTS MEDICINE	0.38	2.35	1.97					
PULMUNOLOGY	0.44	2.35	1.91					
RHEUMATOLOGY	0.61	2.5	1.89					
GENERAL SURGERY	0.05	1.94	1.89					
PEDIATRICS	0.18	1.86	1.68					
ORTHOPEDICS	0.1	1.71	1.61					
FOOD SCIENCE	0.11	1.59	1.48					
PHARMACOLOGY & TOXICOL.	0.92	2.4	1.48					
OCCUPATIONAL MEDICINE	0.89	2.35	1.46					
PHISIATRICS	0.76	2.14	1.38					
AUDIOLOGY	0.06	1.42	1.36					
RADIOLOGY	0.78	1.9	1.12					
NEPHROLOGY	0.45	1.48	1.03					
ANGIOLOGY	0.09	0.53	0.44					
INFECTIOUS DISEASES	2.14	2.57	0.43					
ENDOCRINOLOGY	0.45	0.82	0.37					
VASCULAR SURGERY	0.51	0.85	0.34					
GASTROENTEROLOGY	0.59	0.75	0.16					

(S4) SUPPLEMENTARY TABLE 4 - Percentages of first visits provided by LHAs and Hospital Trusts in the Piedmont Region within the prescribed class of priorities in the first semester 2023 and differences with first semester 2018 (monitored specialities) (*)

SPECIALITIES	SERVICE	CLA (3 D	SS U ays)		SS B Days)	CLA (30 I		Provided in a	
		Provided in 2023	% Diff 2018-2023						
	LHAs	86.06%	-4.66%	87.22%	-4.11%	90.48%	-4.00%	9.52%	4.00%
Psychiatry	Hospital Trusts	14.28%	-5.76%	33.16%	-3.11%	43.83%	-2.25%	56.18%	18.91%
	LHAs	20.04%	1.93%	36.27%	7.75%	46.07%	3.92%	37.26%	-3.92%
Ophthalmology	Hospital Trusts	26.11%	9.12%	47,77%	15.35%	65.97%	24.45%	34.03%	-7.79%
-F	LHAs	16.98%	8.13%	32.42%	7.64%	41.52%	-3.85%	41.82%	3.85%
Allergology	Hospital Trusts	33.12%	6.52%	52.83%	6.88%	69.10%	8.25%	30.90%	8.42%
THE GOING,	LHAs	26.59%	0.17%	45.95%	5.25%	60.85%	0.31%	22.49%	-0.31%
Cardiology	Hospital Trusts	25.82%	1.06%	50.51%	4.44%	69.07%	8.17%	30.93%	8.50%
Cardiology	LHAs	24.76%	1.86%	46.07%	2.17%	60.91%	-4.40%	22.43%	4.40%
Canami Sungar	Hospital Trusts	30.11%	15.95%	56.04%	17.94%	75.43%	20.30%	24.57%	-20.30%
General Surgery	LHAs	14.16%	-3.12%	38.09%	8.50%	55.13%	-9.92%	44.87%	9.91%
DI C.C.	Hospital Trusts	28.71%	19.19%	48.07%	24.45%	55.37%	23.35%	44.64%	33.80%
Plastic Surgery	LHAs	9.52%	-23.10%	23.62%	-35.99%	32.02%	-52.96%	10.84%	-4.18%
	Hospital Trusts	12,77%	-23.10%	30.72%	-6.39%	45.08%	-32.90%	54.92%	20.61%
Vascular Surgery		10.228/	2.504/	27.110/	0.449/	1 40.000/	4.6097	1 24238/	4.609/
	LHAs Hospital Trusts	18.37% 28.27%	3.59% 6.30%	37.11% 52.95%	8.44% 5.81%	49.02% 72.94%	4.68% 8.90%	34.31% 27.06%	-4,68% 0.19%
Dermatology .				l	l				
	LHAs	21.97%	-1.89%	47.14%	8.91%	64.04%	9.81%	26.87%	-2.24%
Gastroenterology	Hospital Trusts	16.80%	0.28%	35.41%	-5.30%	62.66%	10.41%	37.34%	6.26%
	LHAs	16.52%	-3.04%	40.71%	3.60%	52.25%	0.70%	31.08%	-0.70%
Endocrinology	Hospital Trusts	32.49%	11.78%	49.04%	10.01%	67.94%	12.33%	32.07%	4.34%
	LHAs	20.70%	-2.17%	39.03%	3.20%	55.61%	1.57%	27.72%	-1.57%
Dentistry	Hospital Trusts	15.28%	-5.48%	36.41%	-5.88%	59.49%	-1.90%	40.51%	18.57%
	LHAs	20.77%	1.63%	42.29%	5.26%	61.39%	-0.05%	21.95%	0.05%
Orthopedics	Hospital Trusts	33.13%	9.91%	51.78%	6.72%	63.96%	3.94%	36.04%	12.73%
Ormopeutes	LHAs	23.22%	2.44%	45.06%	9.94%	60.02%	-2.72%	23.31%	2.72%
	Hospital Trusts	47.77%	20.24%	63.35%	10.62%	76.82%	10.17%	23.18%	-1.08%
Otorhinolaryngoyatry		22.548/	0.100/	50.738/	7.98%		0.0487	1 24258/ 1	6.63%
	LHAs Hospital Trusts	27.54% 34.69%	-0.10% 9.55%	52.73% 55.62%	7.98%	66.66% 70.01%	0.94%	24.25%	4.95%
Pulmunology	Trospital Trusts	34.0576	3.3376	33.0276	7.0176	70.0176	11.7176	25.5576	4.5376
	LHAs	25.13%	2.08%	48.61%	8.23%	58.30%	-1.92%	25.03%	1.92%
Phisiatrics	Hospital Trusts	17.89%	-9.64%	35.45%	-13.43%	57.56%	-1.69%	42.44%	18.35%
	LHAs	27.53%	6.24%	48.88%	6.88%	59.25%	-5.21%	24.09%	5.21%
Urology	Hospital Trusts	18.56%	-5.52%	42.02%	0.67%	57.01%	-4.31%	42.99%	20.98%
	LHAs	24.08%	-10.51%	41.34%	-6.23%	61.32%	-5.54%	22.02%	5.54%
Obstetrics & Gynaecology	Hospital Trusts	23.33%	2.64%	38.19%	-5.40%	67.80%	6.01%	32.20%	10.65%
	LHAs	20,69%	-2.36%	43.59%	1.86%	61.79%	0.37%	21.55%	-0.37%
N	Hospital Trusts	26.37%	1.67%	49.50%	5.27%	60.74%	3.15%	39.26%	13.07%
Neurology	LHAs	24.70%	1.65%	44.23%	3.42%	57.59%	1.88%	26.19%	5 2704
	Hospital Trusts	25.86%	-2.48%	46.05%	3.42%	63.38%	-0.85%	36.62%	5.27%
TOTAL	2103pilai 11u3t3	20.0074	-2.4070	40.0074	U.A170	00.3079	-0.0070	00.0279	4.4070

^(*) Analysis from original data available at

[•] Regione Piemonte. Tempi di attesa visite specialistiche. I Semestre 2018. At: https://www.regione.piemonte.it/web/sites/default/files/media/documenti/2018-10/tempi_attesa_2018_visite_allegato.pdf [Last accessed: 2025 Feb 25].

[•] Regione Piemonte. Tempi di attesa visite specialistiche. I Semestre 2023. At:https://www.regione.piemonte.it/web/sites/default/files/media/documenti/2023-10/tempi_di_attesa_prestazioni_specialistiche_i_sem_2023_def_3.pdf [Last accessed: 2025 Feb 25]