



# Science and beyond science in the reporting of quality of facility-based maternal and newborn care during the COVID-19 pandemic—Authors' reply

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In their correspondence, Bernardes et al.<sup>1</sup> underscore discrepancies between a few results of the IMAGiNE EURO survey related to Portugal<sup>2</sup> and the national statistics or other surveillance systems. However, data are not directly comparable. IMAGiNE EURO<sup>2</sup> collected information from mothers giving birth in both private and public facilities, during a specific time frame (i.e., the first year of the COVID-19 pandemic), while the other two datasets referred to by Bernardes et al. either covered a different time period or population (Table 1). Additionally, differences in findings for C-section (with 95% confidence intervals almost overlapping) and instrumental vaginal births (4.9% percent difference among databases) do not seem substantial.

Bernardes et al.<sup>1</sup> also expressed their disappointment towards how data were reported by media.<sup>1</sup> It seems that Portuguese media focused on a minor part of the published paper,<sup>2</sup> taken out of its context and not fully discussed. Misinterpretation and partial reporting by media is a well-known phenomenon; however, how the media chooses to report research is beyond our control.

We do not believe that this should refrain researchers from publishing their data.

The IMAGiNE EURO survey made available substantial amounts of information. Specifically, the IMAGiNE EURO Project collect 80 Quality Measures based on WHO Standards, which have been developed by a group of 116 experts from 46 countries.<sup>3</sup> Most Quality Measures, such as those on “experience of care” and “availability of resources” are currently missing from most national statistics. These findings complement existing national statistics, by providing new evidence. Most importantly, this new evidence can be used constructively to improve quality of care for mothers, newborns, health professionals, and the entire community.

Further, with the objective of having a comprehensive perspective, the IMAGiNE EURO Project deliberately included two complementary data sources: the perspectives of mothers,<sup>2</sup> and the perspectives of health professionals (results forthcoming).<sup>4</sup> We agree that adding additional questions to the information already collected by the IMAGiNE EURO surveys – currently 80 Quality Measures and 20 socio-demographic variables – may be useful, especially to enhance data on the responders' clinical characteristics, however this needs to be balanced with appropriateness of data sources, privacy, and survey length from responders.

From the methodological side, several measures were adopted to reduce the risk of bias in the IMAGiNE EURO surveys.<sup>2</sup> These included: the questionnaires were formally validated for content, construct, face validity, intra-rater reliability, and internal consistency, and were field tested to verify acceptability and utility<sup>4,5</sup>;

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	IMAgINE EURO (Portugal) <sup>1</sup>			INE <sup>2</sup>			CPDO <sup>3</sup>		
Time period	Mar 2020 – Mar 2021			Jan 2020 – Dec 2020			Mar 2020 – Mar 2021		
Regions of Portugal	All regions			Nationwide			North, Centre, and Lisbon Metropolitan Area		
Type of facilities	Private and public			Private and public			Public		
Total number of births	N = 1,685			N = 83,873			N = 23,368		
	n	%	95%CI	n	%	95%CI	n	%	95%CI
C-sections	573	34.0	31.7–36.3	30,412	36.3	35.9–36.6	7,140	30.6	30.0–31.1
IVB	400	23.7	21.7–25.8	15,807	18.8	18.6–19.1	4,910	21.0	20.5–21.5
Episiotomy rate in non-IVB <sup>4</sup>	290/712	40.7	37.1–44.3	NA			3,539/ 11,318	31.3	30.4–32.1

**Table 1: Evidence from different datasets reporting on key indicators from Portugal during the COVID-19 pandemic.**  
Abbreviations: CI: confidence intervals; CPDO = Consórcio Português de Dados Obstétricos, Portugal; INE= Instituto Nacional de Estatística, Portugal; IVB: instrumental vaginal births; NA = not available.  
Notes: <sup>1</sup>Lazzerini M et al *Lancet Reg Health Eur* 2022;13:100268; <sup>2</sup>Instituto Nacional de Estatística – Statistics Portugal. Available [https://www.ine.pt/xportal/xmain?xpgid=ine\\_main&xpid=INE&xlang=](https://www.ine.pt/xportal/xmain?xpgid=ine_main&xpid=INE&xlang=); <sup>3</sup>Consórcio Português de Dados Obstétricos (CPDO). Available at: <https://cpdo.virtualcare.pt/>. Accessed 5 July 2020; <sup>4</sup>Frequency of episiotomy and number of non-IVB (n/N) was reported.

translation and back-translation was conducted in 25 languages<sup>2</sup>; data were cleaned according to predefined procedures; multivariate and sensitivity analyses were conducted.<sup>2</sup> On average, routinely collected data are protected by many fewer quality assurance measures. As such, new evidence generated by IMAgINE EURO is valuable.

Several published<sup>2,6</sup> and upcoming papers from the IMAgINE EURO Project are reporting heterogeneous quality of care across countries and across regions in the same country. However, data comparisons across countries or regions should be used constructively and proactively, aiming at improving quality of care. IMAgINE EURO findings can be used at different levels of the health system including by health authorities to identify needs for additional resources for the health systems; by scientific societies to identify needs for clinical protocols/training, and by health professionals to improve their own practices – such as improving communication with mothers or adjusting the clinical environment to improve privacy and other aspects in experience of care.

IMAgINE EURO is strongly committed to work toward better quality of care for the whole community in an inclusive manner. The research network is multidisciplinary, including many different types of professionals: physicians, midwives, breastfeeding consultants, public health specialists, anthropologists, women's rights advocates, and mothers. We actively welcome partnership with any professional and scientific societies, research units, or individuals genuinely committed to improving the quality of care for mothers and newborns around the time of childbirth. The IMAgINE EURO Network currently includes 31 institutions in 20 WHO European countries and has so far collected the opinions of more than 50,000 women and 4,000 health professionals. The study network and results are continuously growing, reflecting the strong motivation by health

professionals to improve quality of care, and the importance of this topic to women.

#### Contributors

ML wrote the first draft, with major inputs from all authors. All authors have approved the final version of the manuscript for submission.

#### Declaration of interests

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All other authors have none to declare.

#### References

- Bernardes J, Reynolds A. Science and beyond science in the reporting of quality of facility-based maternal and newborn care during the COVID-19 pandemic. *Lancet Reg Health Eur*. 2022;20:100487. <https://doi.org/10.1016/j.lanepe.2022.100487>.
- Lazzerini M, Covi B, Mariani I, et al. IMAgINE EURO study group. Quality of facility-based maternal and newborn care around the time of childbirth during the COVID-19 pandemic: online survey investigating maternal perspectives in 12 countries of the WHO European Region. *Lancet Reg Health Eur*. 2022;13:100268. <https://doi.org/10.1016/j.lanepe.2022.100268>.
- World Health Organization. Standards for improving quality of maternal and newborn care in health facilities; 2016. Available at: <https://www.who.int/publications/i/item/9789241511216>. Accessed 5 July 2020.
- Lazzerini M, Argentini G, Mariani I, et al. WHO standards-based tool to measure women's views on the quality of care around the time of childbirth at facility level in the WHO European region: development and validation in Italy. *BMJ Open*. 2022;12:e048195. <https://doi.org/10.1136/bmjopen-2020-048195>.
- Valente EP, Covi B, Mariani I, et al. WHO standards-based questionnaire to measure health workers' perspective on the quality of care around the time of childbirth in the WHO European region: development and mixed-methods validation in six countries. *BMJ Open*. 2022;12:e056753. <https://doi.org/10.1136/bmjopen-2021-056753>.
- Lazzerini M, Covi B, Mariani I, Giusti A, Pessa Valente E, IMAgINE EURO Study Group. Quality of care at childbirth: findings of IMAgINE EURO in Italy during the first year of the COVID-19 pandemic. *Int J Gynaecol Obstet*. 2022;157(2):405–417. <https://doi.org/10.1002/ijgo.14119>.