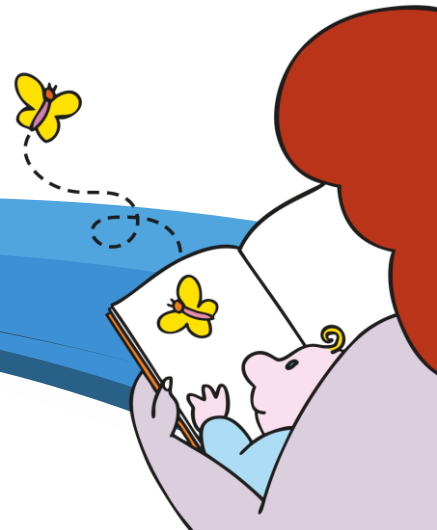


Evaluation Of Implementation And Impact Of Nati Per Leggere In Italy

Giorgio Tamburlini MD PhD



The NpL alliance

- **Nati per leggere, started** in 2000, is promoted by the professional organizations of librarians and paediatricians:
- **Associazione Culturale Pediatri (ACP),**
- **Associazione Italiana Biblioteche (AIB) and**
- **Centro per la Salute del Bambino (CSB)**

NpL key concepts

Early intervention

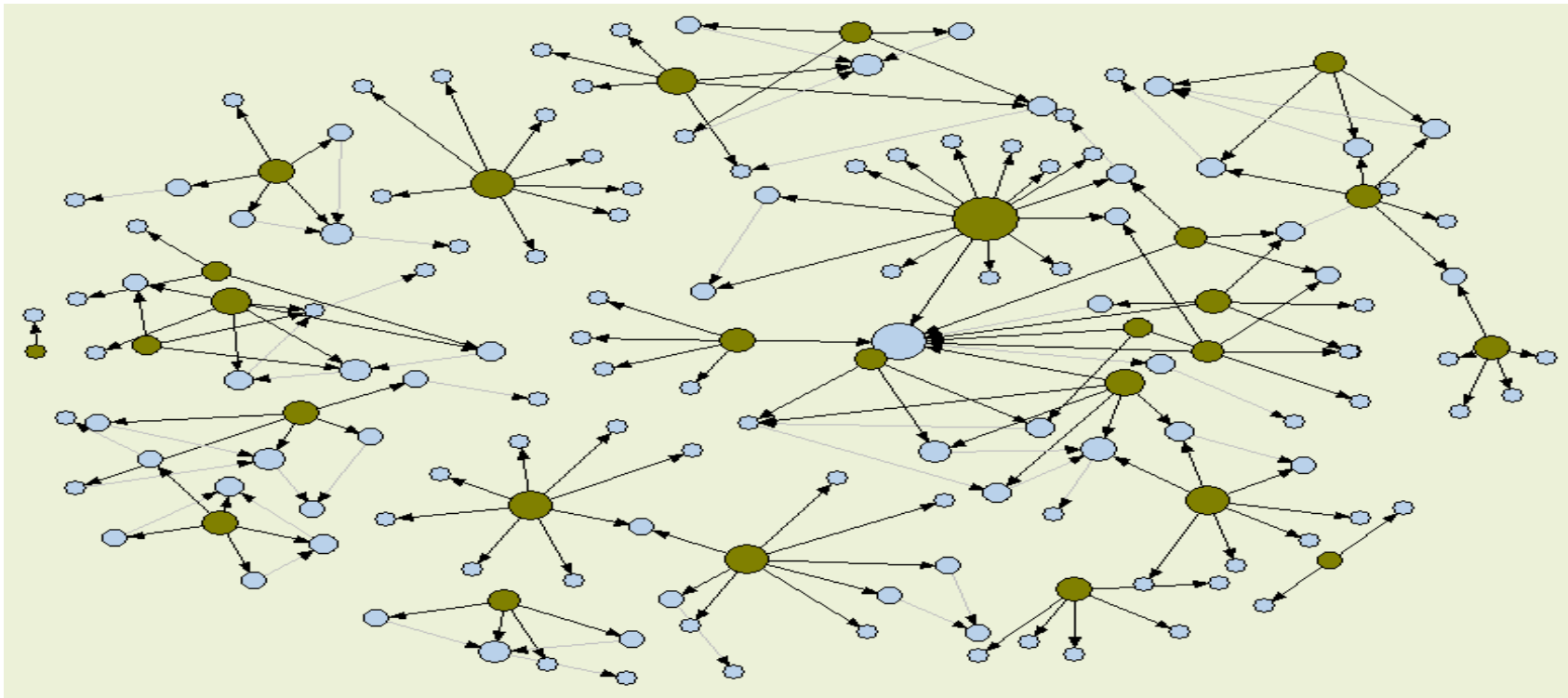
The central role of the family

Universal coverage



NpL strategy

- Local (regional and municipal) operational networks to ensure a systemic multi-sector dissemination
- Health services can ensure universal coverage of the message

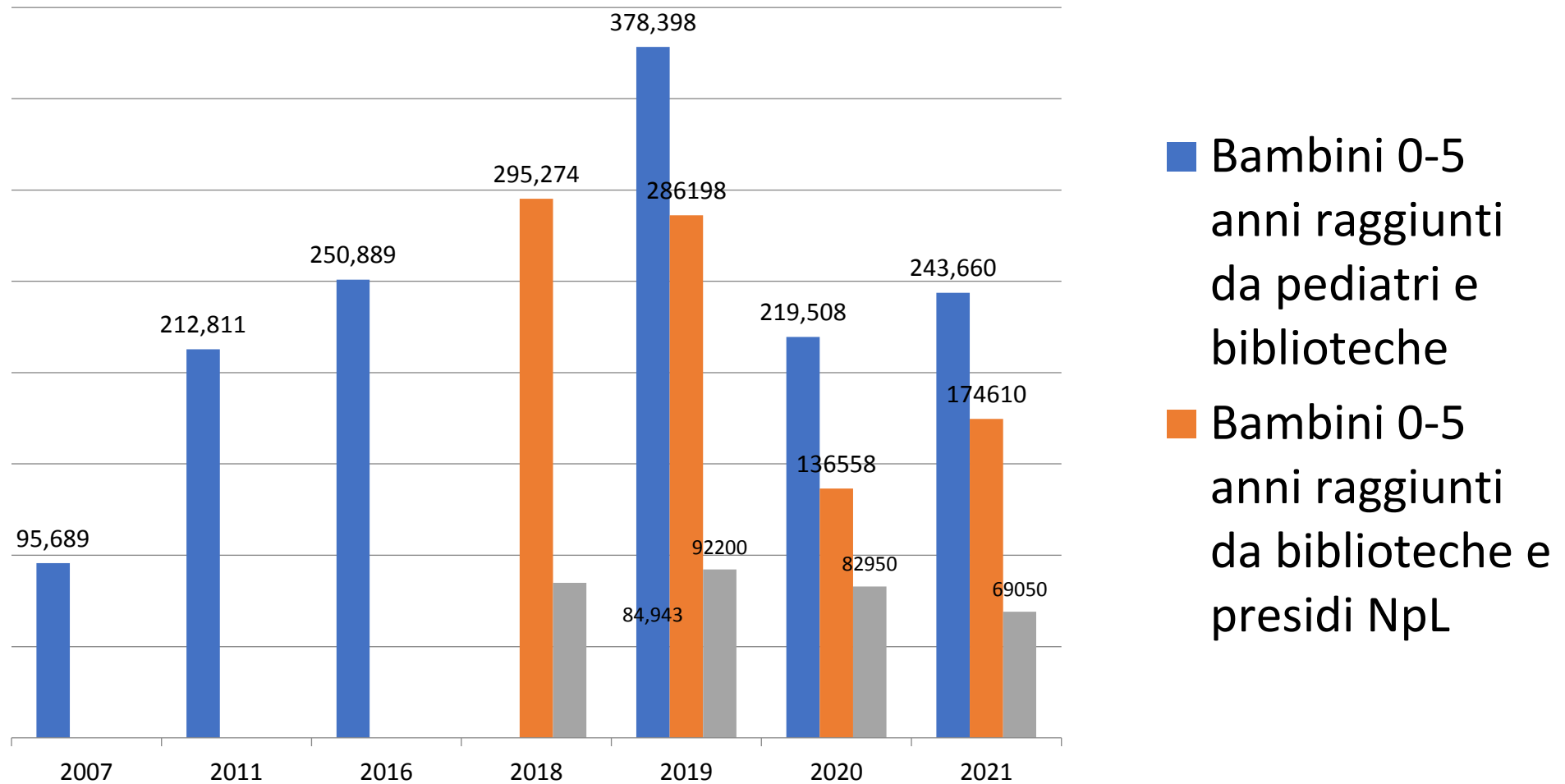


Npl Main Activities

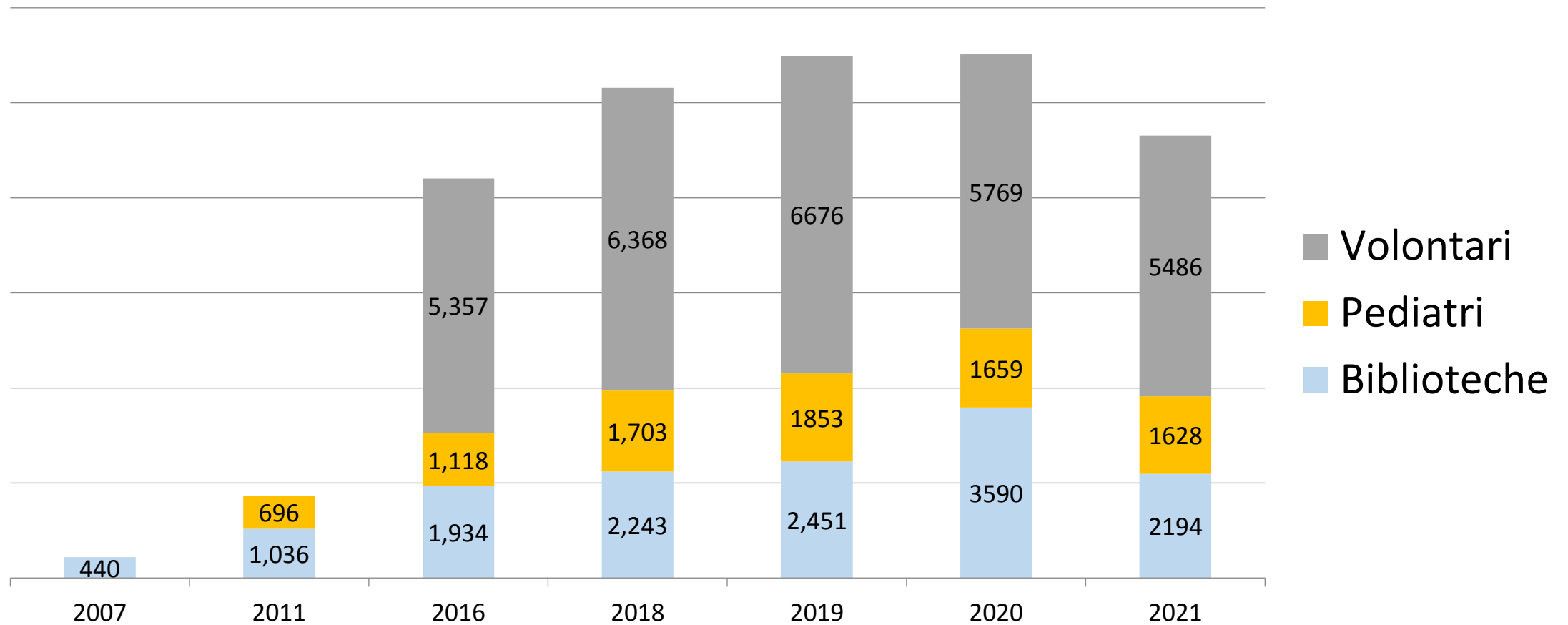
- Project promotion and communication through leaflets, information materials, bibliographies
- Reading laboratories with parents in health, educational and social settings
- Training courses for reading volunteers
- Monitoring and Evaluation
- Operational Research

Implementation monitoring

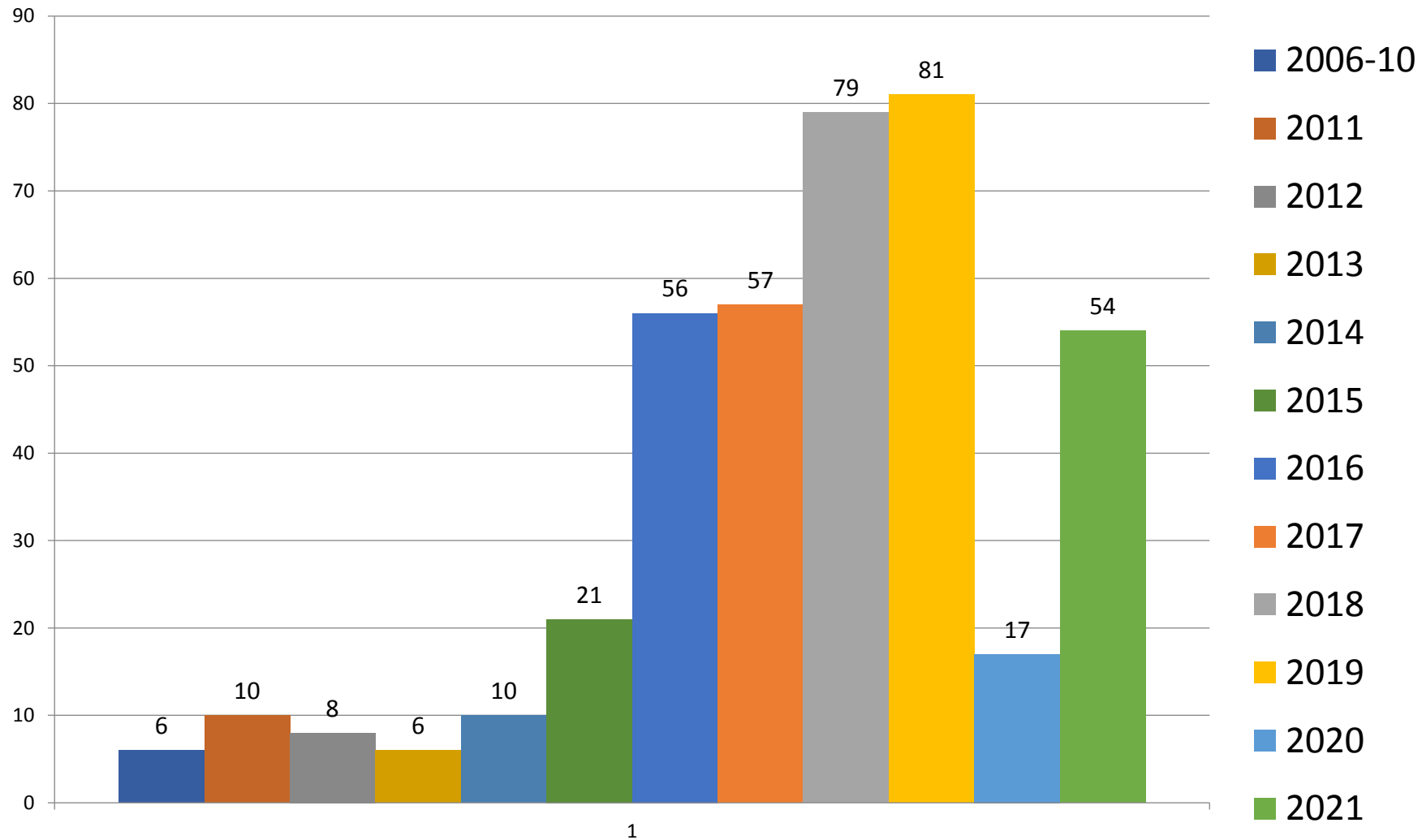
n. Children 0-6 reached by the program, including Covid period



n. People working for the program 2007 - 2021

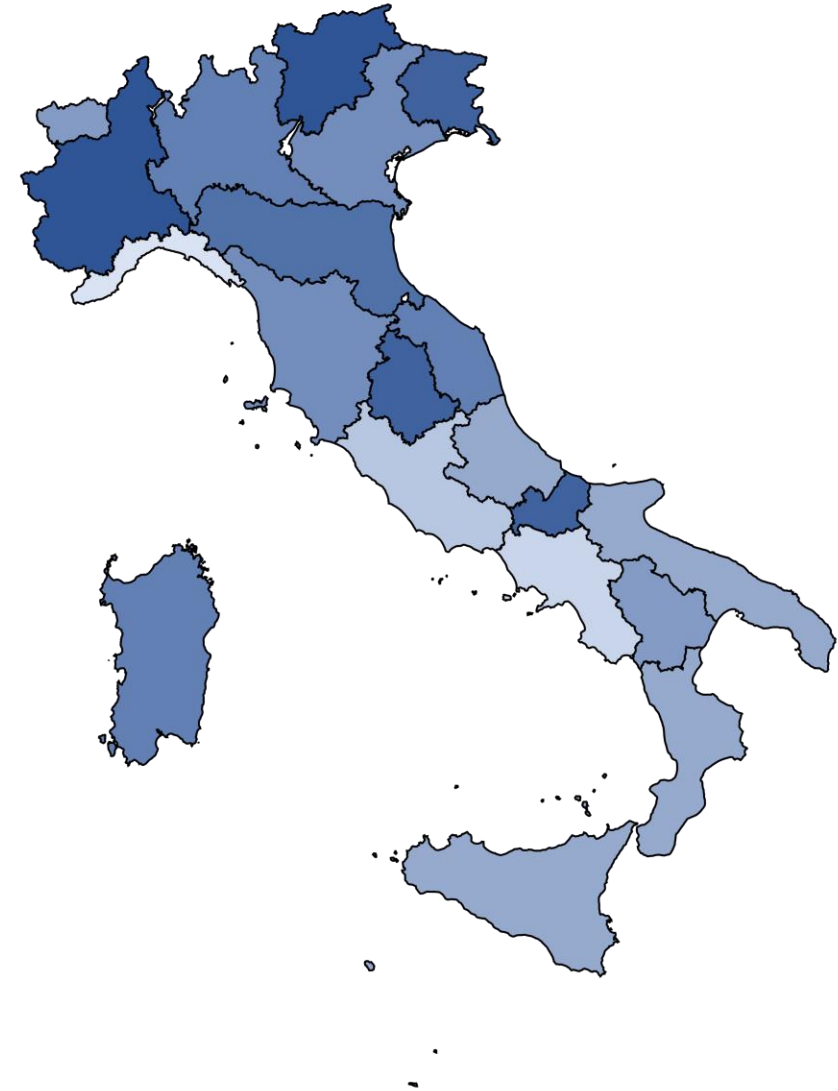


N training courses 2006 - 2021



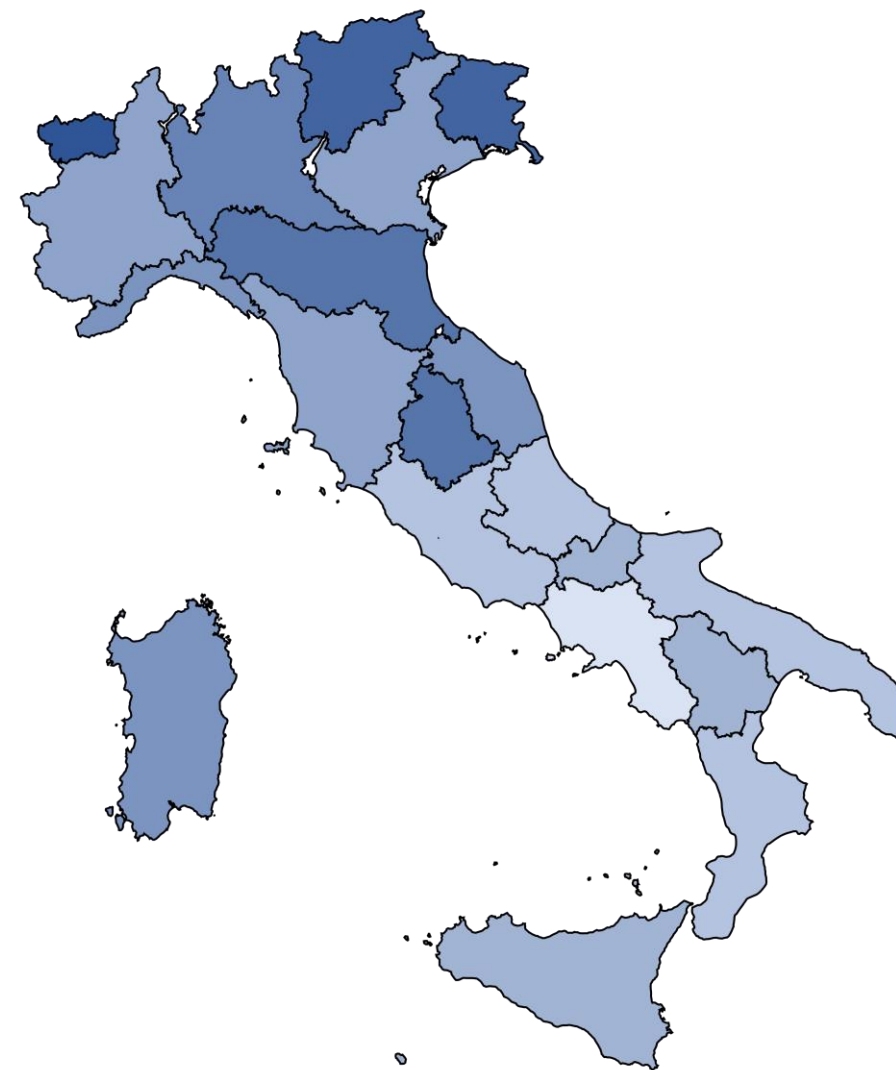
Municipalities/population ratio

Regione	Comuni che aderiscono a NpL	Numero bambini in età 0-5	Rapporto
Piemonte	408	181868	446
Trentino- Alto Adige	100	59319	593
Friuli Venezia Giulia	68	48853	718
Molise	15	11734	782
Umbria**	45	36833	819
Emilia-Romagna	209	200884	961
Lombardia	418	471150	1127
Marche	51	63733	1250
Sardegna	45	58372	1297
Toscana	92	153469	1668
Veneto	115	218154	1897
Valle D'aosta	2	5321	2661
Basilicata	8	22809	2851
Calabria	28	91219	3258
Puglia	51	175970	3450
Sicilia	69	242356	3512
Abruzzo	14	55803	3986
Lazio**	40	268682	6717
Campania**	25	293127	11725
Liguria	#	57517	#
Totale	1.803	2.717.173	1.507



Libraries/ population ratio

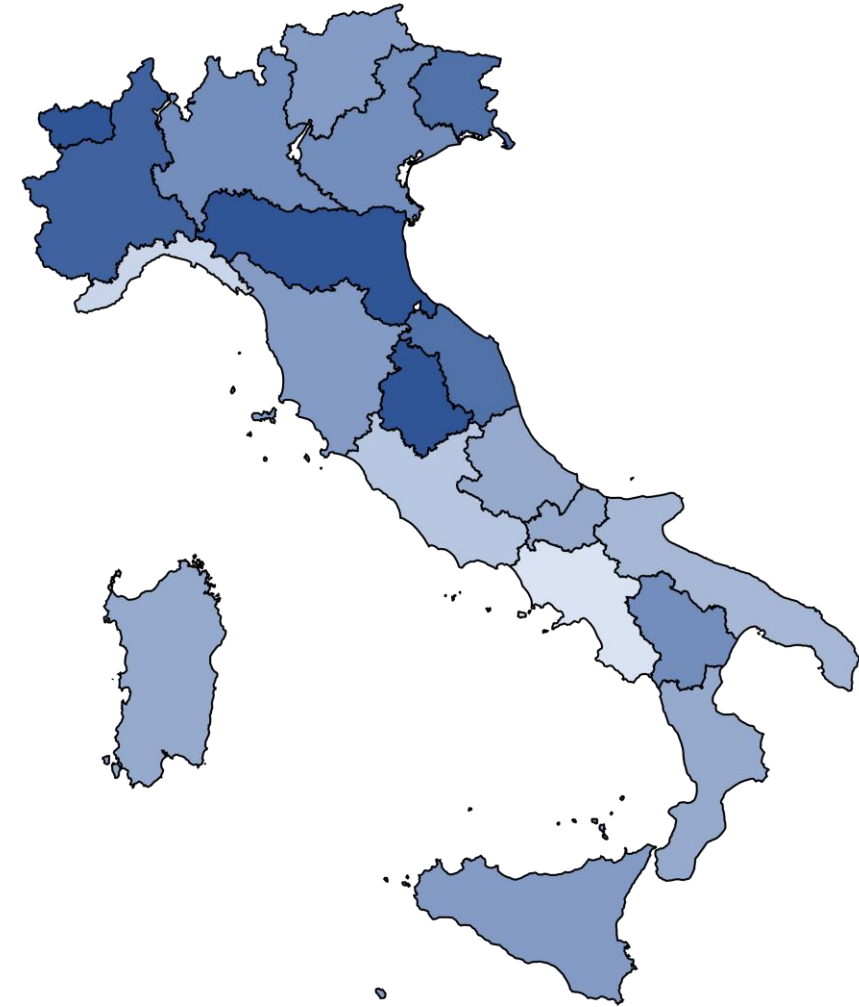
Regione	Biblioteche che promuovono NpL	Numero bambini in età 0-5	Rapporto
Valle D'aosta	49	5321	109
Friuli Venezia Giulia	143	48853	342
Trentino- Alto Adige	90	59319	659
Umbria**	45	36833	819
Emilia-Romagna	244	200884	823
Lombardia	506	471150	931
Sardegna	44	58372	1327
Liguria	43	57517	1338
Marche	47	63733	1356
Veneto	133	218154	1640
Toscana	80	153469	1918
Piemonte	90	181868	2021
Basilicata	8	22809	2851
Molise	4	11734	2934
Sicilia	78	242356	3107
Lazio**	76	268682	3535
Puglia	46	175970	3825
Calabria	23	91219	3966
Abruzzo	14	55803	3986
Campania**	8	293127	36641
Totale	1.771	2.717.173	1.534



3642 totale biblioteche per ragazzi in Italia (Anagrafe delle biblioteche italiane, 2020)

Paediatricians /population ratio

Regione	Pediatri che promuovono NpL	Numero bambini in età 0-5	Rapporto
Umbria**	105	36833	351
Valle D'aosta	12	5321	443
Emilia-Romagna	410	200884	490
Piemonte	229	181868	794
Friuli Venezia Giulia	56	48853	872
Marche	60	63733	1062
Basilicata	17	22809	1342
Lombardia	263	471150	1791
Veneto	119	218154	1833
Sicilia	115	242356	2107
Trentino- Alto Adige	25	59319	2373
Toscana	55	153469	2790
Abruzzo	17	55803	3283
Sardegna	17	58372	3434
Calabria	26	91219	3508
Molise	3	11734	3911
Puglia	38	175970	4631
Lazio**	40	268682	6717
Liguria	6	57517	9586
Campania**	15	293127	19542
Totale	1.628	2.717.173	1.669

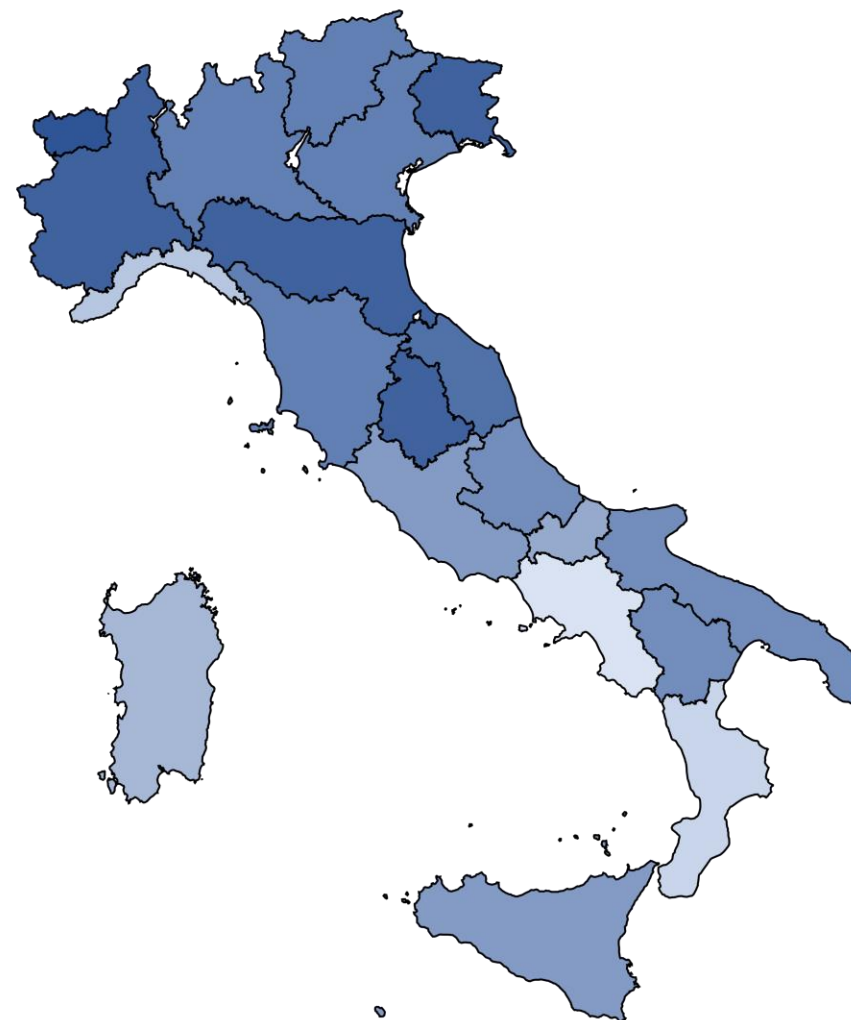


7705 totale pediatri di libera scelta in Italia (Istat, 2013)

Day care centres /population ratio

pubblici o privati che aderiscono a NpL

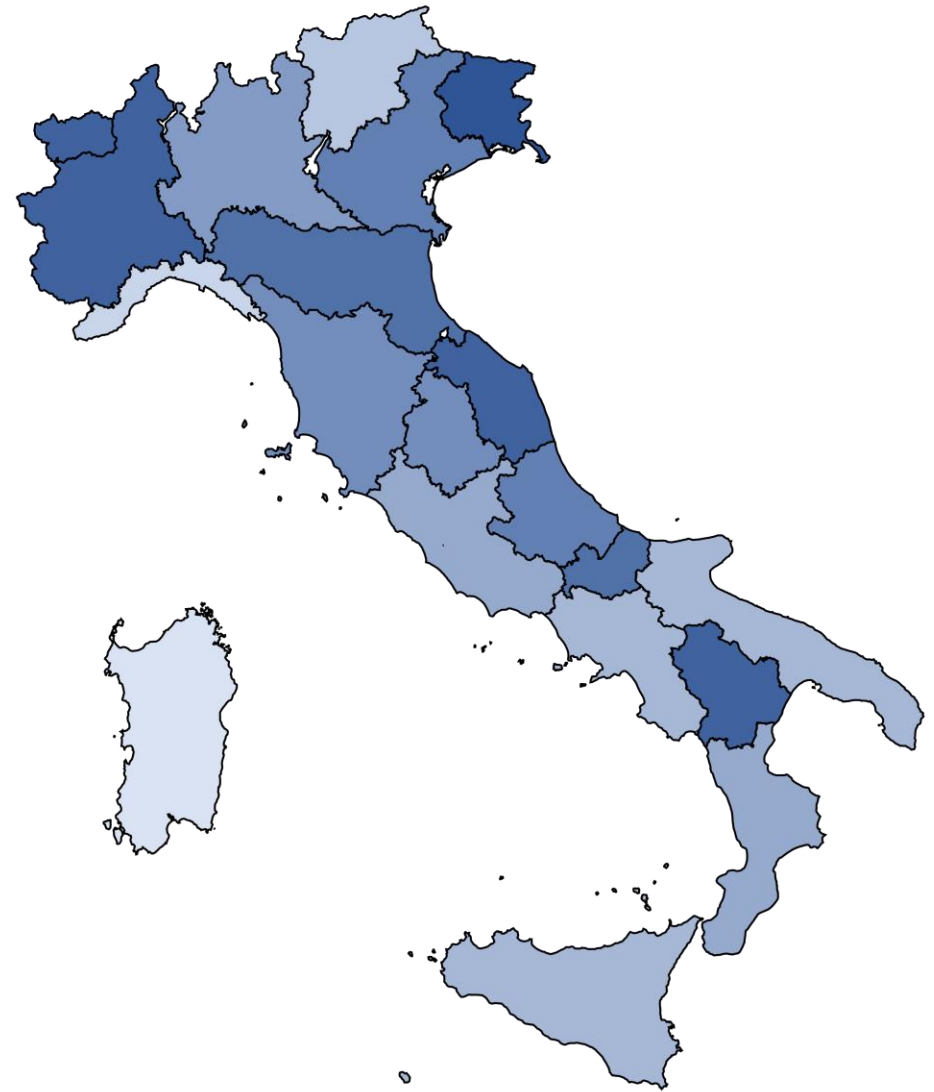
Regione	Nidi pubblici o privati	Numero bambini in età 0-5	Rapporto
Valle D'aosta	59	5321	90
Friuli Venezia Giulia	111	48853	440
Umbria**	81	36833	455
Emilia-Romagna	415	200884	484
Piemonte	322	181868	565
Marche	85	63733	750
Lombardia	425	471150	1109
Trentino- Alto Adige	50	59319	1186
Toscana	120	153469	1279
Veneto	124	218154	1759
Basilicata	8	22809	2851
Puglia	57	175970	3087
Abruzzo	17	55803	3283
Sicilia	52	242356	4661
Lazio**	55	268682	4885
Molise	2	11734	5867
Sardegna	9	58372	6486
Liguria	6	57517	9586
Calabria	6	91219	15203
Campania**	8	293127	36641
Totale	2.012	2.717.173	1.350



12213 totale nidi pubblici e privati in Italia (Istat, 2020)

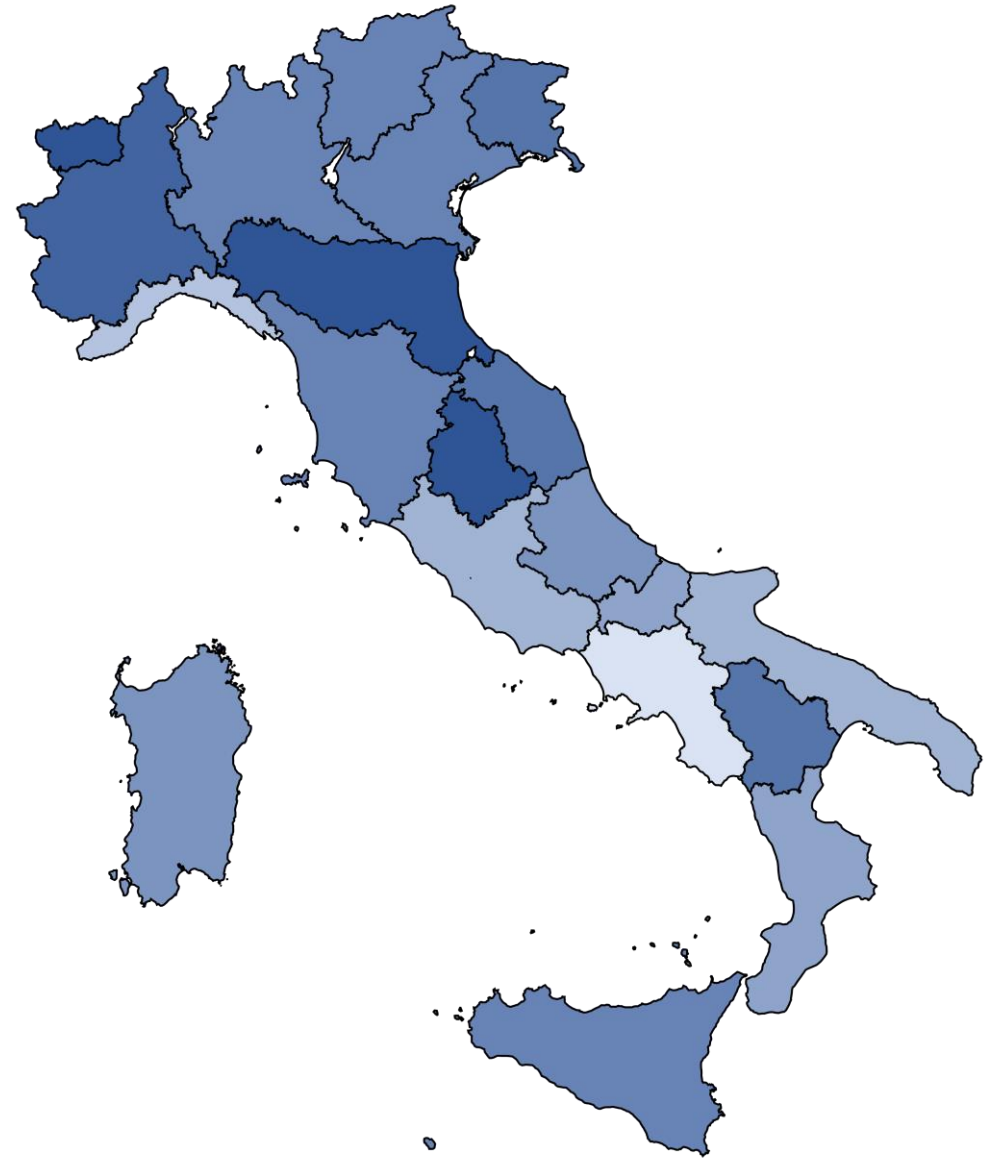
Volunteers/population

Regione	Volontari che promuovono NpL	Numero bambini in età 0-5	Rapporto
Friuli Venezia Giulia	506	48853	97
Valle D'aosta	41	5321	130
Marche	403	63733	158
Piemonte	1120	181868	162
Basilicata	129	22809	177
Emilia-Romagna	844	200884	238
Molise	40	11734	293
Abruzzo	161	55803	347
Veneto	452	218154	483
Umbria**	61	36833	604
Toscana	248	153469	619
Lombardia	607	471150	776
Calabria	90	91219	1014
Lazio**	247	268682	1088
Sicilia	190	242356	1276
Puglia	133	175970	1323
Campania**	175	293127	1675
Trentino- Alto Adige	25	59319	2373
Liguria	10	57517	5752
Sardegna	4	58372	14593
Totale	5.486	2.717.173	495

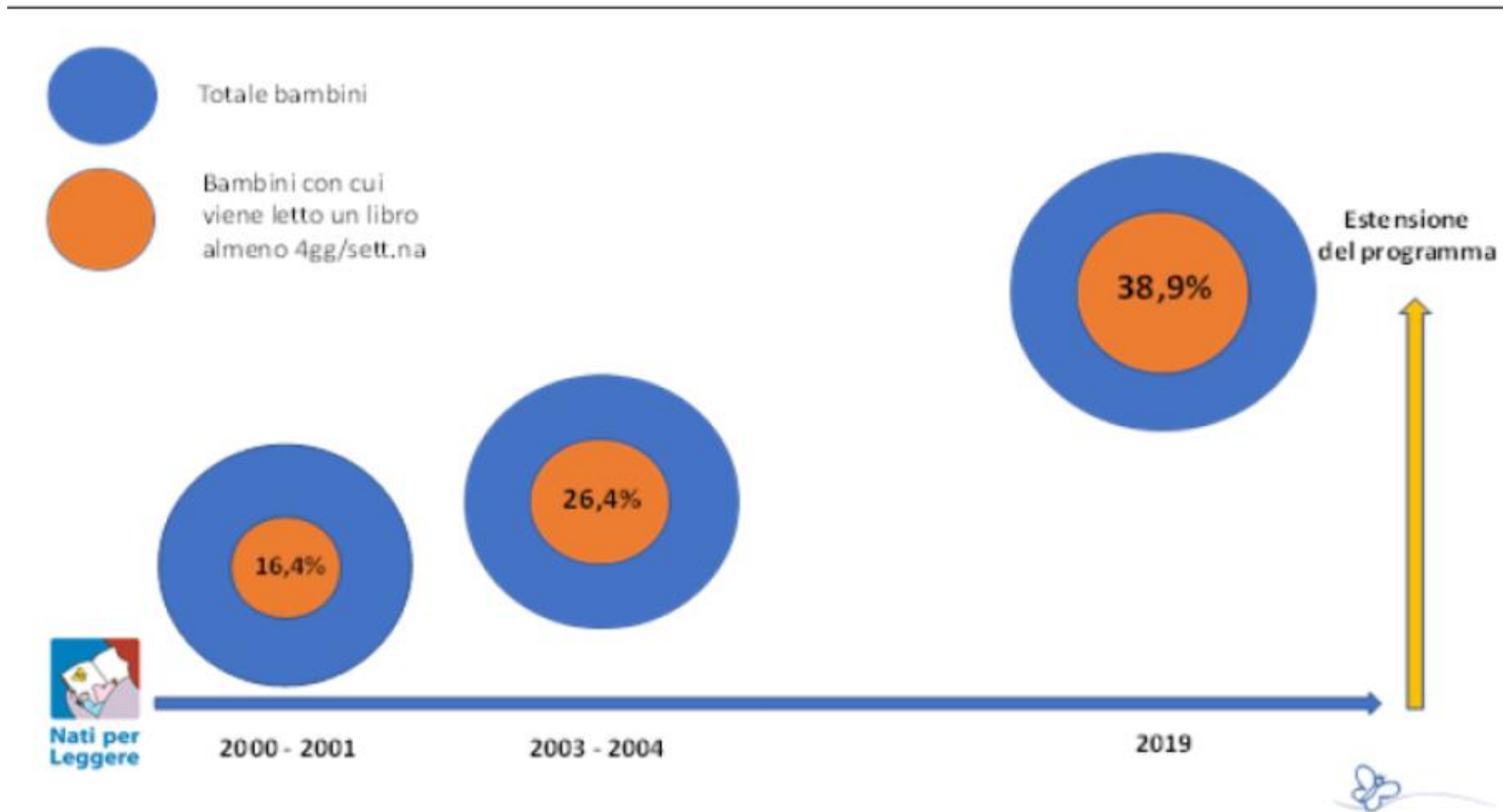


New born babies reached out by NpL paediatricians / population ratio

Regione	Nuovi nati raggiunti dai pediatri NpL	Numero nuovi nati	Rapporto
Umbria**	5250	5488	1
Valle D'aosta	600	784	1
Emilia-Romagna	20500	29948	1
Piemonte	11450	27170	2
Friuli Venezia Giulia	2800	7459	3
Marche	3000	9462	3
Basilicata	850	3499	4
Lombardia	13150	69292	5
Veneto	5950	32716	5
Sicilia	5750	37387	7
Trentino- Alto Adige	1250	9230	7
Toscana	2750	22427	8
Sardegna	850	8243	10
Abruzzo	850	8249	10
Calabria	1300	13928	11
Molise	150	1706	11
Puglia	1900	26373	14
Lazio**	2000	38162	19
Liguria	300	8818	29
Campania**	750	46010	61
Totale	81.400	406.351	5



Improvement in shared reading practice at home since NpL started (national sample, approx 600 4-year-old)



Early reading and child development



Cognitive development
(language, executive functions)

socio-relational development
(emotions, mindfulness...)

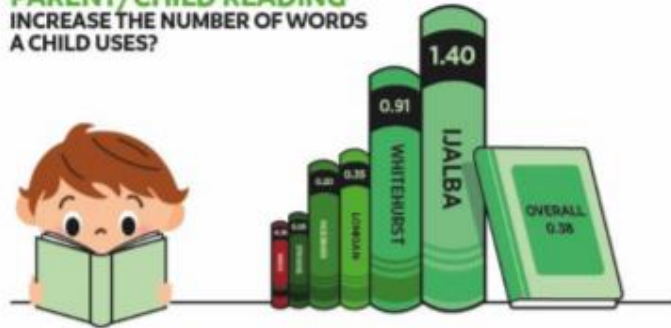


Long term impact (numeracy and
literacy skills, overall school
performance)

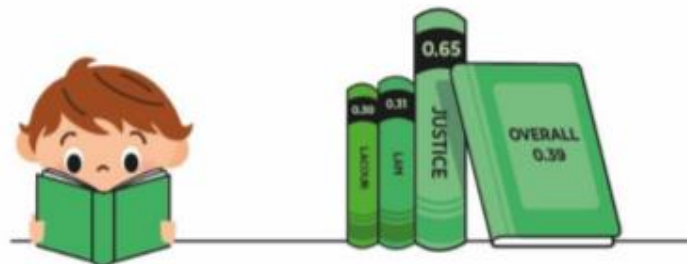
HOW MUCH DOES
PARENT/CHILD READING
IMPROVE A CHILD'S
UNDERSTANDING OF WORDS?



HOW MUCH DOES
PARENT/CHILD READING
INCREASE THE NUMBER OF WORDS
A CHILD USES?

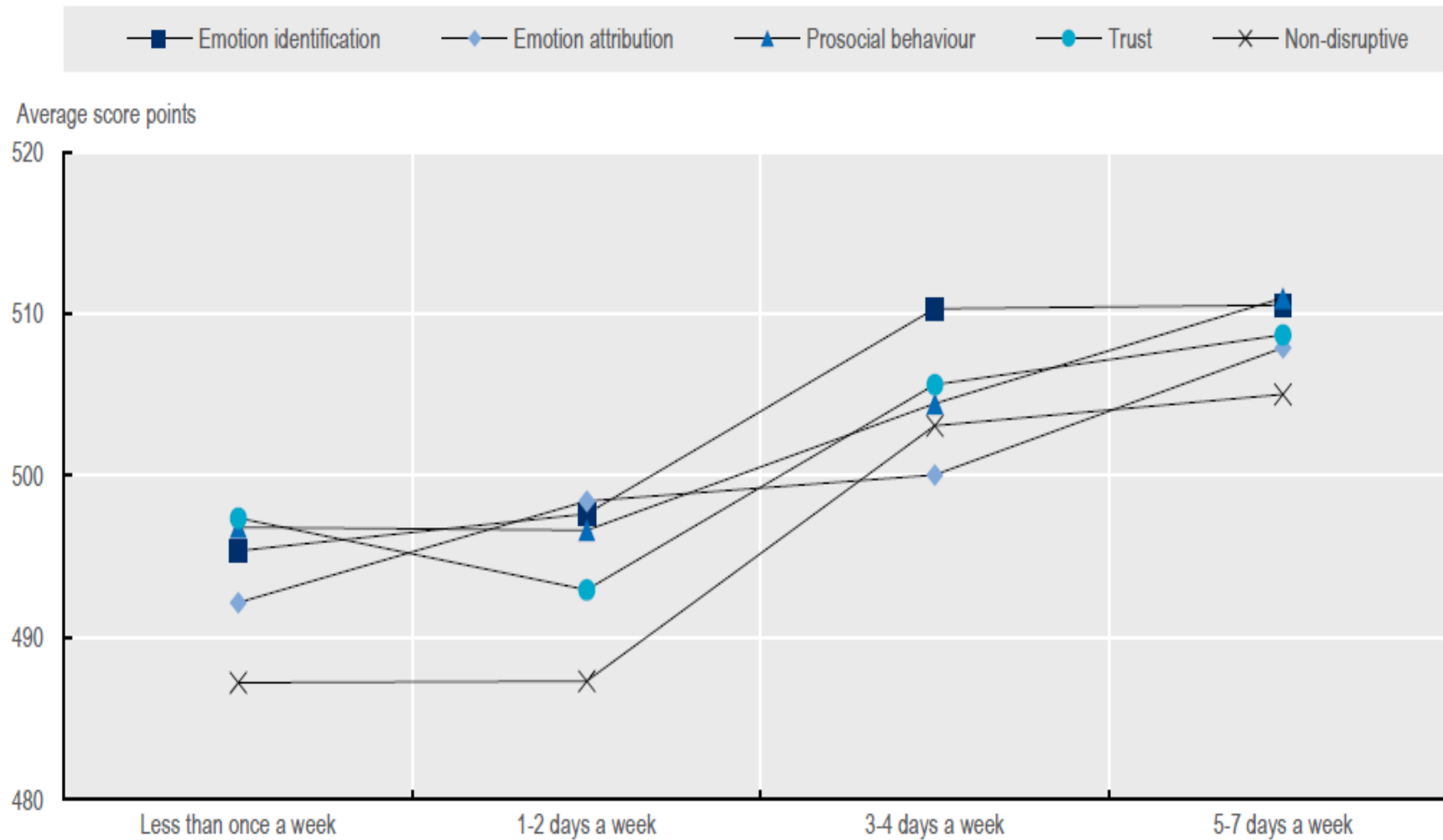


HOW MUCH DOES
PARENT/CHILD READING
IMPROVE A CHILD'S PRE-READING SKILLS?



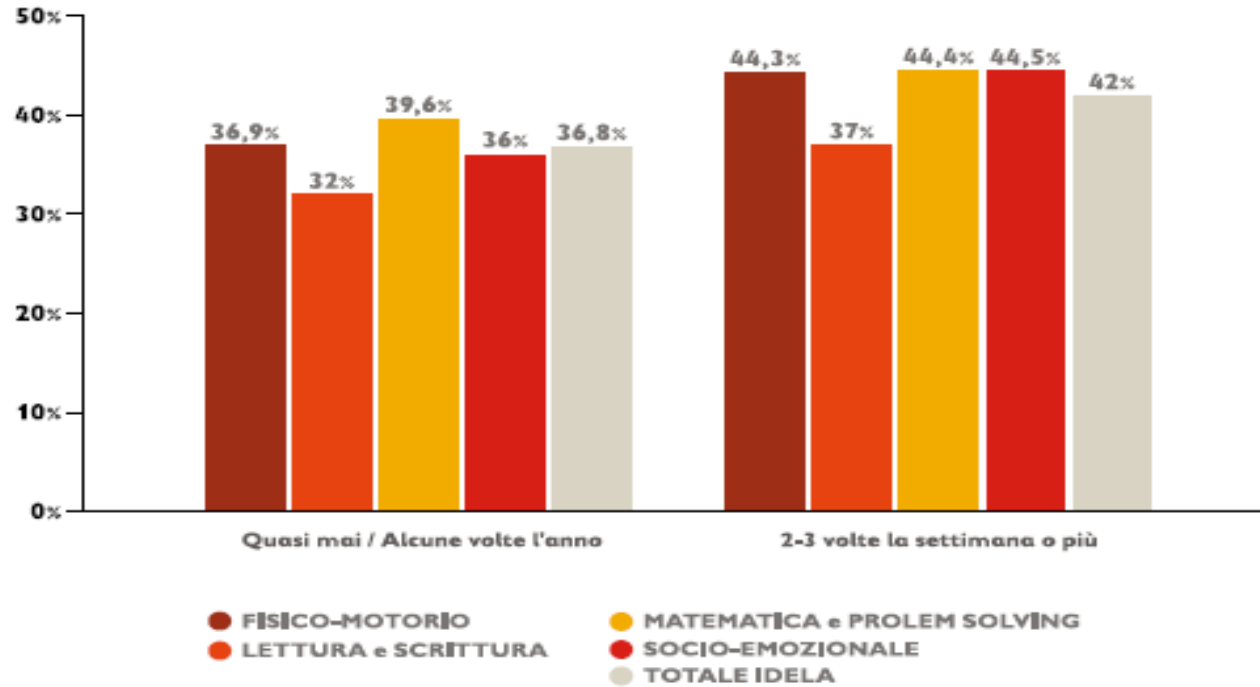
Parent-child reading to improve language development and school readiness:
A systematic review and meta-analysis
(Newcastle Univ. 2018)

Social and emotional skills at age 5 by frequency of home reading



Fonte: OECD, 2020, Early Learning and Child Well-being Study

IDELA study (Italy, 2019) : child cognitive and social skills related to parental SES, day care and...reading at home



Reading at home

Never or very rarely

At least 3 times

The ultimate evidence on home reading and screen time...



Received: 23 September 2019 | Revised: 25 November 2019 | Accepted: 29 November 2019

DOI: 10.1111/apa.15124

REGULAR ARTICLE

ACTA PÆDIATRICA
WILEY

Associations between home literacy environment, brain white matter integrity and cognitive abilities in preschool-age children

John S. Hutton^{1,2}  | Jonathan Dudley^{2,3} | Tzipi Horowitz-Kraus^{1,2,3,4}  |
Tom DeWitt^{1,2} | Scott K. Holland^{2,3,5}

- **Associations Between Screen-Based Media Use and Brain White Matter Integrity in Preschool-Aged Children**

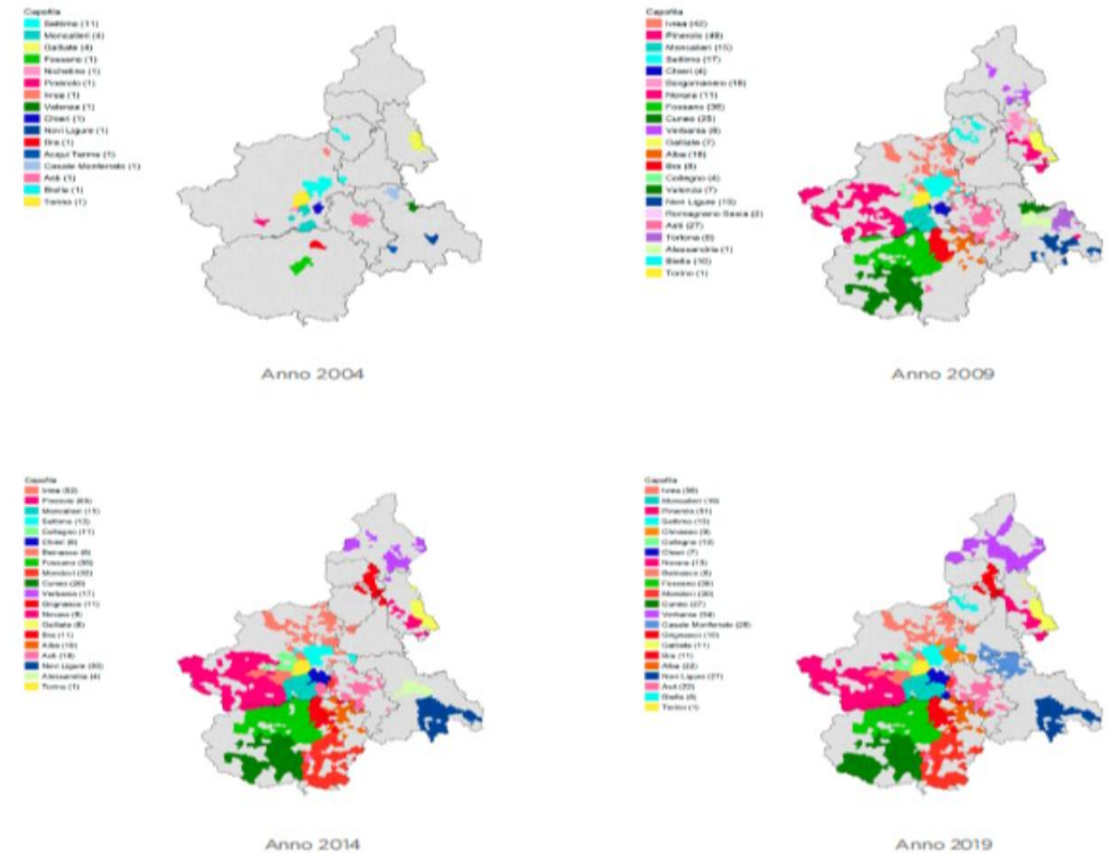
John S. Hutton, et al. *JAMA Pediatr.* 2019.

NpL impact evaluation in Italy

Piedmont region (Northwestern Italy, 4.5 million inhab.)

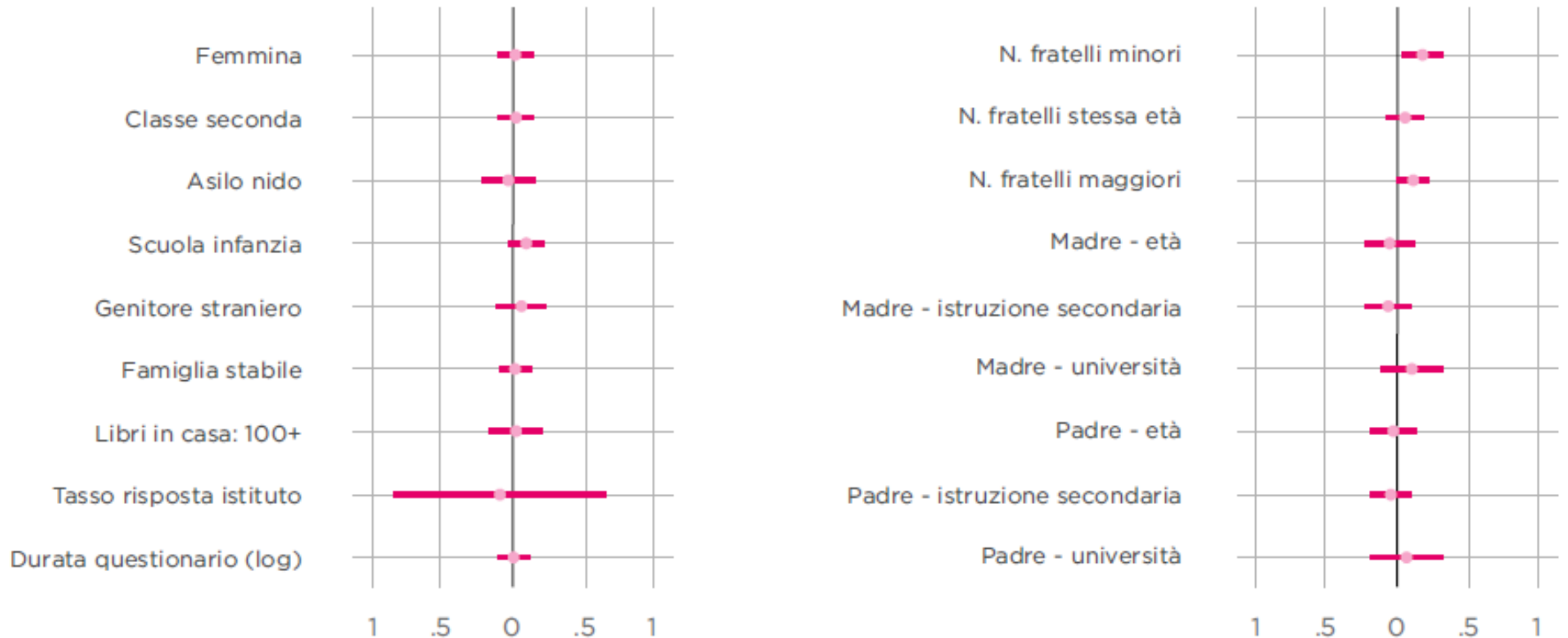
- Counterfactual approach (full implementation, partial implementation vs no implementation)
- Including short and long-term effects (9 and 15 year-old) on reading, other practices incl. digital device use, school performance
- Overall sample of 1761 families (Q) and 144 schools

Figura 2 - Distribuzione territoriale dei progetti NpL negli anni 2004, 2009, 2014, 2019



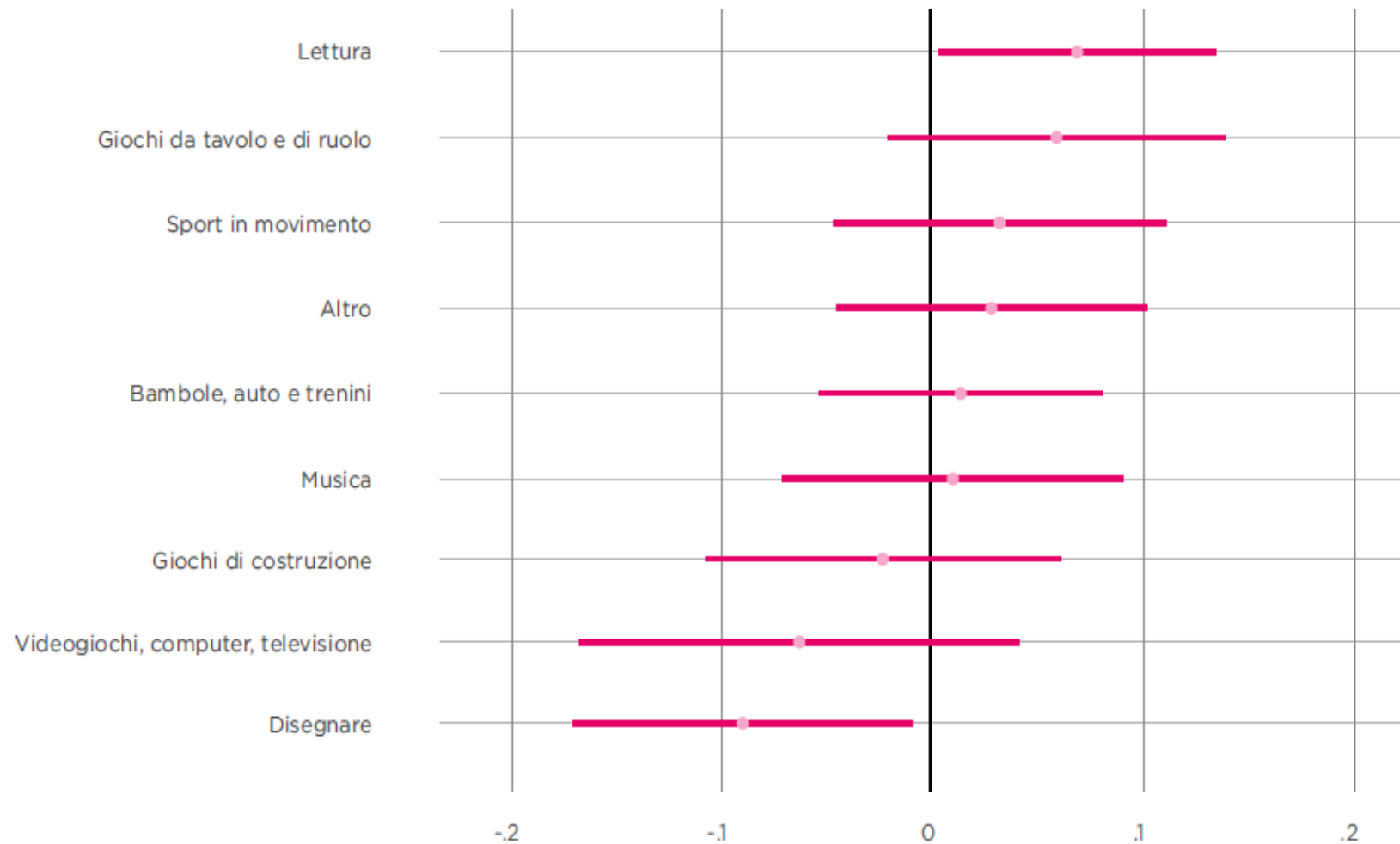
Matching exposed vs non exposed

Figura 14 - Differenze tra gruppo trattato e gruppo di controllo



Impact on children's activities

Figura 18 - Impatto di NpL sulle preferenze per diverse attività



Impact on activities (full vs partial implementation)

Figura 19 - Eterogeneità degli effetti, a seconda della qualità dei progetti locali

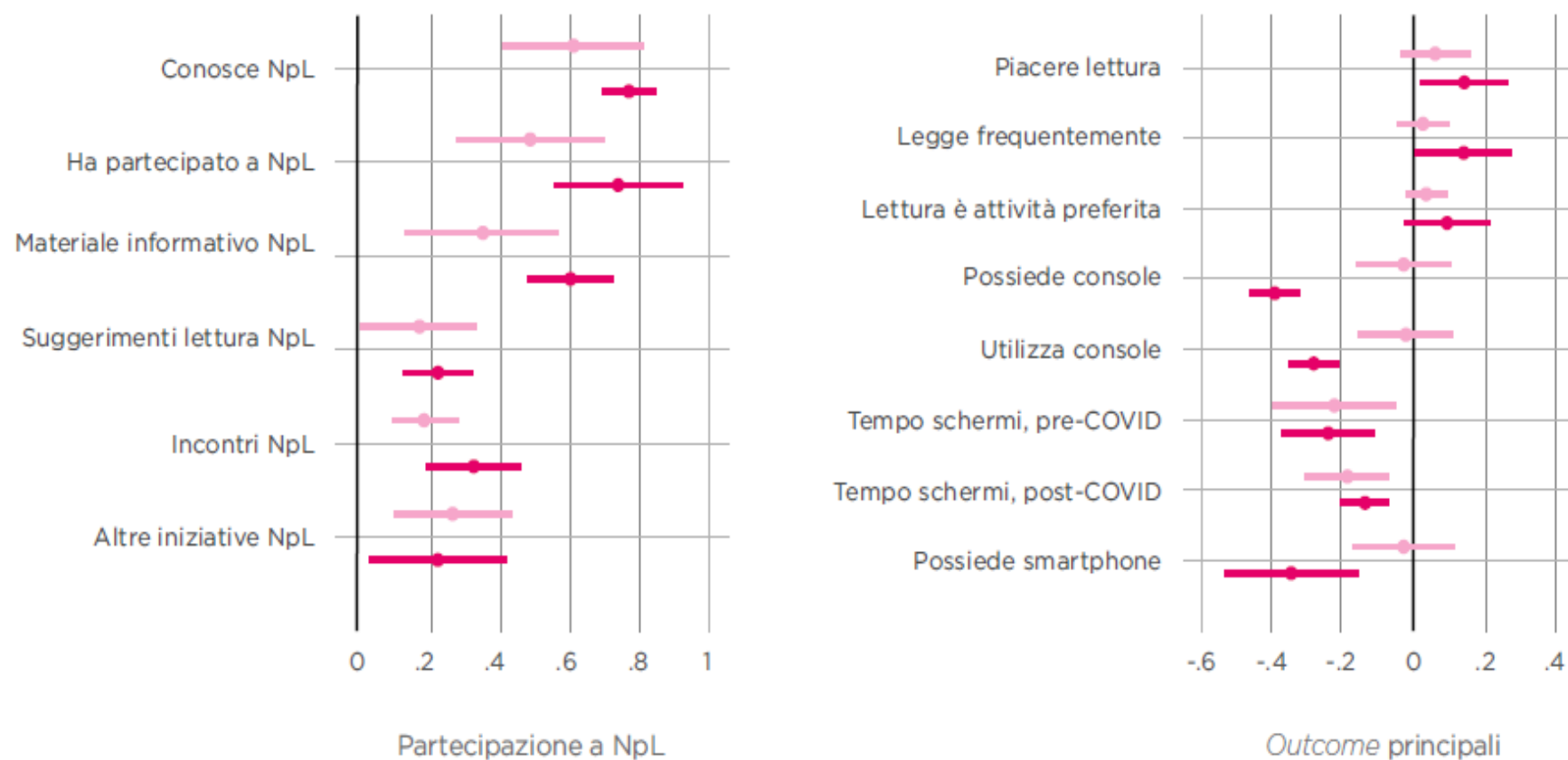
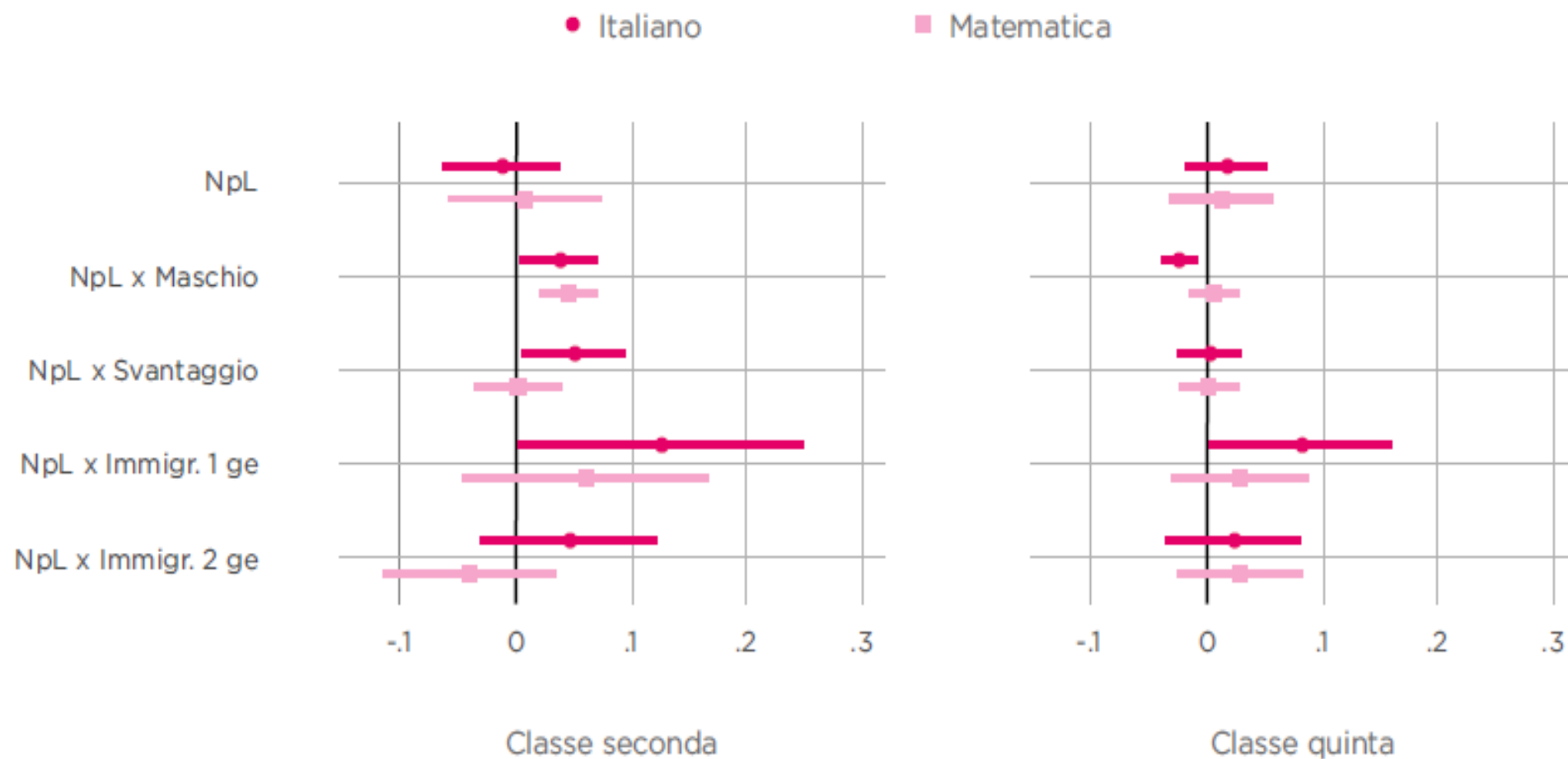


Figura 23 - Effetto dell'esposizione a NpL sui risultati del test INVALSI di Italiano e Matematica, classe seconda e quinta



Challenges of impact evaluation

- Complex intervention with many contents and several contextual determinants
- Data collection (quality, cost, acceptance, attrition...)
- Theory of change assumptions, not all can be controlled

Thank you