

Birth Defects in Cuba 2001–2013

Every year, an estimated 7.9 million children worldwide are born with severe birth defects that are totally or partially genetically determined. More than 90% of them are born in low- and middle-income countries lacking the infrastructure to provide the health care these infants need. In the most developed countries, about 30% of these children die in early childhood, 30% receive palliative treatment and live with chronic disability, and the remaining 40% receive curative treatment or have the condition's health impact significantly reduced, mainly through surgery.[1]

In Cuba, birth defects are the second leading cause of death in children aged <1 year, preceded by certain conditions originating in the perinatal period and followed by influenza and pneumonia, septicemia (except of the newborn) and unintentional injuries (Table 1).[2]

Table 1: Main causes of infant mortality, Cuba (2013)

Cause	Deaths	Rate/1000 live births
Certain conditions originating in the perinatal period	273	2.2
Congenital malformations, deformities and chromosomal abnormalities	113	0.9
Influenza and pneumonia	27	0.2
Septicemia, except of the newborn	16	0.1
Unintentional injuries	12	0.1

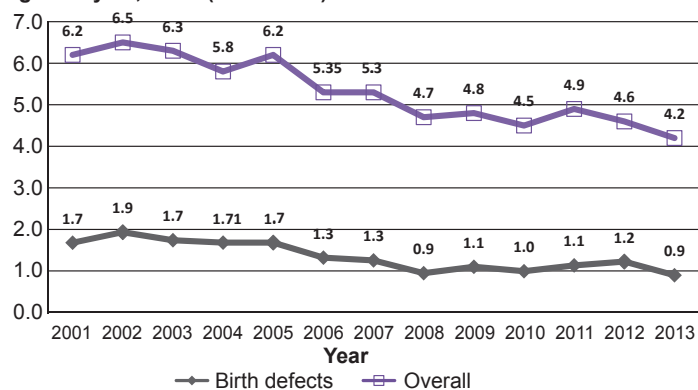
Source: Health Statistics Yearbook, Cuba, 2013

Table 2: Deaths, overall and from birth defects, in children aged <1 year, Cuba (2001–2013)

Year	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Live births	138718	141276	136795	127192	120716	111323	112472	122569	130037	127746	133067	125674	125880
Total deaths	861	922	859	736	746	589	592	579	626	581	653	581	525
Total deaths from birth defects	233	273	238	214	203	147	141	116	143	127	151	154	113
Mortality rate, birth defects	1.7	1.9	1.7	1.7	1.7	1.3	1.3	0.9	1.1	1.0	1.1	1.2	0.9
Mortality rate, overall	6.2	6.5	6.3	5.8	6.2	5.3	5.3	4.7	4.8	4.5	4.9	4.6	4.2
Birth defects as % of infant mortality	27.1	29.6	27.7	29.1	27.2	25.0	23.8	20.0	22.8	21.9	23.1	26.5	21.5

Sources: Health Statistics Yearbook, Cuba, 2013; National Medical Records and Health Statistics Bureau, Ministry of Public Health, Cuba

Figure 1: Mortality rates, overall and from birth defects, in children aged <1 year, Cuba (2001–2013)



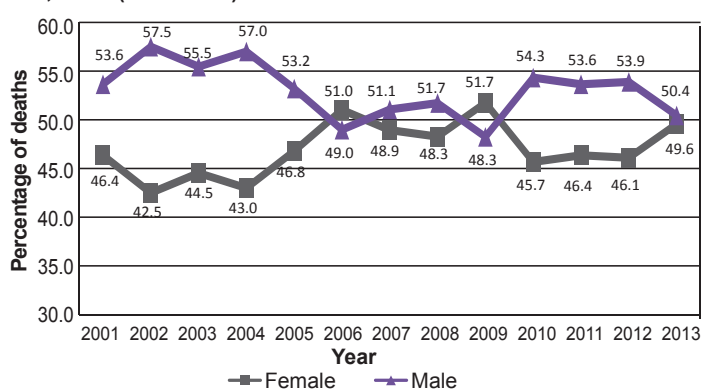
Sources: Health Statistics Yearbook, 2013; Mortality Records, National Medical Records and Health Statistics Bureau, Ministry of Public Health, Cuba

In the period 2001–2013, birth defects caused 20%–30% of deaths in children aged <1 year (Table 2, Figure 1).[2] Mortality from birth defects is slightly higher in boys than girls (Figure 2). Malformations of the heart and great vessels are the most frequent fatal birth defects, followed by abnormalities in the digestive, musculoskeletal and respiratory systems (Figure 3). Provinces with highest infant mortality from birth defects in 2007–2013 were Santiago de Cuba, Guantánamo, Villa Clara, Camagüey, Cienfuegos and Havana (Figure 4).

Cuba has implemented a national program for diagnosis, management and prevention of birth defects,[3] which, at different pregnancy stages, provides options for antenatal diagnosis of birth defects and genetic diseases. In cases where a severe congenital defect is detected in the fetus, meaning the child is likely to die in the first year of life, a couple may choose to terminate pregnancy. Statistics for 2001–2013 show that couples choose this alternative in 7 of 1000 pregnancies. In Western Europe the comparable figure for 1980–1999 was 3.5/1000 pregnancies, ranging from 1/1000 in Portugal to nearly 6/1000 in France.[1]

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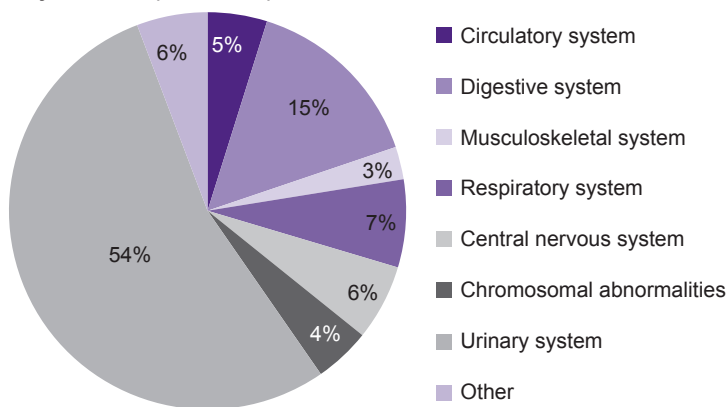
Figure 2: Mortality from birth defects in children aged <1 year by sex, Cuba (2001–2013)



Source: Mortality Records, National Medical Records and Health Statistics Bureau, Ministry of Public Health, Cuba

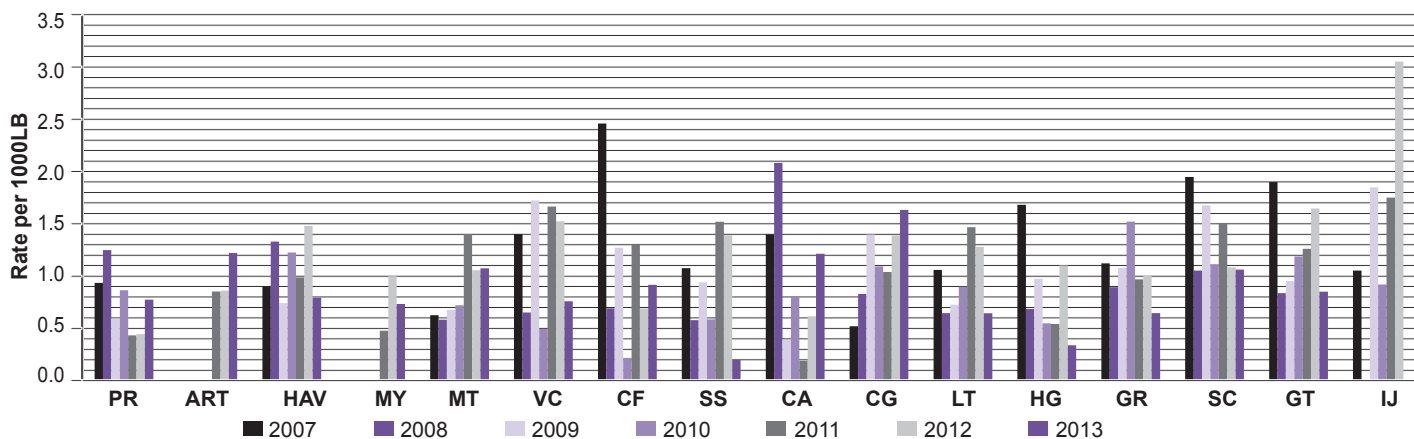
Facts & Figures

Figure 3: Most frequent types of fatal birth defects in children aged <1 year, Cuba (2001–2013)



Source: Mortality Records, National Medical Records and Health Statistics Bureau, Ministry of Public Health, Cuba

Figure 4: Infant mortality rates from birth defects in Cuba by province*, 2007–2013



*includes Isla de la Juventud Special Municipality; the provinces of Artemisa and Mayabeque reflect a new political-administrative division effective in 2011, so their data are for 2011–2013 only.

PR: Pinar del Río ART: Artemisa HAV: Havana MY: Mayabeque MT: Matanzas VC: Villa Clara CF: Cienfuegos SS: Sancti Spiritus
CA: Ciego de Ávila CG: Camagüey LT: Las Tunas HG: Holguín GR: Granma SC: Santiago de Cuba GT: Guantánamo IJ: Isla de la Juventud Special Municipality

Source: Mortality Records, National Medical Records and Health Statistics Bureau, Ministry of Public Health, Cuba