

**Title: Variation in caesarean section rates in Cyprus, Italy and Iceland: an analysis of the role of the media.**

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## Background:

Cyprus has Europe's highest rate of births by Caesarean Section (CS). In 2015 56% of all babies were born by CS. This compares with 36% in Italy, and 16% in Iceland, which is among the lowest rates in Europe. There is some evidence that CS rates are partly driven by maternal request and media representation.

## Purpose:

To explore the depiction of childbirth by CS in the media, and more specifically in newspapers, television, web and informational leaflets in Cyprus, Italy and Iceland.

## Methods:

A thematic review of the depiction of CS in the media of Cyprus, Italy and Iceland was carried out through an examination of newspapers, television, web, and informational material published or presented in the included countries in 2017. Materials were identified by searches in pubmed and Google, using pre-determined keywords, inclusion and exclusion criteria, and inclusion was agreed by at least two of the authors. Key themes in each data source were triangulated with each other and between the three countries.

## Results:

The review comprised 81 articles, 10 videos, six birth shows, two informational leaflets and one scientific paper. The central themes were a) CS as risky and unnecessary intervention, failure of maternity system, b) CS as a necessary, life-saving intervention, c) Ethical dimensions of CS, d) Changing landscape of childbirth and medicalization and e) Informed choices. In both Cyprus and Italy the media focus was on a need to reduce high levels of CS. The focus in Iceland was on normal birth and midwife led care.

## Discussion:

The differing media messages in the three countries could partly explain the differing CS rates, suggesting that high CS rates are a social phenomenon, rather than a result of clinical need. The media may have a significant influence on the beliefs and choices of maternity service users, their families, and society in general, as well as health professionals and policy makers.

Conclusion:

Those working in the media have an ethical responsibility to critically examine the impact of high national CS rates, and to report on solutions that could optimize both the safety and the wellbeing of mothers and babies.

Introduction

The last century has been significantly marked by scientific and technological advances in maternity care (1) (2). While these have been able to drastically reduce maternal and perinatal risks for the few women and babies that really need them, there is a growing debate about the overuse of medical interventions for the vast majority of healthy women and babies (3). As a result of this debate some countries have roll-out plans to humanize pregnancy and childbirth, either within their National Health Systems (4, 5) or through grassroots initiatives (6).

In Europe inter-country variation in interventions in maternity care is becoming more evident. Caesarean sections (CS) accounted for 56.9% of live births in Cyprus during the period of 2014-2015 (7), rendering Cyprus the country with the highest rate in Europe. In contrast, in Italy CS accounts for 35.3% of births, while Iceland's CS rate is almost one quarter of the rate in Cyprus, at 16% . Given the potential for maternal choice to influence CS rate, and the impact of the media on such decisions, this article seeks to examine the media discourses on CS in Cyprus, Italy and Iceland. These countries differ not only in CS rates, but also in the organizational structure of their health systems (Table 1).

Table 1. Perinatal care in Cyprus, Italy and Iceland

### Cyprus

Perinatal care in Cyprus is offered in five public hospitals and 28 private clinics. Midwives in Cyprus are autonomous professionals in perinatal care and this is happening only in the public sector (8, 9). The private sector provide obstetrician-led care and the environment do not encourage physiological birth (9). During 2014-2015, the Midwives' Committee organized a campaign to promote normal birth. In 2017, the non-governmental organization, Birth Forward Cyprus, held a campaign for CS awareness (10). The effect of CS on women's and babies' health and the increased financial cost create concern to the Ministry of Health and the House of Parliament (8).

### Italy

In Italy there are apparent geographical differences, with the highest rates recorded in the south of the country, especially in the private sector where medical models are dominant (11) (12). Midwife-led care is promoted in the Italian system through contemporary policies, yet is still poorly widespread in practice (11). Midwives are recognized by law as lead and

autonomous professionals in women's care. Midwifery areas of practice extend beyond childbirth and include health and sexual education for the community and screening of gynaecological cancers (13). Obstetric-led care appears to be culturally rooted and widely accepted by women (11).

## Iceland

In Iceland, there are seven maternity hospitals around Iceland, with different levels of service and only three offer CS (14, 15). The National University Hospital of Iceland has a prenatal care unit as well, specialized for women in high-risk pregnancy. The majority of midwives work either in antenatal care, at childbirth units or at postpartum units. The Icelandic health care system is a welfare system. Quality health care and good access to health services are a priority for the country leaders, regardless of where people live (16). Midwives are the primary caregivers during normal pregnancy, childbirth and the first postpartum week (14). There has been a debate about home birth safety in Iceland (17), but a recent retrospective cohort concluded that for low risk women, home birth was as safe as hospital birth (18).

## Methods:

Media discourses on CS in Cyprus, Italy and Iceland were searched initially in Pub Med and subsequently in Google, using the key words 'caesarean', 'media', 'television', 'magazine', 'opinion', 'belief', 'view' in English, and in the main language relevant to each country. Please see table two for the search terms used in each data source in each country, and the yield of material for each set of terms. The search was limited to material published in 2017.

Table 2: Search terms used in each data source in each country, and the yield of material for each set of terms.

The main inclusion criteria was for any material that included information on CS and that was directly related to maternity care in the three countries; fully accessible, presented any form of media, scientific information or advice from healthcare professionals, as well as articles that presented the experiences, views, comments or opinions of women, celebrities or journalists/writers regarding childbirth through CS.

Exclusion criteria were opinions in Facebook, articles that reported on the use of CS only for high-risk or selected populations (e.g. teenagers, older women, human immunodeficiency virus-positive patients or with other specific medical conditions).

In Italy textual data were collected searching from the available online version of the first three newspapers indicated as the most read in Italy (*'Corriere della Sera'*, *'La Repubblica'* and *'Il Sole 24 Ore'*). In Cyprus all newspapers were included in the analysis.

Articles that met these inclusion/exclusion criteria at the title, outline or abstract stage of the search were selected for full text reading and data extraction.

## **Analysis**

All material was read or watched/listened to by at least two authors and thematic analysis according to Braun and Clarke (2006) (19), was undertaken to identify the key themes through reading - re-reading, listening and transcribing. The video/tv material was observed as a whole, and then thematic concepts were recorded for the whole data set by each reviewer assigned to this material, and agreement on the final themes for this material was agreed by consensus. A second level of agreement was then reached with at least two members of the author group on the themes across the different types of media within country and then between countries.

As this is a secondary analysis of existing literature and no primary data were collected no ethical approval was required.

## **Results**

The review comprised of a total of 81 articles, 10 videos, six birth shows, two informational leaflets and one scientific paper. Most media came from Cyprus.

The central themes were:

1. CS as risky and unnecessary intervention, failure of maternity system
2. CS as a necessary, life-saving intervention
3. Ethical dimensions of CS.
4. Changing landscape of childbirth and medicalization
5. Informed choices

### **1. CS AS RISKY AND UNNECESSARY INTERVENTION, FAILURE OF MATERNITY SYSTEM**

In most of the Cyprus media, women and health professionals (primarily, but not only midwives), state representative view CS as mostly an inappropriate, risky intervention resulting from the failure of maternity system.

*“as obstetrician we know that there are risks with CS.....”* (20)

In the private sector, some obstetricians perform only CS and the president of Midwives' Committee in Cyprus comments that midwives in the private sector are not autonomous

professionals, but rather employees of the obstetricians who are the administrators of private maternity clinics (20).

Most of the included media in Cyprus emphasize that CS, as any other surgical procedure, has consequences for both mother and baby. The risks mentioned for the mother were the increased possibility of requiring a hysterectomy, post-surgery complications, infection of the surgical wound, and triple the chance of mortality with every consequent pregnancy and birth (21), (22), (10). The risks mentioned for the child were respiratory difficulties during and after birth, increased chance of admittance to ICU, and a higher possibility of developing asthma, diabetes, obesity and allergies [(23) video 8]. In a TV discussion, a paediatrician, midwives and Birth Forward representatives expressed their concerns in relation to the consequences of CS for premature babies, as many obstetrician proceed with CS before or at 37 weeks of gestation [(23) (24) video 6, 9].

In Italy, CS strongly emerges from most of the included media as a mostly unnecessary intervention that is often not clinically needed. The Ministry of Health has entitled its CS information leaflet for women 'Caesarean section: only when is needed' and included statements such as the following

*"In many cases, nowadays, especially in Italy, women give birth with a caesarean section without a real health (medical) reason" (25)*

The Italian record of unnecessary CS is presented as an expression of a failure of the health/maternity care system or, in stronger language, as the '*metaphor of an Italy that doesn't work*' (26). Moreover, CS is represented as a risky intervention, especially where performed without clear medical indications. In presenting CS as a risk, media adopt different styles, ranging from a more neutral/scientific approach to more emotionally-laden language (25,26).



In Italy, the print media and government leaflets pay significant attention to the very large variations in CS rates throughout the country. Higher CS rates are reported as being related to private versus public facilities and in smaller rather than larger units regardless of them belonging to private or public sector, as summarized in the ministerial leaflet:

*“higher percentages of caesarean sections are recorded in private facilities compared to public hospitals and in the structures with a small number of births” (26)*

However, unlike in Cyprus, where there seems to be consistent debate across the various media platforms, in Italy the issues of private versus public care, unit size, or place of birth that are evident in print formats are hardly perceivable in the TV media. No debate or public reflection about these issues seem to emerge from the online episodes and women and families normally appear not to question the practice in use in the birthplace chosen.

In Iceland, women explained that undergoing a CS could be perceived as traumatic if they had been aiming for a vaginal birth, or even if they entered labour fearing that they might need a CS (27). Physical complications and interventions are also discussed in the media. Quality health care and good access to health services are a priority for the country leaders, regardless of where people live (16) and health care system is among the best in the world (44). Negative effect on attachment was also mentioned, if the mother was not able to have the child at her breast immediately it was born, and a father did not get a permission to cut the cord.

The economic impact of high CS rates is frequently part of the media discourses in both Cyprus and Italy. The yearly cost of CS in Cyprus is estimated to be more than 15 million euros (28), with two newspapers using the title “the growing industry of cesarean section” to describe impact of the high CS rates (29); (30); (31). In Italy except from rare neutral images of CS being a source of income for organizations, media often used the term such as ‘waste’ of money in health care (32), suggesting extremely high costs for the whole Italian

economicsystem. This extract from a newspaper article illustrates the average tone of the conversation:

*“where we are wrong, we spend more and we care and cure less, with an evident damage to all” (32).*

## **2. CS AS A NECESSARY, LIFE-SAVING INTERVENTION**

The theme of CS as a necessary, life-saving intervention if the child is in danger during birth was found in material from all three countries. In Cyprus, Birth Forward, which launched the awareness campaign in 2017, highlights that CS can save the life of the fetus:

*“CS is the best [...] when certain pregnancy problems exist, for example placenta previa, treatment for serious diseases, for example preeclampsia” [(29) video 8]*

In Italy, there is also the acknowledgment of CS as an appropriate intervention in certain circumstances, with positive impacts on global health when adopted for real health issues (26). A CS is also illustrated as an inevitable, even life-saving choice in some cases, as perceived in some of the dialogues between professionals and/or users in the included TV series:

*“I had to schedule the caesarean anyway....as I have twins [multiple pregnancy] and I’ll not arrive at 40 weeks” (Maternity Ward-4th series, 2017)*

In Italy this positive side of CS emerged more in birth videos, where the image of CS was only presented as a necessary intervention, and the medical decision for CS was always

presented as the right one, made in the interest of the baby and the mother, relieving her 'suffering', and as a 'courageous choice'. (33).

In Iceland, a mother who was interviewed after an emergency CS stated that CS is seen as a relatively safe operation if performed when needed in safe circumstances. A video shows that planned CS could be as calm as a natural childbirth, when the child is allowed to emerge from the incision without any force.

### **3. ETHICAL DIMENSIONS OF CS**

The issue of unethical behavior by obstetricians in Cyprus was a central theme in much of the included media come from activist campaign (21). The financial cost for vaginal and CS births was estimated at 800-1000 euros and 4000-6000 euros respectively (34). The argument that several doctors lead women to CS for financial incentives was most often made by women, public and journalists. The financial incentives, the convenience of the obstetrician was an example given for unethical behavior:

*"Doctors wish to have a programme, office hours, they wish to go to their conferences, to their holidays".*

In newspaper media, a representative of national OBGYN's Association suggested that a minority of obstetricians exhibited unethical behaviors (24). Another argument made by an obstetrician was that there is high social pressure on physicians to practice 'defensive medicine' (29) for fear of complications that may arise in natural childbirth. The Cyprus Medical Association highlighted that the lack of a national healthcare system enables such practices (20), while women consistently suggested that numbers of vaginal and CS births performed by each individual obstetrician should become public records (24,29,34).

Maternal request without medical indications is another ethical issue, as it is estimated to account for 30-35% of CS in Cyprus [(23) (35) (Video, 1,2 )]. In a Parliament Health Committee session, an obstetrician commented that there are women who ask for CS on specific dates so as to determine their baby's star sign, characterizing the new generation of women as 'immature and demanding' (36), something that spurred criticism from some MPs, women, journalists, and midwives (Video, 6,8). On the other hand, midwives mentioned that cultural factors such as the fear of the unknown and the fear of birth could contribute to the high rates of maternal requests (34).

Women's request for CS in Italy was also investigated in the only scientific paper resulted from the search in Pubmed. Through a survey involving 1000 Italian women, it was noted that 20% of women when asked would have chosen a CS for their birth; this was particularly frequent in nulliparous, younger women (37).

No discussion about the ethics of CS was found in the included Icelandic media. Some documents referred to "celebrities" in other countries, who request CS because they are afraid of harming their body if they deliver vaginally (27).

#### **4. CHANGING LANDSCAPE OF CHILDBIRTH AND MEDICALIZATION**

The changing landscape of reproduction was also proposed in Cyprus as a reason for the increasing CS rates. Specifically, the development of improved techniques and the increasing rate of assisted reproduction resulting in multiple births, as well as the increasing age of women at childbirth constitute potential reasons for the high rates of CS. This position was mainly held by the OBGYN's association and state representatives (20, 38,39).

The medicalization of childbirth in Cyprus was commonly mentioned by midwives and women as central factor contributing the phenomenon of high CS rates (38, 39).

Importantly, 16 media sources noted a lack of birthing options, with midwives emphasizing the absence of a midwifery-led unit [(36) (23) (24) (Videos, 3,4,6)]. In addition, it was reported in 5 sources that the law specifying the number of midwives required for the private clinics' operation is not enforced. The need for the midwifery model of care was consistently emphasized by women [(35) video, 8].

In Italy, besides the images of a country affected by an epidemic of CS, some media sources present an image of a system that is working hard to improve and is increasingly successful in this sense (32), though these discourses also critique the slow pace of change, and suggest key levers to speed it up, such as attention to organizational culture and preventive measures.

*“there are positive results in areas that were traditionally critical [...] to note that the CS rates have progressively lowered since 2009 [...] so the improvement was there: it has been estimated that since 2010 approximately 58,500 women have been saved from a primary CS, 13,500 of which in 2016 [...] the turning point is the organizational change” (32).*

Issues of increased reproductive risk (such as IVF, twins), childbirth medicalization and new models of midwifery care were not present in the Icelandic media. In contrast, physiological childbirth with midwife support for the majority of women was seen as an unproblematic norm. An example is an interview with the head obstetrician at the National University Hospital of Iceland (Landspítali) where the benefits of vaginal birth are emphasized (27).

## **5. INFORMED CHOICES**

Information and choice was a theme found in all three countries. Much of the Cyprus media material indicates that the main reason for the high rates of CS is the lack of informed

choices for childbearing women [(20,36, 38,) (Video 8)]. Choosing between CS and vaginal birth can be difficult as the benefits of either are not always obvious (36). The necessity for women to have scientific and evidence-based information about the benefits of vaginal birth and VBAC and the risks associated with CS for both mothers and babies was stressed by women, health professionals, state representatives and journalists (10,22,23,24 ). On the other hand, lack of awareness and minimal promotion of childbirth rights might lead to disrespectful or traumatic experiences, or even obstetric violence, as some personal accounts indicate (40). Preparation during pregnancy and the benefits of online information about CS were also discussed (22).

In Italy, information to women and families is a fundamental factor in the media (25). Different sources suggest this can be done by different professionals, the main source of this information in most media seems to be the gynaecologist-obstetrician (13). In some sources, women are depicted as active agents in seeking out information, and understanding what a CS entails:

*“1 year ago I needed to do it [CS] my husband was scared, but before [undergoing the CS] I asked for information concerning what I was about to face” (41).*

The Icelandic documents advised that the key to optimizing mode of birth is to give information to the mother during pregnancy regarding mode of birth, along with supporting her to understand and cope with pain is a part of childbirth, and that women can be prepared to deal with the intense feelings of labour and birth (27). The online information available in Iceland during 2017 also mentioned that it is helpful to inform pregnant women about local rates of CS, the indications for, how it is performed, and the route to recovery.

## **Discussion**

The results of the current study suggest that the issue of CS is of interest to the media in all three countries. The results from the three countries show that the media clearly state that if performed appropriately and following an appropriate medical indication, CS is a potentially life-saving procedure, for both mothers and their newborns (42). Nonetheless, the women, health professionals and journalists express their concern that current practices often lead to traumatic birth experiences.

However, there was more material from Cyprus. This could have been because the issues are seen as more urgent in this country and a specific campaign was running that year. Accepting this potential cause of variation, there are still clear patterns between the countries in terms of the media sources that were included. In all cases, the positive and negative impact of CS was present somewhere in the data set. However, rather contrary to our expectation (that countries with high rates would have a media that was less critical of CS) both Cyprus and Italy tended to have more highly critical media than Iceland. This could be because the issue of high levels of CS is not a problem in Iceland, whereas in the other two countries their CS rates are clearly at the very high end, and so the current global concern at the risks of high CS rates is being picked up by a range of media sources.

The analysis of the media material in Cyprus illustrates that the content of such material revolves largely around the factors that contribute to the high CS rates. The different stakeholders involved provide diverse and multiple factors that potentially account for the observed rates. The behaviour of obstetricians and of women were the most often covered reasons for the high CS rates. Cyprus was also the only country where the media reported that the Parliamentary Health Committee was discussing how to decrease the CS rate.

In Italy, some included media reports implied that the Italian government had enacted a lot of changes to improve access of care, equity and women's rights by creating midwifery led care (43).

In Iceland there were only 15 documents found (16,44). All described the advantages and consequences of CS neutrally. The media reported unproblematically that midwives were the primary caregivers during normal pregnancy, childbirth and the postpartum period (44). Media coverage of the life of foreign internationally famous actress and models were the only material that framed CS without medical indication as being associated with positive wellbeing and outcomes. For Icelandic citizens, the included media suggested that the only good reason for a CS was a definite diagnosed medical pathology in mother and/or baby.

Most of the included websites in the three countries provided information on maternal risks and describe health professionals and women's concerns for the CS consequences on mothers and infants' health. These results are inconsistent with Fioretti et al (45) who examined the quality of information about CS on the internet in 2015, and noted that two-thirds of the web pages provided no information about well-known potential long-term maternal risks associated with CS, such as placenta praevia/accreta, and less than half mentioned perinatal risks such as the increased probability of neonatal respiratory problems (46).

The changing risk profiles among increasingly older primiparae, and higher rates of multiple births are often cited as a crucial reason for the rise in cesarean deliveries and are consistent with the concerns of Loudon (47), and Rosenberg and Trevathan, (2018) (42). An increase in maternal request CS is another factor that is perceived by obstetricians to be one of the major factor in driving the CS rate upward (36) and that is consistent with Cyprus result. Health provider-related factors include fear of litigation, convenience and the reduced training and experience in vaginal births (33). However, as the 2018 Lancet Series on Optimizing Rates of CS notes, maternal choice for CS is often confounded by poor health systems, lack of institutional and staff capacity to support spontaneous labour and birth,



meaning that women lose trust in the capacity of the maternity service to provide safe, well supported physiological labour and birth (48).

Maternal anxiety is a common reason for CS because it may lead to arrested or ineffective labor contractions and thus longer labors (49). Elevated levels of depression and anxiety symptoms during pregnancy contribute independently from other biomedical risk factors to adverse obstetric, fetal and neonatal outcome (37). In Cyprus documents became clear that women are anxious during pregnancy and birth but adequate preparation for childbirth and emotional support during labor have been shown to reduce stress in labor and thus reduce the length of labor and increase uterine function (38). Some of the media from all the countries supported the benefits and ethical imperatives to provide information, choices and preparation lessons during pregnancy to empower women to decline the offer of CS if they did not feel this was for the best for them and/or their babies, and to prepare them for a positive spontaneous labour and birth.

In standard hospital care a woman is seen by one group of professionals for prenatal care, another group of professionals for birth (50), and a third group for postpartum and early infant care. This discontinuity is particularly evident in Cyprus. In Iceland the CS rate is the lowest of the three countries. The current evidence on the benefits of continuity of midwife-led care when it is integrated with respectful, effective relationships with local services and obstetricians (48) are the basis of the recent WHO recommendation that women should have access to this model of care (52). The social normalisation of continuity of midwife led care and of physiological birth in Iceland, as was evident in the Icelandic media, probably contributes to the low CS rate there. Continuity of care(r) is also available in a few places in Italy. However, despite the acknowledgment of the importance of midwife-led care for low-risk women (50) and its positive impact on reducing the overall CS rate, midwife-led models are poorly supported in Italy compared to obstetric-led or shared model. In Cyprus it has

been, and still is, a critical goal for immediate and future action, (8) and the Cyprus Ministry of Health will create the first midwifery led unit in a public hospital in 2019.

Many of the issues identified in this review have also been reported in the 2018 Lancet Series on Optimal Caesarean Section rates (48). Maternity service professionals, service providers and funders, childbearing women, families and civil society, and politicians now need to act to ensure that the harms caused to mothers, babies, and health care resources as a result of over use of CS are taken seriously, and rapidly addressed. As the example of Iceland shows, media depiction of childbirth as an essentially physiological phenomenon, that most women can cope with, with the support of skilled and competent midwives, while ensuring effective referral to and responses from obstetricians and other media practitioners where needed, is a powerful context for low CS rates and safe care. Based on many of the media sources that demonstrate what women want and need, doing this within a framework of mutual respect within and between professional groups and childbearing women and their families could provide a sound basis for strong societal support as maternity services make the changes necessary into the future.

## **Conclusion**

The media in Cyprus, Italy and Iceland identify useful information that could be used to support reductions in unnecessary CS. The Cypriot and Italian sources reflect concerns with high rates in those countries. In contrast, the Icelandic media emphasized the mutual understanding between the public and the health professionals that a medical reason is the primary justification for a CS, keeping the CS rate steadily low. The media have a pivotal role in informing and educating their readers/viewers about CS advantages and consequences, and about alternatives to CS. The messages that come out from media should be better used by policy makers, consumers associations and health professionals in order to provide

real opportunities for change. There are ethical imperatives for this to happen as soon as possible in Italy: however, the need for change is now urgent in Cyprus.

TABLE I

FEATURES	ITALY	CYPRUS	ICELAND
<b>NATIONAL HEALTHCARE SYSTEM</b>			
Live births 2017	458.151 (2017)	13.637	4.500
Financing/ Funding source	Public- General taxation	Public – General taxation Private	Public- General taxation
Provision	Mostly public (private sector highly present in some geographic areas)	Mostly Private % of Greek Cypriot prefer private sector	Public
Access to care	To all residents	To all residents	To all residents
<b>MATERNITY CARE SYSTEM</b>			
Primary model(s) offered to women and families for childbirth	1. Obstetric-led care 2. Midwife-led care Low use of public community services	Obstetric-led care A midwifery led unit will be created in 2019	1. Shared care between midwives and obstetricians. 2. Midwives with consults from obstetricians. 3. Midwives
Primary caregivers of antenatal care	Obstetricians/Gynaecologists, Midwives	Obstetricians/Gynaecologists, Midwives	midwives
Primary caregivers of intrapartum care	Midwives, obstetricians, gynaecologists	Obstetricians/Gynaecologists, Midwives	midwives
Primary caregivers of postnatal care	Midwives, obstetricians, gynaecologists, paediatricians	Obstetricians/Gynaecologists, Midwives and paediatricians	Midwives, nurses
Birth place (rates)			
Hospital/OUTs	> 95%	100% 2015-2016	98.09 % (2015) 97.65 % (2016) *
Alongside MLUs	3 public AMUs; no public FMUs	We try to create one	One birthing home (opened 2017) - financed by a contract with government
Freestanding MLUs	10 private maternity homes self-reported on internet	n/a	
Home	0.06 %	0%	1.85 % (2015) 2.10 % (2016) *
Key indicators			
Infant Mortality Rate	2.96 deaths per 1,000 live births	4.6 deaths per 1.000 live births	3,2 per 1000 live births
CS Rate	35%	2015 56,9%- 2016 55,3%	16% (2015) and 17% (2016)
Breastfeeding (at least initiation) Rate	85% (2015)	not available	not available

Table 2. Search terms used in each data source in each country, and the yield of material for each set of terms.

COUNTRY	KEYWORDS	DATABASE	RESULTS	EXCLUSION	MATERIAL INCLUDED
CYPRUS	Καισαρική τομή AND Κύπρος	Google	612.000 documents	Not relevant, personal stories = 608.660 Duplicates -3.300	39 documents and 1 information leaflet
	Καισαρική τομή AND Κύπρος		9,750 videos	Not relevant, personal stories= 7.710 Duplicates=2001	9 Videos
	((caesarean) AND ((media OR television OR magazine OR opinion OR belief OR view))) AND Cyprus AND 2017	Pubmed	0	-	0
ITALY	'Taglio cesareo'	Google	500.000 general results  23.000 videos	personal stories/blog Videos not from TV series/material not related to 2017/ not accessible online/translated into Italian	<b>6 episodes</b> from the Season 4 of the most viewed series in 2017 "Reparto Maternità-Roma"

	‘Giornali più letti in Italia’ [most read newspapers in Italy] in 2017	Google	List of 29 newspapers	Articles Not relevant/not from the first three most read newspapers/not accessible online/not related to the year 2017/ Duplicates=	<b>27 newspapers articles</b> from the 3 most read Italian newspapers (‘Corriere della Sera’, ‘La Repubblica’ and ‘Il Sole 24 Ore’)
		Ministry of Foreign Affairs website	Selection of the 3 most read <b>56 articles</b>		
	((caesarean) AND ((media OR television OR magazine OR opinion OR belief OR view))) AND Italy AND 2017	Pubmed	5	Articles Not relevant/ full text not accessible	<b>1</b>
<b>ICELAND</b>	keisaraskurður	Google	15 web articles 1 video		15 web articles 1 video
	((caesarean) AND ((media OR television OR magazine OR opinion OR belief OR view))) AND Iceland AND 2017	Pubmed	0	-	0