

## Monitoring trends of abortion rates in Albania for the period 2010-2015

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### Abstract

**Aim:** In 2007, the Institute of Public Health established the National Abortion Surveillance System (NASS). Our objectives were to monitor trends of abortion rates and ratios in Albania during 2010-2015 in order to improve the family planning programs (FPP).

**Methods:** The information about abortion was received from the NASS. Abortion ratio (abortions per 1000 live births) and age-specific abortion rates (abortions per 1000 women within a specific age group) were calculated.

**Results:** The abortion ratio declined gradually from 238.8 in 2010 (95%CI=234.3-243.4) to 199.0 in 2015 (95%CI=194.4-203.6;  $P<0.001$ ). In 2015, 24.4% of abortions are reported as induced abortions (40% in 2010) compared to 75.6% reported as spontaneous abortions (60% in 2010). More than two-thirds of abortions were observed among mothers aged 20-34 years old. Regarding place of residence, the total number of abortions was consistently higher in urban areas, but the abortion rate trend reversed during this period with rates declining in urban areas (13.8 in 2010 to 7.5 in 2015) but increasing in rural areas (7.3 in 2010 to 9.6 in 2015).

**Conclusion:** These findings indicate that during 2010-2015, the abortion ratio and rate significantly declined by 16.7% and 23.1% respectively. The report provides useful information to address the most affected age-groups in order to improve FPP. Further research is needed to understand these trends.

**Keywords:** Albania, abortion ratio, abortion surveillance, induced abortions, spontaneous abortion.

## Introduction

Worldwide, about one in five pregnancies ends in abortion, and one in 10 pregnancies ends in unsafe abortion (1). In Europe, 30% of pregnancies end in abortion. A higher proportion of pregnancies end in abortion in Eastern Europe than in the rest of the region (2).

Guttmacher Institute and the World Health Organization (WHO) estimated that worldwide, during the period 2010-2014, there were 35 abortions per 1000 women aged 15-44. This translates to over 56 million abortions per year (3). The report also suggests that induced abortion rate has declined significantly in more developed countries between 1990 and 2014, but not in developing countries (3). Under communism, Albania maintained a strict pro-natalist policy. To encourage the population growth, abortions and all forms of contraception were illegal. However, this does not mean that abortion was not practiced at all; it was allowed on medical grounds approved by a committee, and a large number of pregnancies in the major cities would end with an abortion justified this way. As a result, nearly 50% of the maternal deaths in Albania in 1980 were due to illegal and/or unsafe abortions (4).

In Albania abortion was legalized in 1991 and the law on the interruption of pregnancy which was later passed in parliament in 1995 presented a set of conditions under which abortion was allowed. Abortion on request may be performed up to the end of the 12<sup>th</sup> week of pregnancy for psychological and social problems, and up to 22 weeks for other health and social reasons approved by a commission of three specialists (5).

The Reproductive Health Survey carried out in 2002 found an abortion rate of 73 per 1000 live births, a rate 64% lower than the official data (6). Taking in consideration that Albania has a low fertility rate (1.67 live births per woman) (7) and a high reliance on traditional contraceptive methods which are less effective than modern methods (11%), the lack of data and the fact that the reporting was artificially

lower provided a sufficient rationale for monitoring the situation.

In 2005 a group of specialist from the Institute of Public Health (IPH) conducted a study to analyze the factors leading to abortion underreporting in Albania. This study found that maternity wards were aware of abortion form, but they didn't use it as the main form of abortion reporting and there was no control over abortions performed in the licensed private clinics (8).

Consequently, it was a necessity building up the abortion surveillance system in Albania, in order to improve the quality of gathered statistics and to report with a formal document.

A work group was created for this purpose, with specialists from IPH, Ministry of Health, and Institute of Statistics and supported by United Nations Population Fund (UNFPA) office in Tirana. They organized several meetings with the gynecologist doctors in the maternity wards to create a new reporting document for abortion in order to improve the way of reporting in public and private sector.

On May 2007, Ministry of Health distributed an Order to all the Public Health Directories regarding the way of reporting abortions from public and private health services. The official document for reporting abortions is abortion form, which must be necessarily filled by the doctor who performs abortions. IPH is responsible for processing the data coming from the districts and reporting to the Ministry of Health.

During 2007-2009 a group of specialists from IPH, supported by UNFPA, conducted several trainings in all the districts of Albania and trained the staff that was responsible for abortion reporting in all maternity wards and gynecologic private clinics.

In this framework, the aim of this study was to describe trends of abortion rates and ratios in Albania, over the period 2010-2015 and comparing the frequency of spontaneous and induced abortions during this period.

## Methods

### *Type of study, data collection and procedures*

The data presented on this report are based on abortion surveillance system. For the purpose of trend analysis the information is based on 34 reporting centers that provide data every year through the *abortion form* and is analyzed for the period 2010-2015.

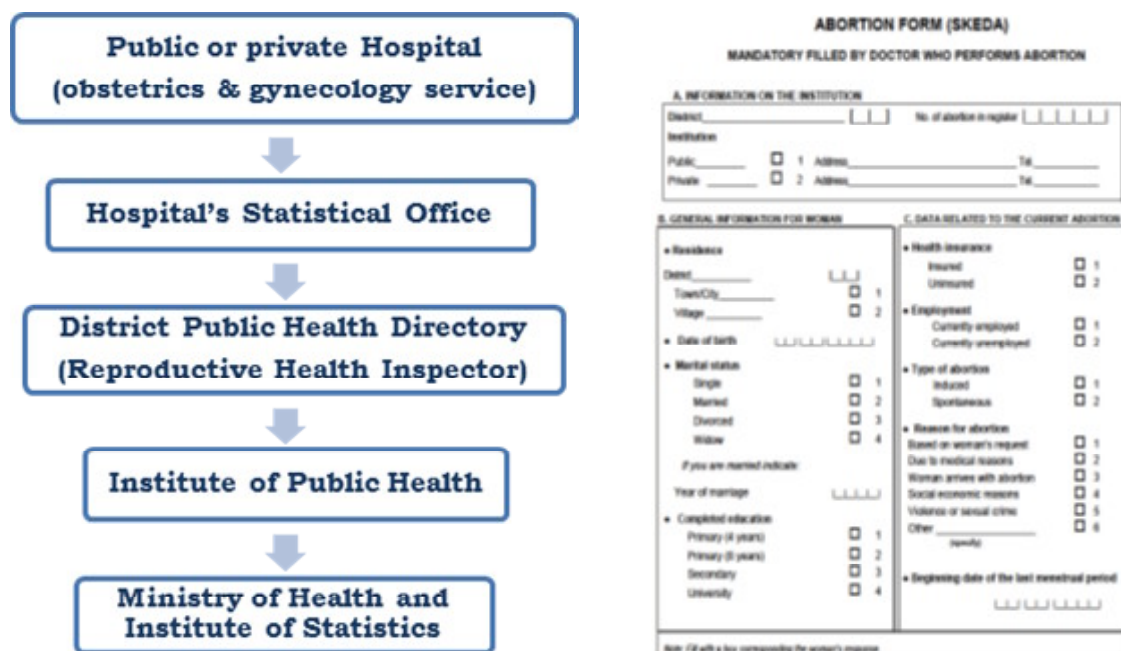
Abortion form contains information about different variables: woman's age, residence, marital status, education level, employment and insurance status, type of abortion, gestational age, pregnancy history, method used and ICD9 code.

Abortion surveillance system is a passive surveillance system, because the abortion forms are

compiled regularly by the doctors in maternity ward. An abortion is defined as the termination of a pregnancy before the fetus is independently capable of sustaining extra uterine life. As generally used by the medical profession, abortion is the expulsion or removal of a fetus weighing less than 500 grams (9).

Every district's public health directory (key person-reproductive health inspector) is required to report completed abortion forms, every three months to the Institute of Public Health -national level. IPH reports annually to MOH about the distribution of abortions by regions/districts and other indicators based on abortion form's fields (Figure 1).

Figure 1. Flow of information



### *Statistical analysis*

Absolute numbers, percentages, and rates were calculated. Three measures of abortion are calculated: the total number of abortions (at national level and by region), the abortion rate (number of abortions per 1000 women aged 15-49 years or other age-specific groups), and the abortion ratio (number of abortions per 1000 live births).

While total abortion rates and by regions are calculated for women of reproductive age (15-49 years) using natality data from Ministry of Health, age-specific rates are estimated using demographic data from National Institute of Statistics.

The statistical analysis was performed using the Statistical Package for Social Sciences (SPSS) statistical software (version 19.0).

## Results

More than 92% of women who had abortions in 2015 are reported as married. The largest proportion of women who had abortions in 2015 (44.8%) reported a low education status ( $\leq 8$  years of formal education), representing a 2.6% increase from 2010. On the other hand approximately 32.6% and 16.4% of women experiencing an abortion in 2015 had completed secondary education level and higher education, respectively. Almost 84% of women who had abortions during the analyzed period are unemployed and uninsured.

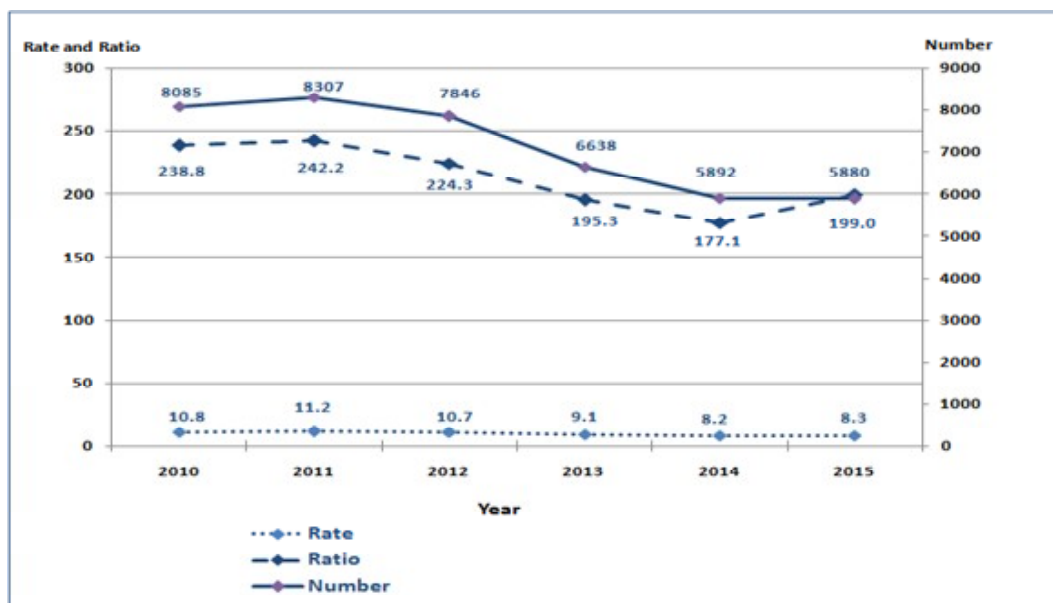
Among resident women who had abortions in 2015, approximately 88% had neither a previous induced or a spontaneous abortion (87.8% and 87.6% respectively). Approximately 11 percent had at least one or more previous induced abortions and 11.3 percent had one or more previous spontaneous abortions.

For the year 2015 there were a total of 5880 abortions

reported in Albania, 2205 less than the number reported in 2010. The total number of completed abortion forms was 4079 representing 69.2% of all abortions reported officially through the surveillance system. The highest number of abortions for this period was noticed in Tirana, but the reporting with abortion form for this district (two maternity hospitals) is around 45%, given that in many occasions the abortion forms have not been completed. As far as for the remaining districts, the percentage of abortion forms reported is higher, and it reaches up to 100% (10).

From 2010 to 2015, the total number of reported abortions decreased by 27.3% (from 8085 to 5880 abortions), the abortion rate decreased by 23.2% from 10.8 abortions per 1000 women aged 15-49 years in 2010 (95% C.I.=10.6-11.3) to 8.3 in 2015 (95% C.I.=8.1-8.5), and the abortion ratio decreased by 16.7% from 238.8 abortions per 1000 live births in 2010 (95% C.I.= 234.3-243.4) to 199.0 in 2015 (95% C.I.= 194.4-203.6) (Figure 2).

**Figure 2. Number, rate, and ratio of abortions performed in Albania by year**



\*Abortion rate -Number of abortions per 1,000 women aged 15-49 years.

†Abortion ratio - Number of abortions per 1,000 live births.

Source: Abortion number from the National Abortion Surveillance System, IPH

Source: Live births from the Ministry of Health

Source: Women aged 15-49 years from INSTAT and Albanian Civil Office

Table 1 displays information about abortion ratio by year of study and different regions (Table 1). The regions with the highest abortion ratios for the year 2015 are Vlorë (334.0), Dibrë (260.6) and

Gjirokastra (247.3) despite the fact that the highest number of abortions is performed in Tirana region (with 2 585 abortions and abortion ratio 237.1).

**Table 1. Abortion ratio\* by region in Albania, for the period 2010-2015**

Region	Years						% Change
	2010	2011	2012	2013	2014	2015	
Berat	258.8	<b>461.1</b>	272.7	<b>358.1</b>	298.2	218.4	<b>-15.6</b>
Dibër	131.6	100.2	119.4	185.2	203.1	260.6	<b>98.0</b>
Durrës	164.8	148.1	179.4	140.7	154.2	164.7	<b>0.0</b>
Elbasan	67.6	70.4	68.6	70.8	86.7	107.1	<b>58.5</b>
Fier	298.7	262.0	279.4	244.6	207.8	207.7	<b>-30.5</b>
Gjirokastrë	263.1	261.4	182	193.5	165.5	247.3	<b>-6.0</b>
Korçë	200.3	176.5	202.3	133.8	148.3	119.3	<b>-40.4</b>
Kukës	76.7	68.5	59.5	76.2	63.5	89.1	<b>16.1</b>
Lezhë	267.2	123.8	152.4	114.6	177.2	179.9	<b>-32.7</b>
Shkodër	90.3	107.0	96.7	114.7	91.3	116.4	<b>28.9</b>
Tiranë	328.5	<b>342.6</b>	<b>315.3</b>	248.6	188.9	237.1	<b>-27.8</b>
Vlorë	<b>400.3</b>	<b>458.1</b>	<b>317.6</b>	296.8	<b>363.2</b>	<b>334.0</b>	<b>-16.6</b>
<b>Total</b>	<b>238.8</b>	<b>242.2</b>	<b>224.3</b>	<b>195.3</b>	<b>177.1</b>	<b>199.0</b>	<b>-16.7</b>

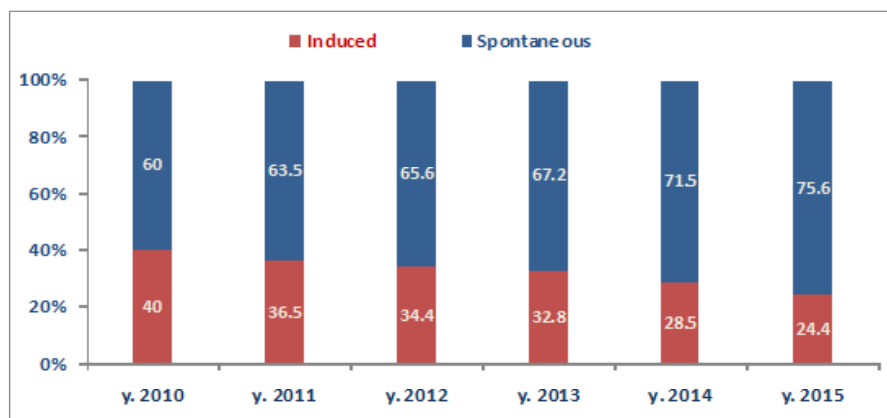
\*Number of abortions per 1,000 live births

Source: Abortion data by 12 regions of Albania, by years from the National Abortion Surveillance System, IPH

During 2011-2015 the proportion of spontaneous abortion increased steadily (by approximately 26% overall) among all reported abortions and the proportion of induced abortion declined (Figure 3).

In 2010 spontaneous abortions accounted for 60% of the total number of abortions and in 2015 they accounted for 75.6%.

**Figure 3. Types of abortions (spontaneous and induced) during the period 2010-2015**

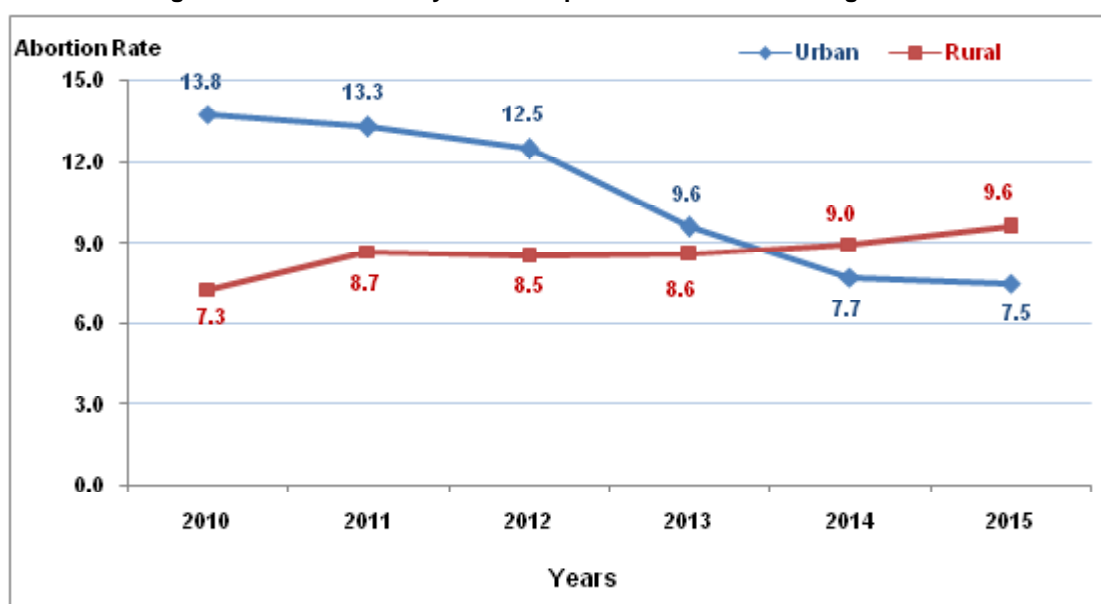


For the year 2015 the age of women experiencing abortions ranged from 14 to 50 years. The average age was 30.2 years  $\pm$  8.9 years. Women aged 25-34 accounted for the majority of abortions (49.1%) and had the highest abortion rates (25.1 and 24.1 abortions per 1000 women aged 25-29 and 30-34 years, respectively). Abortions were less frequent among women in the youngest (15-19 years: 5.4%)

and oldest ( $\geq 45$  years; 1.1%) age groups.

Regarding place of residence, the total number of abortions is consistently higher in urban areas, but the abortion rate trend reversed during this period with rates declining in urban areas (13.8 in 2010 to 7.5 in 2015) but increasing in rural areas (7.3 in 2010 to 9.6 in 2015) (Figure 4).

**Figure 4. Abortion rate by women's place of residence during 2010-2015**



## Discussion

This study reports for the first time about trends of abortion and the distribution of abortions by socio-demographic characteristics of women in Albania during 2010-2015. From 2010 to 2015, the national abortion ratio (per 1000 live births) significantly declined from 238.8 to 199.0 in 2015. Abortion ratio and rate have reached the highest figure in the year 2011 and in the years after we observe a linear decline in abortion number, rate and ratios following the decline trend of live births in Albania.

During 2011-2015 the proportion of spontaneous abortion increased significantly among all reported abortions and the proportion of induced abortion declined. One of the reasons could be the

overcoming of the official payment for induced abortions (5000 Albanian Lek) in maternity wards, because spontaneous abortions are considered an emergency situation and don't require any payment by the women. In addition, based on the conversations with different obstetricians, we were often told that in many cases the doctors report an induced abortion as a spontaneous one in order to avoid this payment, and enable women to pay less under hand. Classifying an induced abortion as a spontaneous one also avoids delicate ethical issues regarding abortion and the need to wait for several weeks before performing this intervention because in emergency situations the medical staff does not need to consider and/or report about these aspects. For this reason we can conclude that induced

abortion rates are under reported and further investigations are needed to highlight the putative factors. Our data suggested that the absolute number of abortions is consistently higher among urban women but the abortion rate is increasing among rural women and finally the trend reversed during 2010-2015. An explanation about this finding could be the fact that women living in urban areas have a higher level of awareness about abortion and are more likely to use contraception than those living in rural areas. However, further research is needed to understand the factors that are affecting these trends.

Overall, 8.2% of all women aged 15-49 years in Albania have an unmet need for family planning: 0.1% for spacing births and 8.1% for limiting births (11). Low access to modern contraceptive methods among certain groups, such as women living in rural areas or adolescents, is due to the lack of family planning services in some rural areas and/or difficulty to access them but also due to the prevailing patriarchal mentality in most of the country.

During the period 2010-2015, almost half of all abortions are observed between women with a low level of education, while women with higher education were responsible for around 16% of abortions. The fact that women with higher education are less likely than others to have an abortion supports the assumption that higher education provides more exposure to information about contraceptives and increases motivation and willingness to avoid unintended pregnancies.

Almost 84% of women who had abortions (compared to the total number of abortions) were unemployed and uninsured, thus suggesting that there is a link between employment and insurance status of women experiencing abortion.

Abortion rate in Albania becomes a more meaningful figure when we compare it to that of other European countries. From the latest United Nations' abortion statistics we can say that abortion rate in

Albania (10.7 for the year 2012 and 8.3 for the year 2015) is below the rate of Eastern Europe countries: e.g. Bulgaria (year 2012 – 21.5), Romania (year 2012 – 18.6), and some countries of the Northern Europe: e.g. Sweden (year 2011– 20.8) and U.K (year 2012 – 16.6). Meanwhile the abortion rates in Albania are similar to those in Southern Europe countries: e.g. Italy (year 2012 – 9.4), Serbia (year 2011 – 10.4) and Montenegro (year 2011 – 6.4) (12).

### ***Study limitations***

This study has several limitations. Abortion continues to be underreported (only about 70% of the total number is reported with abortion form) and the information is not complete for private sector (missing information from 2013-2015). In addition, abortions seem to be consistently misclassified for various reasons generating, as a result, a distorted picture of the situation.

Nevertheless, this report is the first complete report in measuring the abortion rates and ratios in Albania and will provide the stakeholders with the necessary indicators regarding the incidence of abortion by age-specific groups.

### **Conclusion**

Based on the findings of this survey, we consider that many aspects of the abortion surveillance system in Albania need to be improved. In addition, the report highlights the importance of continued abortion surveillance system in assessing the trends of abortion and also comparing the abortion incidence in different age-groups. There is need to improve the quality of reporting by training the staff responsible for abortion system in the District Public Health Directories (reproductive health inspectors) on data collection, data entry, reporting and monitoring process; and to focus on programs that reduce unmet need for modern contraception, as an effective way to prevent unwanted pregnancies and abortions, mainly for specific groups (women with lower education status and women living in rural areas).

**Conflicts of interest:** None declared.

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