

**PHG Needs Assessment Calculator**  
**Bolivia, Plurinational State of**  
**Teratogens**

Welcome to the PHG Health Needs Assessment Calculator for Teratogens. The contents of this file are listed below.

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(There is no sheet TER-NA2.)

**Bolivia, Plurinational State of****Shared Data****Demographic, maternal health and socio-economic indicators**

Please read first! If you have already completed a needs assessment for a different topic in this country, you will be able to copy the Demography information from that Calculator into here. The information should be the same.

By default, the Toolkit contains information at the national level.

If you would like to use a different population, then replace country information with that of your specific population of interest.

Number of persons by age-group and sex	Estimates			Your estimates			Chosen estimates		
Age group	Male	Female	Total	Male	Female	Total	Male	Female	Total
0-4 years	563369	524188	1087557			0			0
5-9 years	555014	528733	1083747			0			0
10-14 years	522028	504742	1026770			0			0
15-19 years	439199	434052	873251			0			0
20-24 years	382029	398442	780471			0			0
25-29 years	298278	313103	611381			0			0
30-34 years	255151	267069	522220			0			0
35-39 years	226916	242849	469765			0			0
40-44 years	204387	209783	414170			0			0
45-49 years	166277	170099	336376			0			0
50-54 years	135610	138938	274548			0			0
55-59 years	107560	107250	214810			0			0
60-64 years	82045	84571	166616			0			0
65+ years	185987	226656	412643			0			0
Total	0	0	8274325	0	0	0	0	0	0
Female population aged 15-44 years		0			-			-	
Data year	2001 reported in 2007								
Source, Year	UN 2011								

**Ethnicity.** Please enter data for the main ethnic groups if you are working with a population that is different from that of the country.

Ethnic group	Number	% population

<b>Fertility and mortality</b>	<b>Estimate</b>	<b>Source, Year</b>	<b>Your estimate</b>	<b>Source, Year</b>	<b>Chosen estimate</b>	<b>Source, Year</b>
Crude birth rate: live births (LB) / year / 1000 population	28	Unicef, 2007				
Still birth rate: still births (SB) / year / 1000 total births	17	WHO, 2009				
Total births in 1000s (LB+SB) per year	263	Unicef, 2007				
Infant mortality rate: infant deaths / 1000 LB / year	42	UNICEF				
Under-5 mortality rate: U5 deaths / 1000 LB / year	54	(2011), 2010				
Percentage births in women >35 years		(2011), 2010				
Life expectancy at birth (yrs)	68	WHO, 2009				
% of marriages consanguineous						

<b>Maternal health</b>	<b>Estimate</b>	<b>Source, Year</b>	<b>Your estimate</b>	<b>Source, Year</b>	<b>Chosen estimate</b>	<b>Source, Year</b>
Prenatal visits – at least 1 visit (%)	86	WHO, 2008				
Prenatal visits – at least 4 visits (%)	72	WHO, 2008				
Births attended by skilled health personnel (%)	71	WHO, 2008				
Contraception prevalence rate (%)	60.5	WHO, 2008				
Unmet need for family planning (%)	20.2	WHO, 2008				
Total fertility rate	3.4	WHO, 2009				
% home births						
% births at health care services						
<b>Newborn health</b>	<b>Estimate</b>	<b>Source, Year</b>	<b>Your estimate</b>	<b>Source, Year</b>	<b>Chosen estimate</b>	<b>Source, Year</b>
Number of neonatal examinations by SBA / trained staff						
% neonatal examinations by SBA/ trained staff						

<b>Socio-economic indicators</b>	<b>Estimate</b>	<b>Source, Year</b>	<b>Your estimate</b>	<b>Source, Year</b>	<b>Chosen estimate</b>	<b>Source, Year</b>
Gross national income per capita (PPP int. \$)	4140	WHO, 2008				
% population living on < US\$1 per day	19.6	WHO, 2005				
Birth registration coverage (%)	74	WHO, 2001				
Death registration coverage (%)						

LB = live births

PPP = purchasing power parity

SBA = skilled birth attendant

**Bolivia, Plurinational State of**  
**Shared Data**  
**Health Services Data**

**Please read first!** If you have already completed a needs assessment for a different topic in this country, you will be able to copy the Health Services information from that Calculator into here. The information should be the same.

This section provides health-service-related information for your country.

**By default, the Toolkit contains information at the national level.**

**If you would like to use a different population, then replace country information with that of your specific population of interest.**

<b>Health Expenditure</b>	<b>Estimate</b>	<b>Source, Year</b>	<b>Your estimate</b>	<b>Source, Year</b>	<b>Chosen estimate</b>	<b>Source, Year</b>
Per capita total expenditure on health (PPP int. \$)	213	WHO, 2009				
Total expenditure on health as percentage of GDP	4.8	WHO, 2009				
Per capita government expenditure on health (PPP int. \$)	135	WHO, 2009				
External resources for health as percentage of total expenditure on health	7.4	WHO, 2009				
General government expenditure on health as percentage of total expenditure on health	63.3	WHO, 2009				
Out-of-pocket expenditure as percentage of private expenditure on health	81.9	WHO, 2009				
Private expenditure on health as percentage of total expenditure on health	36.7	WHO, 2009				
General government expenditure on health as percentage of total government expenditure	7.4	WHO, 2009				

<b>Health Workforce</b>	<b>Estimate</b>	<b>Source, Year</b>	<b>Your estimate</b>	<b>Source, Year</b>	<b>Chosen estimate</b>	<b>Source, Year</b>
Number of nursing and midwifery personnel	18091	WHO, 2001				
Nursing and midwifery personnel density (per 10,000 population)	21.3	WHO, 2001				
Number of physicians	10329	WHO, 2001				
Physician density (per 10,000 population)	12.2	WHO, 2001				
Number of obstetricians						
Number of paediatricians						
Number of paediatric surgeons						
Number of paediatric cardiac surgeons						
Number of paediatric neurosurgeons						
Number of clinical geneticists						
Number of genetic counsellors						
Number of community health workers						
Number of skilled birth attendants (SBA)						
Density of SBA						
Number of lab staff providing cytogenetic testing						

Number of lab staff providing molecular genetics						
Number of lab staff providing biochemical tests for genetics						
Number of skilled health attendants						

<b>Infrastructure</b>	<b>Estimate</b>	<b>Source, Year</b>	<b>Your estimate</b>	<b>Source, Year</b>	<b>Chosen estimate</b>	<b>Source, Year</b>
Number of maternity units						
Number of services providing specialised care for people with CD						
Number of family planning services						
Number of preconception services						
Number of services providing prenatal care						
Number of services providing newborn care						
Number of facilities providing genetic services						
Number of laboratories providing cytogenetics						
Number of laboratories providing molecular genetics						
Number of laboratories providing biochemical tests for genetics						
Number of facilities for safe terminations of pregnancies for fetal defects						

PPP = purchasing power parity

GDP = gross domestic product

SBA = skilled birth attendant

CD = congenital disorders

**Bolivia, Plurinational State of****Teratogens****Teratogenic risk factors for congenital disorders in women of reproductive age**

<b>Risk factors</b>	<b>Proportion of women with risk factor</b>	<b>Qualitative assessment*</b>	<b>Variation</b>	<b>Source</b>
Teratogen exposure: environmental, agricultural and occupational				
Exposure to teratogenic prescribed and non-prescribed medicines				
Syphilis				
Rubella susceptibility				
Rubella infection				
Other infections (e.g. CMV or HIV)				
Alcohol consumption				
Tobacco use				
Iodine deficiency				
Folate deficiency				
Other risk factors				
Obesity				
Diabetes				

\* Complete if numerical data are unavailable. Use numbers from 1 to 5, where 1 = low importance and 5 = high importance.

**Bolivia, Plurinational State of****Teratogens****Epidemiology teratogen associated congenital disorders**

Please enter data either for a specific teratogen or for congenital disorders caused by teratogens as a whole.

<b>Table TER-NA1.2a Burden of disease in pregnancy, at birth and at population level</b>			
	Chosen estimates		
Indicator	Number (n)	n/1000 TB	Range of prevalence (/1000 TB)
Annual affected live births (LB)			
Annual affected stillbirths (SB)			
Annual affected births (LB+SB)			
Annual affected persons (all age groups)			
<b>Table TER-NA1.2b Mortality indicators</b>			
	Chosen estimates		
Indicator	Number (n)	n/1000 LB	Range of prevalence (/1000 TB)
Annual overall mortality			
Annual neonatal mortality			
Annual infant mortality			
Annual under-5 mortality			
Mean life expectancy at birth among affected people			

TB = total births (live births + stillbirths)

**Bolivia, Plurinational State of**  
**Teratogens**  
**TER Interventions 1:Effect of preconception screening and treatment**

Baseline prevalence of teratogen-induced congenital disordersper 1000 total births (live + still)		
Variables		
Proportion of women reducing teratogen risk to safe levels during pregnancy		Range: 0 to 1
Effectiveness of interventions on the outcome		Range: 0 to 1
Results		
% prevalence reduction due to intervention per 1000 total births		0%
Final prevalence of teratogen-induced congenital disorders per 1000 births		0.000



**Bolivia, Plurinational State of****Teratogens****TER Interventions 1: Effects of prenatal screening and pregnancy termination**

Assumption: prenatal services are equally used for cases which would lead to still births and live births.

This could overestimate the impact of ToP if in fact ToP is more likely for severe cases that would result in still birth.

Conversely, the impact of ToP could be underestimated if screening is only available to high-income women at lower risk.

100% specificity of prenatal diagnosis assumed.

Baseline prevalence, per 1000 TB (LB + SB)		See previous sheet. Use baseline either before or after interventions.
Variables		
Coverage of prenatal diagnosis		Range: 0 to 1
Choice of ToP in confirmed cases		Range: 0 to 1
Results		
% prevalence reduction due to PNS	0%	
Prevalence reduction due to PNS	0.000	
Final prevalence after PNS	0.000	

PNS = prenatal screening

ToP = termination of pregnancy

TB = total births (live births + still births)

**Bolivia, Plurinational State of****Teratogens****TER Needs Assessment 3: Quantitative assessment of interventions**

<b>Table TER-NA3a</b>	<b>Estimated prevalence in the absence of interventions for TER</b>	
Indicator	Number (n)	Prevalence (n/1000)
Women of childbearing age at increased teratogenic risk		
Potential live births		
Potential still births		

<b>Table TER-NA3b</b>	<b>Current situation in relation to interventions before pregnancy</b>		
Intervention	Coverage (%)	Cases averted (n)	Cases averted/1000 TB
Effect of family planning, education			
Occupational health monitoring			
Environmental health monitoring			
Interventions to reduce risk			
Information on risks and exposures			
Overall effect			

<b>Table TER-NA3c</b>	<b>Target situation in relation to interventions before pregnancy</b>		
Intervention	Coverage (%)	Cases averted (n)	Cases averted/1000 TB
Effect of family planning, education			
Occupational health monitoring			
Environmental health monitoring			
Interventions to reduce risk			
Information on risks and exposures			
Overall effect			

<b>Table TER-NA3d</b>	<b>Current situation in relation to interventions during pregnancy</b>		
Intervention	Coverage (%)	Cases managed (n)	Cases managed/1000 TB
Education on risks			
Targeted prenatal screening based on exposure			
Prenatal diagnosis			
Termination of pregnancy			
Maternal protection legislation			
Information on risks and exposures			
Overall effect			

<b>Table TER-NA3e</b>	<b>Target situation in relation to interventions during pregnancy</b>		
Intervention	Coverage (%)	Cases managed (n)	Cases managed/1000 TB
Education on risks			
Targeted prenatal screening based on exposure			
Prenatal diagnosis			
Termination of pregnancy			
Maternal protection legislation			
Information on risks and exposures			
Overall effect			

<b>Table TER-NA3f</b>	<b>Current situation in relation to interventions after birth</b>		
Intervention	Coverage (%)	Cases managed (n)	Cases managed/1000 LB
Effect of newborn screening			
Effect of newborn diagnosis			
Effect of clinical and related interventions			
Effect of social care and support			
Effect of education interventions			
Compensation legislation			
Overall effect			

<b>Table TER-NA3g</b>	<b>Target situation in relation to interventions after birth</b>		
Intervention	Coverage (%)	Cases managed (n)	Cases managed/1000 LB
Effect of newborn screening			
Effect of newborn diagnosis			
Effect of clinical and related interventions			
Effect of social care and support			
Effect of education interventions			
Compensation legislation			
Overall effect			

<b>Table TER-NA3h</b>	<b>Current and desired outcomes</b>			
	<b>Current situation</b>		<b>Target situation</b>	
Indicator	Annual number (n)	Incidence (n/1000)	Annual number (n)	Incidence (n/1000)
<b>Estimated affected pregnancies</b>				
Live births (LB)				
Still births (SB)				
All births (LB+SB)				
<b>Estimated population prevalence</b>				
All age groups				
<b>Estimated mortality / 1000 live births</b>				
Neonatal deaths				
Infant deaths				
Under-5 deaths				

TB = total births (live births + still births)