A Multivariate Analysis of Cumulative Fertility Using Secondary Data

Abu Jafar Mohammad Sufian, PhD.
Professor
Department of Management and Marketing
College of Business Administration
University of Bahrain (Sakhir Campus)
P.O. Box 32038
Kingdom of Bahrain.

Abstract

This paper attempts to identify the socioeconomic determinants of cumulative fertility – number of children ever born to women at the end of their reproductive period - by analyzing national level secondary data, using a multivariate technique of analysis. The data on the number of children and seven explanatory variables have been taken from the following sources: World Population Data Sheet, 2011 (Population Reference Bureau, 2011), World Fertility Data, 2012 (United Nations Department of Economic and Social Affairs, Population Division 2013), and Adult Literacy Rate, Female by Country (United Nations Educational, Scientific, and Cultural Organization (UNESCO), Institute for Statistics, 2003-2013).

The multiple regression technique has been used to analyze the data. An investigation of the variance inflation factors revealed that there is no threat of multicollinearity. The analysis shows that the largest contribution for lowering the cumulative fertility is the gross national income per capita, followed by the percentage of currently married or in-union women using modern contraceptive methods, female literacy rate, and poverty, in that order.

Policy implications have been discussed.

Key words: Children ever born; multicollinearity, variance inflation factors.

Introduction

In order to gauge the true pace of demographic change it is important to study the determinants of all of its components. In this paper an attempt has been made to identify the socioeconomic determinants of the principal engine of this change – fertility (Goodkind, 2011). The list of reasons for undertaking a study on the determinants of fertility is long. Many countries, particularly in the developing world, have been plagued with the rapid population growth, while some countries are facing the problem of negative growth as well. We will be mainly concerned with the first of the two growth scenarios. Although a drop in the fertility level has been evidenced from the World Fertility Survey and Contraceptive Prevalence Surveys, women in many countries were found to have large families with considerable fertility (Population Information Program, 1985).

The recent years have witnessed a widespread interest among researchers in the relationships between socioeconomic factors and fertility. The fact that the family planning programs exert direct negative influence on fertility (Poston and Baochang, 1987; Caldwell et al., 2002), does not negate the contention that socioeconomic development may contribute significantly in fostering fertility declines. It is known that significant differences in socioeconomic development exist among countries, and it is possible that countries with higher levels of socioeconomic development have demonstrated greater declines in fertility.

The fertility behaviour in a given society can be construed as the results of the interplay of socioeconomic, cultural, and institutional dimensions and their interrelations in that society. The study of these dimensions derives its importance from the fact that they provide clues necessary for social scientists to formulate policies. It is believed that the socioeconomic factors do influence fertility independently, as well as, interactively. This paper aims at identifying these factors and their relative contributions towards the variations in fertility level across a number of countries by analyzing national level secondary data using a multivariate technique of analysis.

Data and Methods

Variables and Their Measures

Data have been collected from the following secondary sources: World Population Data Sheet, 2011 (Population Reference Bureau, 2011); World Fertility Data 2012 (United Nations, Department of Economic and Social Affairs, Population Division, 2013); and Adult Literacy Rate, Female by Country (United Nations Educational, Scientific and Cultural Organization (UNESCO), Institute for Statistics 2003-2013). The dependent variable (CEB:Y) is the number of children ever born to a woman in a particular age group (usually 45-49 which is viewed as the end of the reproductive period of women) which is a cumulative measure of fertility, and is the mean number of children born alive to women in that age group.

The explanatory variables are: URBAN (X_1): percentage of population living in urban areas; CMW (X_2): percentage of currently married or in-union women of reproductive age who are currently using modern methods of contraception; GNI (X_3): gross national income converted to 'International' dollars using a purchasing power parity conversion factor where the 'International' dollars indicate the amount of goods and services one could buy in the United States with a given amount of money; DENSITY (X_4): population per square kilometer; FLR (X_5): female literacy rate defined as the percentage of females aged 15 and above who can, with understanding, read and write a short, simple statement on their everyday life; DEPPOP (X_6); percentage of the dependent population defined as the sum of the percentages of population aged less than 15 years and more than 65 years; and POVERTY (X_7): percentage of population living on less than $2 per day. Details of these variables and their measures can be found in the sources mentioned above. This paper analyzed data on the above eight variables which were available only for 87 countries. The list of these countries along with the values of these eight variables are given in the appendix.

The choice of the explanatory variables is guided by theoretical reasoning, as well as, availability of data. A number of researches have demonstrated the effects of socioeconomic factors on fertility. For example, many studies have shown an inverse relationship between education and fertility (Casteline et al., 1984; Diamond et al., 1997; Prada and Ojeda, 1986; Krishnan, 1988; Shapiro and Tambashe, 1994; Kravdal, 2002). Rural women have been found to have higher fertility rates than their urban counterparts (Alam and Casterline, 1984; Prada and Ojeda, 1986; Rubin-Kurtzman, 1987).

The relationship between income and fertility has been shown to be negative (Jiang, 1986; Rubin-Kurtzman, 1987). Also, population density has been found to affect income positively. For example, in China, people living in areas with the highest density (the coastal region) have much higher income than those living in the western region which is the least densely populated area, probably because a densely populated area has a large number of potential consumers that enable the businessmen to run their businesses with less investment (Johnson, 2001). As such, we expect a negative relationship between density and fertility. Also, a higher population density may engender a feeling of crowded dwellings which has been found to be one of the important causes of tuberculosis (Gist and Faba, 1974, p. 608), and measles (Aaby, et al., 1984) that may lead women to be more likely to have fewer children. The level of poverty may exert a positive influence on fertility. People at the lowest rung of economic ladder with few sources of earnings might be motivated to have more children as a supply of free labour to parents for more earnings. As a result, the poverty level may positively influence fertility.

Finally, in a society with a high dependent population, a family is more likely to use a given income on a larger number of members than in a society with a low dependent population, thus causing economic strains on low income families that may eventually lead to poverty which is positively related to fertility. Based on the above arguments we hypothesize that URBAN, CMW, GNI, DENSITY, and FLR will have negative relationships with CEB, while DEPPOP, and POVERTY will have positive relationships with CEB.

Analytical Technique

The multiple regression technique has been used to analyze the data. The model to be fitted is:

$$Y = \beta_0 + \sum_{i=1}^{7} \beta_i X_i + U$$

(where β_0 is the intercept and β_is are the regression coefficients) connecting the number of children ever born, and the seven explanatory variables X_1, X_2, ……..X_7. To detect whether multicollinearity is present in the data or not, simple bivariate correlations, and variance inflation factors (VIF) have been examined.

Analysis

Table 1 presents the means and standard deviations of the dependent and the explanatory variables. As can be seen from the table, the average number of children per woman is 4.63, varying from lows of 1.70 children in Ukraine and 1.79 children in Belarus to highs of 7.83 children in Niger and 7.23 children in Mali.

Table 1. Means and Standard Deviations of the Number of Children Ever Born and the Seven Explanatory Variables

Variable	Mean	Standard Deviation
CEB: Y	4.63	1.72
URB: X_1	48.33	20.96
CMW: X_2	38.72	22.61
GN1: X_3	5692.87	5364.94
DENSITY: X_4	113.76	173.50
FLR: X_5	73.59	25.09
DEP: X_6	38.76	6.91
POVERTY: X_7	40.45	31.16

The results of fitting the OLS regression model are presented in table 2. The facts that the overall regression model is highly significant (F=51.91), and that the value of R^2 is very high (R^2 =0.82) indicate that the variables chosen to explain the variability in the number of children ever born are valid explanatory variables (Chatterjee and Price, 1977). At the same time we also note that a large value of R^2 is not a guarantee of a good fit (Anscombe, 1973), nor that the model assumptions have not been violated (Chatterjee and Price, 1077). However, the residual analysis did not show any evidence of model misspecification nor of any serious violations of model assumptions.

Table 2. Unstandardized and Standardized Coefficients of Regression of the Number of Children Ever Born on the Seven Explanatory Variables

Variable	Unstandardized Coefficients	T Value	Standardized Coefficients
INTERCEPT	-0.274	-0.247	
URBAN: X_1	0.006	0.952	0.071
CMW: X_2	-0.013	-2.59	-0.170
GNI: X_3	-7.422E-5	-3.004	-0.231
DENSITY: X_4	0.001	2.102	0.108
FLR : X_5	-0.007	-1.275	-0.099
DEPPOP: X_6	0.157	6.889	0.628
POVERTY: X_7	-0.004	-0.672	-0.069
N= 87	R^2 = 0.82	F = 51.91	

Once the diagnosis of the model shows that it has been properly specified, an investigation of whether a high interdependence among the explanatory variables – multicollinearity - is present or not, is in order. Multicollinearity exhibits a host of undesirable characteristics in the results of the regression analysis, such as, unexpected signs of the regression coefficients, overestimation of the true impact of the individual predictors, among others. An examination of the bivariate correlations (correlation matrix not shown here) shows that none of the correlations is too high to imply that the problems inherent in collinear systems are large enough to plague the results severely.

To judge the precision of an estimated regression coefficient, say, b_i, it is important to consider its variance which is the product of the variance σ^2 of the residual term in the regression model, and a quantity, called variance inflation factor (VIF), given by VIF = $\frac{1}{1-R_i^2}$, where R_i^2 is the square of the multiple correlation coefficient obtained from the regression of the ith explanatory variable on all other explanatory variables. The VIF for b_i becomes larger and larger as R_i^2 approaches 1, indicating the presence of a linear relationship among the explanatory variables. Usually, a VIF in excess of 5 is considered as an indication that multicollinearity may cause problems in estimating the parameters.

If there are p explanatory variables, the expected squared distance of the OLS estimates from their true values is given by (Chatterjee and Price, 1977)

$$L^2 = \sigma^2 \sum_{i=1}^{p} VIF_i$$

A small value of the distance implies that the OLS estimates are close to their true values. In case the explanatory variables are orthogonal, each VIF will be equal to 1, and $L^2 = p\sigma^2$. Hence a small value of the ratio

$$Q = \frac{\sigma^2 \sum VIF_i}{p\sigma^2} = \frac{\sum VIF_i}{p}$$

indicates that multicollinearity is not a problem. Table 3 shows the variance inflation factors for the OLS regression coefficients.

Table 3. Variance Inflation Factors (VIF)

X_1	X_2	X_3	X_4	X_5	X_6	X_7
2.482	1.904	2.612	1.169	2.672	3.681	4.727

As can be seen from table 3, all VIFs, as well as, the value of Q (= $\frac{\sum VIF_i}{p} = \frac{19.247}{7} = 2.75$) are less than 5. These values are small enough to warrant that the multicollinearity is not a problem.

Hence, the OLS estimates may well be used to describe the relation between Y and the explanatory variables. The model is, therefore,

$Y = -0.274 + 0.006\ X_1 - 0.013\ X_2 - 0.00007422\ X_3 + 0.001\ X_4 - 0.007\ X_5 + 0.157\ X_6 - 0.004\ X_7$

Or, CEB = -0.274 +0.006 URBAN – 0.013 CMW – 0.00007422 GNI + 0.001 DENSITY - 0.007 FLR + 0.157 DEPPOP- 0.004 POVERTY

The coefficients show that a one percent increase in the currently married or in-union women of reproductive age who are currently using modern methods of contraception, a one percent increase in females aged 15 and above who can, with understanding, read and write a short, simple statement on their everyday life, a one percent increase in people living below $2 a day, and a one unit increase in the gross national income decrease the number of children ever born by 0.013, 0.007, 0.004, and 0.00007422 respectively, while a one unit increase in the percentage of dependent variable, one percent increase in urban population, and a one unit increase in the population density increase the number of children ever born by 0.157, 0.006, and 0.001 respectively.

Since the different variables are measured in different units, a comparison of the magnitude of the above coefficients (unstandardized) does not serve the purpose of evaluating the relative importance of the explanatory variables in determining fertility. The standardized coefficients which are unit-free are used for this purpose. An examination of these standardized coefficients (table 2) shows that the percentage of dependent population has the largest positive impact on the number of children ever born - the higher the percentage of dependent population, as measured in standard deviation units, the higher the number of children ever born (0.628), followed by population density (0.108), and percentage of urban population (0.071).

The largest contribution for lowering fertility is the gross national income per capita (-0.231), followed by the percentage of currently married or in-union women using modern contraceptive methods (-0.170), female literacy rate (-0.099), and poverty (-0.069), in that order. Table 2 also shows that two of the seven explanatory variables – DENSITY, and POVERTY – have coefficients with signs contrary to our expectations. The reason as to why density has a positive relationship with the number of children ever born is unclear. Similarly, it is difficult to interpret the negative relationship of poverty with the number of children ever born. Further research is needed to see whether the use of a larger data set and /or a greater number of explanatory variables may overturn the unexpected directions of these relationships.

Summary and Conclusions

The volley of problems associated with the rapid population growth, as well as, with the negative growth of population, definitely warrants a study of the determinants of the components of demographic change. An attempt has been made in this paper to identify the socioeconomic determinants of the principal component of this change – fertility - defined as the average number of children ever born to women at the end of their reproductive period which is a measure of cumulative fertility. The multiple regression technique has been used to analyze this measure of fertility with explanatory variables URBAN (X_1): percentage of population living in urban areas; CMW (X_2): percentage of currently married or in-union women of reproductive age who are currently using modern methods of contraception; GNI (X_3): gross national income; DENSITY (X_4): population per square kilometer; FLR (X_5): female literacy rate; DEPPOP (X_6); percentage of dependent population; and POVERTY (X_7): percentage of population living on less than $2 per day. The analysis is based on national level secondary data of 87 countries for which data on the dependent, as well as, all the explanatory variables are available. In order to detect whether mulitcollinearity is present or not the variance inflation factors have been computed. All VIFs, as well as, $Q = \frac{\sum VIF_i}{p}$ where p is the number of explanatory variables, are less than 5 that indicate that multicollinearity that may render the regression coefficients unstable, is not a threat. As such, the final analysis is based on the OLS estimates.

The analysis shows that the gross national income per capita has the largest contribution in lowering fertility, followed by the percentage of currently married or in-union women using modern contraceptive methods, and female literacy rate, in that order. It is to be noted that the main limitation of this study is that the data on children ever born are available for different countries for different years. While for some countries the data are available for as recent a year as 2010, for other countries data are available for as far a year as 2001, with most of the data, however, being recorded for years between 2006 and 2010. It is possible that this limitation may have caused the two unexpected signs of the regression coefficients to occur. The other limitation of this study is that female literacy rates could also not be collected for the same year because of the unavailability of the relevant data. However, almost all rates are for the year 2008, although a very few of the rates pertain to the years 2005-2007.

The study has a number of policy implications. The gross national income contributes most to the reduction in fertility. It is rational to think that a larger proportion of people are economically well-off in a country that has a strong gross national income with an egalitarian distribution of benefits than in a country with a weak gross national income. As a result, a smaller proportion of people will have less need to produce more children as a free source of labour supply, thereby producing a depressant effect on fertility.

The percentage of currently married or in-union women using modern contraceptive methods ranks second as the contributor in lowering fertility. Understandably, when a woman of reproductive age uses modern methods of contraception, she is more likely to produce, on the average, fewer children than a woman who does not use modern contraceptive methods. The third most important contributor in lowering fertility is the female literacy rate. The higher the percentage of female literacy the lower the fertility. Women with better education usually have a greater access to many opportunities of life, and hence lower fertility is perceived as more advantageous to them than higher fertility, since with lower fertility it is easier to reap the benefits of these opportunities, and as such, societies with lower levels of female literacy rates have greater likelihoods of having families with larger number of children ever born. Thus an increase in gross national income with an egalitarian distribution of its benefits to its people, an increase in the family planning effort to provide contraceptive services, and an increase in the female literacy rates are the important determinative factors for the reduction of fertility.

References

Aaby, P.,Bukh, J.,Lisse, I.M. and Smits, A.J. 1984. Overcrowding and Extensive Exposure as Determinants of Measles Mortality. *American Journal of Epidemiology*, 120, pp. 49-63.

Alam, I., and J.B. Casterline. 1984. Socioeconomic Differentials in Recent Fertility. Voorburg, Netherlands. International Statistical Institute. *World Fertility Survey Comparative Studies: Cross-National Summaries No.33.*

Anscombe, F.J. 1973. Graphs in Statistical Analysis. *American Statistician* 27:17-21.

Caldwell, John C., Phillips, James, F. and Barkat-e-Khuda. 2002. Family planning programs in the twenty-first century. *Studies in Family Planning* **33**, 1-10.

Casterline, J.B., S. Singh, J. Cleland, and H. Ashurst. 1984. The Proximate Determinants of Fertility. Voorburg, Netherlands. International Statistical Institute. *World Fertility Survey Comparative Studies No.39.*

Chatterjee, S., and B. Price. 1977. *Regression Analysis by Examples.* John Wiley and Sons.

Diamond, Ian, Tonkin, P., Rahman, A. P. M. and Noor, S. A. 1997. Spatial Variation in Contraceptive Method Use in Bangladesh. In *Bangladesh Demographic and Health Survey 1993-94, Extended Analysis* (Edited by A. Kantner, A. Al-Sabir, and N. Chakraborty). Dhaka: National Institute of Population Research and Training. 136-157.

Gist, N.P., and Fava, S.F. 1974. *Urban Society*. New York: Thomas Y. Crowell Company.

Goodkind, D. 2011. Child Underreporting, Fertility, and Sex Ratio Imbalance in China, *Demography* 48(1): 291-316

Jiang, Zhenghua. 1986. Impact of Socioeconomic Factors on China's Fertility. *Population Research* Vol.3(4):9-17.

Johnson, D. G. 2001. On Population and Resources: A Comment. *Population and Development Review* 27(4*)*, 739-747.

Kravdal, Oystein. 2002. Education and fertility in Sub-Saharan Africa: Individual and community effects. *Demography* **39**, 233-250.

Krishnan, Vijaya. 1988. Homeownership: Its impact on fertility. *Population Research*

Laboratory Discussion Paper No.51. University of Alberta, Department of Sociology.

Population Information Program. 1985. *Population Reports. Series M., Number 8 (Special Topics)* **13**, 290. The Johns Hopkins University, Maryland.

Population Reference Bureau, Inc. 2011. *World Population Data Sheet, 2011*. Washington, D.C., U.S.A.

Prada, E., and Gabriel Ojeda. 1987. Selected Findings from the Demographic and Health Survey in Colombia, 1986. *International Family Planning Perspectives*. Vol. 13 (4): 116-20.

Poston, Dudley L., and Gu, B. 1987. Socioeconomic development, family planning, and fertility in China. *Demography* **24**, 531-551.

Rubin-Kurtzman, Jane R. 1987. The Socioeconomic Determinants of Fertility in Mexico: Changing Perspectives. *Center for U.S. - Mexican Studies Monograph Series No.23*. University of California, La Jolla, California.

Shapiro, D., and Tambashe, B. O. 1994. The impact of women's employment and education on contraceptive use and abortion in Kinshasa, Zaire. *Studies in Family Planning* **25**, 96-110.

United Nations Department of Economic and Social Affairs, Population Division 2013. *World Fertility Data, 2012*.

United Nations Educational, Scientific and Cultural Organization (UNESCO). 2003-2013. *Adult Literacy Rate, Female by Country*. Institute for Statistics.

Appendix

Data of the Number of Children Ever Born and Seven Explanatory Variables for 87 Countries

Country	**Y**	**X1**	**X2**	**X3**	**X4**	**X5**	**X6**	**X7**
Jordan	5.35	83	41	5,730	74	88.9	40	4
Syria	5.95	54	43	4,620	122	77.2	41	17
Bangladesh	4.86	25	48	1,550	1,046	49.8	36	81
Bhutan	4.5	33	65	5,290	15	38.68	36	50
India	3.48	29	47	3,280	378	50.82	38	76
Kazakhstan	2.74	54	49	10,320	6	99.5	31	1
Kyrgyzstan	3.8	35	46	2,200	28	99.1	34	29
Maldives	6.3	35	27	5,250	1,091	98.43	33	12
Nepal	4.57	17	44	1,180	207	45.4	41	78
Pakistan	6.31	35	19	2,680	222	99.97	40	61
Sri Lanka	2.52	15	53	4,720	318	89.07	32	29
Tajikistan	5.61	26	32	1,950	53	99.5	42	51
Uzbekistan	4.31	36	59	2,910	64	98.9	34	77
Cambodia	4.46	20	35	1,820	81	70.86	37	57
Indonesia	3.82	43	57	3,720	125	88.97	34	51
Philippines	4.2	63	34	3,540	319	93.9	40	49
Thailand	2.2	31	77	7,640	135	91.53	30	27
Vietnam	2.61	30	68	2,790	265	90.2	32	38
China	2.09	50	84	6,890	141	90.5	26	36
Mongolia	4.53	61	61	3,330	2	97.8	32	39
Estonia	2.01	68	56	19,120	30	99.8	32	1
Latvia	1.81	68	56	17,610	34	99.8	31	1
South Africa	3.46	62	60	10,050	41	88.1	35	43
Swaziland	5.5	22	48	4,790	69	85.6	41	81
Belize	5.48	44	31	5,990	14	70.33	40	24
Costa Rica	3.1	65	72	10,930	92	96.2	31	5
El Salvador	4.7	65	66	6,420	296	81.36	40	15
Guatemala	4.8	50	44	4,570	135	68.7	45	26
Honduras	5.47	52	56	3,710	69	83.45	40	36
Mexico	3.31	78	66	14,020	59	91.45	35	9
Nicaragua	5.22	58	69	2,540	45	77.92	39	32
Dominican Republic	3.56	66	70	8,110	207	88.28	37	14
Jamaica	3.59	52	57	7,230	246	90.8	36	6
Argentina	3.05	93	64	14,090	15	97.7	36	1
Bolivia	5.17	67	34	4,250	9	85.99	41	25
Brazil	2.92	87	77	10,160	23	90.23	32	10
Colombia	2.94	75	73	8,600	41	93.44	35	28
Ecuador	3.39	68	59	8,100	52	81.68	36	13
Peru	3.8	77	51	8,120	23	84.65	37	15
Suriname	3.48	70	45	6,730	3	88.4	35	27
Uruguay	2.56	93	75	12,900	19	98.46	36	1
Armenia	2.53	64	27	5,410	105	99.4	30	12
Azerbaijan	2.52	54	13	9,020	106	99.22	29	8
Iraq	5.93	67	33	3,330	75	69.2	46	25
Algeria	5.96	67	52	8,110	15	63.92	32	24
Morocco	4.69	56	52	4,400	72	44.1	34	14
Tunisia	4.61	68	52	7,810	65	69.6	31	13
Benin	6.74	43	6	1,510	81	28.1	47	75
Burkina Faso	5.46	24	13	1,170	62	21.58	47	81
Cote d'Ivoire	6.15	51	8	1,640	70	44.3	45	46
Ghana	5.59	52	17	1,530	105	59.3	42	54
Guinea	6.55	28	6	940	42	26.4	46	70
Guinea-Bissau	6.58	30	14	1,060	45	36.5	44	78
Liberia	6.56	47	10	290	37	53	46	95

Mali	7.23	33	6	1,190	12	18.19	51	77
Mauritania	6.52	42	8	1,940	3	49.5	43	44
Niger	7.83	17	5	680	13	15.08	51	76
Nigeria	6.86	51	10	2,070	176	48.8	46	84
Senegal	6.07	43	10	1,810	65	32.99	46	60
Sierra Leone	7.02	39	7	790	75	28.9	46	76
Burundi	7.05	11	18	390	367	59.9	49	94
Ethiopia	7.25	17	14	930	79	22.8	47	78
Kenya	6.29	18	39	1,570	72	82.8	45	40
Madagascar	4.82	31	29	990	36	65.26	46	90
Malawi	5.17	14	42	780	134	65.8	48	91
Mozambique	5.37	31	12	880	29	40.1	48	82
Rwanda	6.37	19	45	1,130	415	66.1	45	90
Tanzania	6.35	27	26	1,360	49	66.3	48	88
Uganda	7.36	15	18	1,190	143	66.8	51	65
Zambia	6.75	36	27	1,280	18	61	49	82
Angola	7.07	59	5	5,190	16	57	50	70
Cameroon	6.5	59	12	2,190	42	67.8	45	31
Central African Republic	4.88	39	9	750	8	41.1	45	82
Chad	6.92	28	2	1,160	9	21.9	48	83
Gabon	6.1	86	12	12,450	6	83.2	39	20
Sao Tome & Principe	6.14	63	33	1,850	187	83.3	47	57
Belarus	1.79	75	56	12,740	46	99.7	29	1
Bulgaria	1.95	73	40	13,260	67	97.5	32	7
Hungary	1.91	68	71	19,090	107	98.9	31	1
Moldova	2.39	42	43	3,010	121	97.8	27	13
Poland	2.82	61	28	18,290	122	99.3	29	1
Russia	1.93	74	65	18,330	8	99.4	28	1
Ukraine	1.7	69	48	6,180	76	99.6	30	1
Albania	2.95	50	10	8,640	111	98.7	32	4
Bosnia-Herzegovina	3.37	46	11	8,770	75	95.9	29	1
Slovenia	1.82	50	63	26,470	101	99.7	31	1
Papua New Guinea	5	13	24	2,260	15	55.6	43	57