

Communication of Standards Regarding the Polizu Maternity Hospital Birth Rate/Romania (2011-2013)

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ABSTRACT

The survey centers on the birth rate and its global implications of the nation's welfare indicating Births and cesarean sections table during a three year period 2011-2013 at Polizu Maternity Hospital.

The survey is structured as follows:

1. A short presentation of the issue
2. A short historical presentation
3. A general approach of birth rate and
4. Statistics and parameters

The message of the survey is a contribution to the birth rate increase, a vital issue both in Romania and all over the world.

Introduction

Birth rate is the main welfare index of a nation; when obstetricians bring babies into the world or save babies, they do it with abnegation. Thus obstetricians are closer to God's creation.

The Gh. A. Polizu Maternity Hospital is situated near The North Railway Station and it includes a wellknown Maternity Hospital. Dr. Gh. A. Polizu (1819-1886) was a famous Romanian physician, the first descriptive anatomy professor, an honorable member of the Romanian Academy.

„The Gheorghe A. Polizu” Maternity Hospital was built between 1924-1926 by Cristofi Cerchez, who built the old wing and then by Ion Mircea Enescu, who built the new wing.

The building is not certified in any official document.

In 1953 the architect C. Cerchez mentioned that between 1925-1927 on he had built a hospital for Invalids, Orphans and Widows in Polizu street.

The new hospital had a new section for a monumental Maternity Hospital with a balcony, wooden pillars and specific elements used by the architect C. Cerchez. The famous surgeon

Traian Nasta who led the surgery up to 1943 as well as the musicologist Dorin Dumitrescu contributed to the project.

The building was converted into a hospital for lack of space.

A chemist's shop, staff offices and the septic insulator were to be found in the hospital. In „Gheorghe A. Polizu” Maternity Hospital there is an operating room on the first floor, several operating theatres where women gave birth on the second floor and obstetrics gynaecology wards on the third floor. From 1945 to 1949 the The „Gheorghe A. Polizu” Maternity Hospital's manager was Professor dr.Eufrosina Pache Protopopescu. The Maternity Hospital's following managers were the obstetycian Gheorghe Dumitrescu and then Prof. Dr. Eugen Aburel a member of the French Academy.

Starting with 1957 the next manager was Prof. Dr. Dan Alessandrescu, who added two more departments immunology, genetics, oncology, the treatment of malformed genitals. In 1959 the first department of anaesthesia-reanimation was established, while in 1961 a new born section was established. Dan Alessandrescu memory lives on. There is a statue of Dan Alessandrescu's at the Maternity Hospital's entrance.

Between 1968-1969 the first oncological-genital operations were performed.

Other famous managers were Prof. Dr. N. Coja, Prof. Dr. Gabriel Bănceanu și Prof. Dr. Alfred Rusescu while in 1990 the Maternity Hospital'was renamed, the Protection of Mother and Child Institute Starting with 1995 The „Gheorghe A. Polizu”Maternity Hospital is certified as "The Child's Friend" by the Health World Organisation,(HWO) and by the Emergency International Children's Fund(UNICEF). Nowadays The Polizu Maternity Hospital's staffs are dedicated and industrious, highly dedicated to their profession such as Dr. N. Brănescu, Dr. Adriana Ciuvică and many others.

Starting with 2006 The Polizu Maternity Hospital has a chapel been there are the relics of Saint John the Russian celebrated on 27 May.

A general approach to birth rate

Birth is a complex biological and social event where the obstetrician plays a very important part. Birth rate is a word of French origin natalité and is expressed by various indicators indexes.

General birth rate "is the total number of births per 1,000 of a population each year. The rate of births in a population is calculated in several ways: live births from a universal registration system for births, deaths, and marriages; population counts from a census and estimation through specialised demographic techniques".

Birth rate is a dynamics and active balance sheet with a wide variability in time and space.

Birth rate may be both influenced and controlled. This per cent has the following form:

$$TFR = \frac{N}{P} \times 1000$$

TFR=Total fertility rate

N=the number of live births per 1,000 persons/year

P= the actual population in a given period of time

Birth rate depends on the behaviour and interests of the group. One could speak of a potential birth rate (when birth control is not considered and a real birth rate.

Birth rate is a dynamic and complex index which fluctuated with the passage of time decrease from 60% to 10% nowadays.

As a result of the changes that occurred after the Second World War. Romania was in an intermediary stage of demographic transition which led to a few decades disparity compared to other West European countries.

According to the National Statistics Institute (NSI) one could speak about a birth rate record in the last 3 decades, in 1987 the birth rate of Romania was 16,7 to a 1000 inhabitants.

After 1989 the birth rate was slightly increased during 2004-2009.

Nowadays the birth rate in Romania is one of the lowest in Europe representing half of the value recorded in 1987. According to the National Institute of Statistics (NSI) in November 2013 the number of birth decreased with more than 5,400 babies compared to the birth rate percentage of 10,5‰ in 2012.

During 1990-2011 more male babies than female babies were born. In 1990 in the maternity hospitals of Romania 161.031 male babies and 7.300 less female babies were born. During 2012, 100.985 male babies and 95.257 female babies were born.

Among the main factors which lead to birth rate decreases in Romania there are:

- Women's emancipation as nowadays women takes part in social life;
- A longer period of study as well as a higher educational level;
- Greater social mobility;
- Modern contraceptive means;
- Higher costs of raising children and low allocation;
- Social-economic relationships resulting in precarious financing of mothers.

Population growth is also determined by the evolution of the natural balance which could be either positive when there is a high population growth and negative when population decreases or tends to 0.

The natural reproduction, growth rate of the population RGR is given by the difference between the birth rate and mortality expressed by absolute or relative values from 0% la 1 ‰ within a certain range.

RGR has the following formula:

$$RGR = \text{Birth Rate} - M (\text{‰})$$

BR= Birth Rate

M=mortality

Birth Rate value is directly influenced by age and sex group structure of population as sometimes crude birth rate does not always indicate the real value.

That is why other additional parameters have been calculated. The parameters are the following:

Standardized Birth Rate
Population fertility

Fertility Rate (TFR), or the fertility rate, period total fertility rate or (PTFR) or the total period fertility rate (TPFR) of a population is the average number of children that would be born to a woman over her lifetime if:

Population fertility is calculated related to the number of live born babies and the women aged between 15-49. Replacement fertility (R) the average number of female babies to which a woman has given birth. Replacement fertility ® is the average number of female babies to whom a woman has given birth throughout her childbearing years.

The interpretations of the above parameters as well as the fecundity parameter emphasize the movement of population.

The criteria according to which the future mothers select the maternity hospital are:

80 % of the pregnant women were consulted prior to giving birth during the first pregnancy term.

Birth rate survey of the last three year period 2011-2013 at Polizu Maternity Hospital

The Polizu Maternity Hospital Bucharest the activity is shown below:

Table 1: Births and cesarean sections 1989-2013

| YEAR | BIRTHS | CESARAN SECTIONS | PROCENT |
|-------------|---------------|-------------------------|----------------|
| 2013 | 3094 | 1388 | 44,86 |
| 2012 | 3100 | 1369 | 44,16 |
| 2011 | 3417 | 1741 | 50,95 |
| 2010 | 3133 | 1433 | 45,74 |
| 2009 | 3770 | 1538 | 40,80 |
| 2008 | 3540 | 1315 | 37,15 |
| 2007 | 3704 | 1172 | 31,64 |
| 2006 | 3751 | 1035 | 27,59 |
| 2005 | 4074 | 1063 | 26,09 |
| 2004 | 3567 | 939 | 26,32 |
| 2003 | 3379 | 729 | 21,57 |
| 2002 | 3009 | 700 | 23,26 |
| 2001 | 3465 | 713 | 20,58 |
| 2000 | 3207 | 653 | 20,36 |
| 1999 | 3432 | 646 | 18,82 |
| 1998 | 3321 | 546 | 16,44 |
| 1997 | 2755 | | 0,00 |
| 1996 | 3633 | 497 | 13,68 |
| 1995 | 3208 | 448 | 13,97 |
| 1994 | 3197 | 412 | 12,89 |
| 1993 | 2722 | 326 | 11,98 |
| 1992 | 2922 | 260 | 8,90 |
| 1991 | 3740 | 290 | 7,75 |
| 1990 | 4305 | 328 | 7,62 |
| 1989 | 5190 | 239 | 4,61 |

Table 2: Births

| Year | Total births | Cesareans sections | Percent |
|-------------|---------------------|---------------------------|----------------|
| 2012 | 3100 | 1369 | 44,16 |
| 2011 | 3417 | 1741 | 50,95 |

| | | | |
|------|------|------|-------|
| 2010 | 3133 | 1433 | 45,74 |
| 2009 | 3770 | 1538 | 40,80 |
| 2008 | 3540 | 1315 | 37,15 |
| 2007 | 3704 | 1172 | 31,64 |

Table 3: New births

| Year | Total Entries | Total Externals | Premature births | Girls | Boys | Dead |
|------|---------------|-----------------|------------------|-------|------|------|
| 2012 | 3326 | 3345 | 314 | 1564 | 1781 | 16 |
| 2011 | 3694 | 3703 | 384 | 1773 | 1930 | 39 |
| 2010 | 3336 | 3319 | 316 | 1599 | 1720 | 36 |
| 2009 | 4006 | 3972 | 292 | 1946 | 2026 | 46 |
| 2008 | 3716 | 3717 | 217 | 1725 | 1992 | 43 |
| 2007 | 3855 | 3847 | 320 | | | 56 |

Table 4: Year 2013

| | |
|-------------------|------|
| Total births | 3094 |
| Cesarean sections | 1388 |
| Forceps | 20 |
| Pelvic | 29 |
| Internal version | 1 |
| Twins | 70 |
| Triplets | 3 |

An obstetrician takes part in 250 births yearly at Polizu. Over 70% of the births are spontaneous and not by means of cesarean section.

Table number 5, refers to birth rate, mortality rate and life expectancy in from 1983 to in 2012 in Romania according to I.N.S.

Table 5: Diagram 4 (Source: INS, Inquiry Statistics of birth and mortality)

| Years | Birth Rate | Mortality Rate | Hope of life at birth |
|-------|------------|----------------|-----------------------|
| 1983 | 14.3 | 10.4 | : |
| 1984 | 15.5 | 10.3 | : |
| 1985 | 15.8 | 10.9 | : |
| 1986 | 16.5 | 10.6 | : |
| 1987 | 16.7 | 11.1 | : |
| 1988 | 16.5 | 11.0 | : |

| | | | |
|------|------|------|-------|
| 1989 | 16.0 | 10.7 | : |
| 1990 | 13.6 | 10.6 | 69.56 |
| 1991 | 11.9 | 10.9 | 69.76 |
| 1992 | 11.4 | 11.6 | 69.78 |
| 1993 | 11.0 | 11.6 | 69.52 |
| 1994 | 10.9 | 11.7 | 69.48 |
| 1995 | 10.4 | 12.0 | 69.40 |
| 1996 | 10.2 | 12.7 | 69.05 |
| 1997 | 10.5 | 12.4 | 68.95 |
| 1998 | 10.5 | 12.0 | 69.24 |
| 1999 | 10.4 | 11.8 | 69.74 |
| 2000 | 10.5 | 11.4 | 70.53 |
| 2001 | 9.8 | 11.6 | 71.19 |
| 2002 | 9.7 | 12.4 | 71.18 |
| 2003 | 9.8 | 12.3 | 71.01 |
| 2004 | 10.0 | 11.9 | 71.32 |
| 2005 | 10.2 | 12.1 | 71.76 |
| 2006 | 10.2 | 12.0 | 72.22 |
| 2007 | 10.0 | 11.7 | 72.61 |
| 2008 | 10.3 | 11.8 | 73.03 |
| 2009 | 10.4 | 12.0 | 73.33 |
| 2010 | 9.9 | 12.1 | 73.47 |
| 2011 | 9.2 | 11.8 | 73.77 |
| 2012 | 9.4 | 12.0 | 74.26 |

Conclusions

The precarious socio-economic conditions are alarming and noxious. The number of births has annually decreased as shown in the statistics of the Polizu Maternity Hospital.

The decrease of The precarious socio-economic reality of Romania led to the decrease of the birth rate. The decrease of Romania's population Romania's population in December 2013 represents 9885 less persons, when 14.000 children were born while 24.000 persons died (according to INS) .The number of babies born out of wedlock got to 15-27 % .

In reference to table 5 it has to be said that birth rate and mortality rate are going to remain invariable, while mortality rate will be slightly higher. In 2015 the mortality value will be 75,3% (according to the increase shown in the graph).In reference to table to table 1 it has to be said that the number of births fluctuates around the constant value of 2500 while the number of caesarean sections seems to be constant about 1400. In order to extrapolate these given graphs it is practically impossible to know the free variation which birth and deaths determine (view diagram 4).

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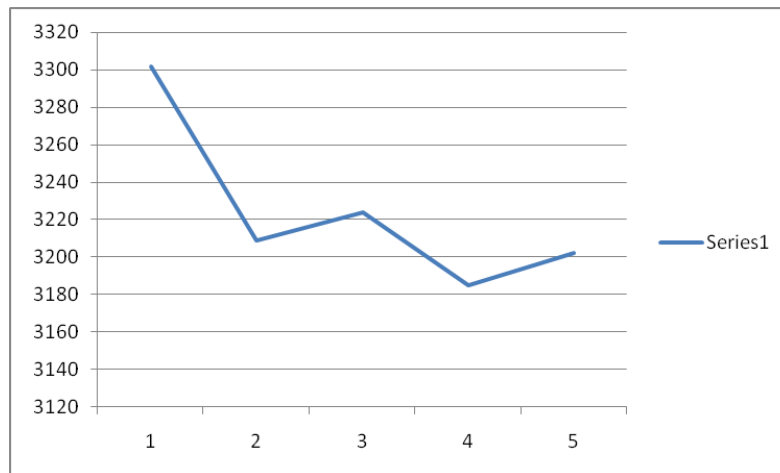


Diagram 1

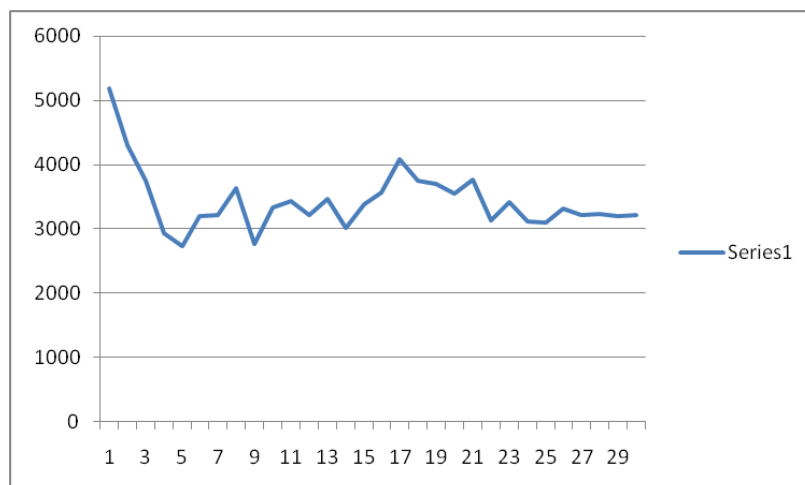


Diagram 2

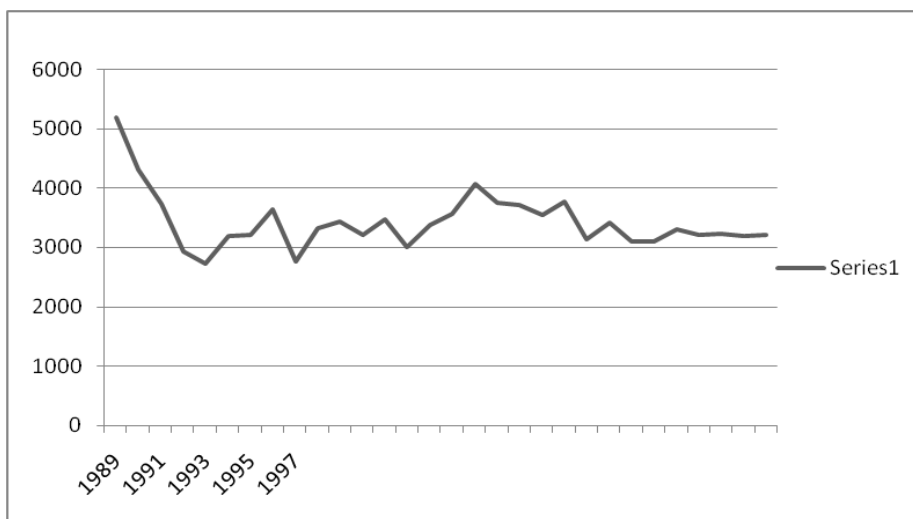


Diagram 3

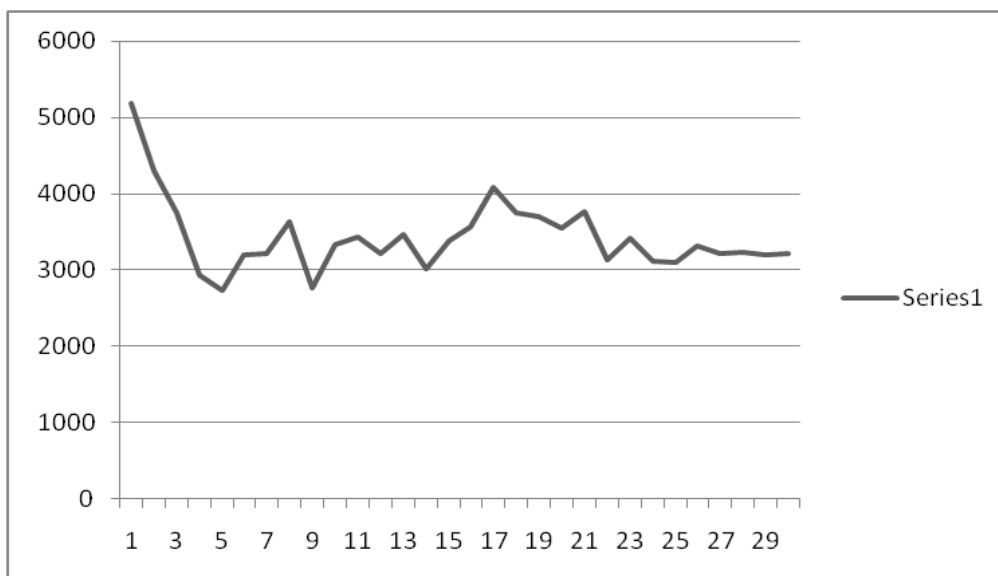


Diagram 4