



WHO / UNICEF

**Joint Monitoring Programme
for Water Supply and Sanitation**

**Coverage Estimates
Improved Sanitation**

Updated in July 2008

Brazil

Urban and Rural Sanitation -

Surveys

Sanitation		Urban	Rural
Rede esgoto/pluvial	Flush toilet (sewage syst.)	51	3
Fossa septica	Septic tank stand alone	23	15
Fossa rudimentar	Basic latrine	19	36
Vala Aberta		4	5
Qualque Lugar		2	33
Outro		1	7
DK		0	0
Total		100	99
access to improved sanitation coverage (excl. Fossa Rudimentar)		74	18
access to improved sanitation coverage (incl. 50% Fossa Rudimentar)		84%	36%
% House connections		51%	3%
Open defecation		2%	33%

Pesquisa Nacional Sobre Saude Materno-Infantil e Planejamento Familiar, Brasil - 1986. Sociedade Civil Bem-Estar Familiar no Brasil (BEMAF),

- BRAZIL

DHS		1996	
Sanitation		Urban	Rural
Rede esgoto/pluvial	Flush toilet (sewage syst.)	50.3	6.3
Vala aberta/negra	Communal Pit	4	6.3
Direto rio/mar/lago	Into river/sea/lake	1.2	3.5
Fossa set.ligada a rede	Septic tank on system	12.1	3.9
Fossa sept.nao ligada a rede	Septic tank stand alone	17.3	19.8
Fossa rudimentar	Basic latrine	10.6	22.4
Nao tem sanitario	No facility	4.2	37.4
Outra	Other	0	0
Total	Total	99.7	99.6
access to improved sanitation coverage (excl. Fossa Rudimentar)		80	30
access to improved sanitation coverage (incl. 50% Fossa Rudimentar)		85%	41%
% House connections		50%	6%
Open defecation		4%	37%

Pesquisa Nacional Sobre Demografia e Saude, 1996. BEMFAM, IBGE, Ministerio da Saude. DHS USAID, UNEPA, UNICEF March 1997

WHS			2003	
Proportion shared improved facilities/all improved facilities		2.0%	3.3%	
Private domestic connection to sewage system	72.2	12.8		
Shared domestic connection to sewage system	1.3	0.7		
Private flush to septic tank	20.4	47.1		
Shared flush to septic tank	0.4	1.0		
Private pour flush latrine	1.7	4.5		
Shared pour flush latrine	0.1	0.1		
Private covered dry latrine (with privacy)	0.8	6.1		
Shared covered dry latrine (with privacy)	0.2	0.6		
Uncovered dry latrine (without privacy)	0.4	1.7		
Bucket latrine (where fresh excreta are manually removed)	0.2	1.5		
No facilities (open defecation)	0.9	16.2		
Other	1.3	7.5		
TOTAL	100.0	100.0		
Shared sanitation	2.0	2.4%		
% Improved sanitation	97%	73%		
% Sewerage connections	74%	14%		
Open defecation	1%	16%		

Source: World Health Survey, WHO, 2003.

Estimate		
FORM6/WHO		1999
Sanitation	Urban	Rural
Population served with household connections to conventional sewers	59121	1116
Population without household connections but served with adequate, private or shared on-site system	29891	3476
Total population served	89012	4592
Total population unserved	35127	27149
Total population	124139	31741
Access to improved sanitation	72%	14%
% House connections	48%	4%
Open defecation		

Global Water Supply and Sanitation Assessment 2000. Water Supply and Sanitation Sector

Census 2000		
SANITATION	Urban	Rural
General sewage or rain system	56.3	5.7
Septic tank	16.4	15.2
Rudimentary cesspool	21.8	63.6
Ditch	2.4	6.9
River, lake or ocean	2.4	5.7
Other drainage	0.7	2.9
TOTAL	100.0	100.0
50% of Pit considered Improved	10.9	31.8
Access to improved sanitation	84%	53%
% House connections	56%	6%
Open defecation	6%	16%

Source: Brazil census 2000 (10% micro dataset from IPIUMS)

Urban and Rural Sanitation -

PNAD		1990
Sanitation		Urban
Rede coletora	Flush toilet (sewage syst.)	53
Fossa septica	Septic tank	18
Fossa rudimentar	Basic latrine	22
Outra	Other	7
Total	Total	100
access to improved sanitation coverage (excl. Fossa Rudimentar)		71
access to improved sanitation coverage (incl. 50% Fossa Rudimentar)		82%
% House connections		53%

Open defecation

IBGE, CD-ROM, Brazil

PNAD		1993
Sanitation		Urban
Rede coletora	Flush toilet (sewage syst.)	48
Fossa septica	Septic tank	22
Fossa rudimentar	Basic latrine	20
Outra	Other	9
Total	Total	99
access to improved sanitation coverage (excl. Fossa Rudimentar)		70
access to improved sanitation coverage (incl. 50% Fossa Rudimentar)		80%
% House connections		48%

Open defecation

IBGE, CD-ROM, Brazil

Urban and Rural Sanitation -

PNAD		1996
Sanitation		
		Urban
Rede coletora	Flush toilet (sewage syst.)	49
Fossa septica	Septic tank	25
Fossa rudimentar	Basic latrine	18
Outra	Other	8
Total	Total	100
access to improved sanitation coverage (excl. Fossa Rudimentar)		74
access to improved sanitation coverage (incl. Fossa Rudimentar)		83%
% House connections		49%

Open defecation

IBGE, CD-ROM, Brazil

PNAD			
Sanitation		Urban	
Rede coletora	Flush toilet (sewage syst.)	51	
			1998
Fossa septica	Septic tank	24	
			Rural
Fossa rudimentar	Basic latrine	18	6
Outra	Other	7	
Total	Total	100	
access to improved sanitation coverage (excl. Fossa Rudimentar)		75	
access to improved sanitation coverage (incl. 50% Fossa Rudimentar)		84%	
% House connections		51%	
Open defecation			6

IBGE, CD-ROM, Brazil

Urban and Rural Sanitation -

LSMS		1997	
		6%	
SANITATION	Urban	Rural	
Sewer system	61.7	7.4	
Septic tank	12.6	7.8	
Rudimentary pit or cesspool	16.6	37.2	
Ditch or trench	2.4	4.5	
Other	2.7	8.5	
No sewage disposal system	4	34.6	
TOTAL	100	100	
50% of Pit considered Improved	8.3	18.6	
Access to improved sanitation	83%	34%	
% House connections	62%	7%	
Open defecation	4%	35%	

Source: LIVING STANDARDS MEASUREMENT STUDY SURVEY, Brazil, 1997

PNAD		2003	
SANITATION	Urban	Rural	
Rede coletora	53.4	3.7	
Fossa septica	22.3	13.5	
Outro	21.9	53.2	
Nao tinham	2.4	29.6	
Sem declaracao	0.0	0.0	
TOTAL	100.0	100.0	
50% of Pit considered Improved	0.0	0.0	
Access to improved sanitation	76%	17%	
% House connections	53%	4%	
Open defecation	2%	30%	

Source: Pesquisa Nacional por Amostra de Domicilios, 2003

- BRAZIL

PNAD		1992
Sanitation		Urban
Rede coletora	Flush toilet (sewage syst.)	48
Fossa septica	Septic tank	20
Fossa rudimentar	Basic latrine	21
Outra	Other	10
Total	Total	99
access to improved sanitation coverage (excl. Fossa Rudimentar)		68
access to improved sanitation coverage (incl. 50% Fossa Rudimentar)		79%
% House connections		48%

Open defecation

IBGE, CD-ROM, Brazil

PNAD		1995
Sanitation		Urban
Rede coletora	Flush toilet (sewage syst.)	48
Fossa septica	Septic tank	23
Fossa rudimentar	Basic latrine	20
Outra	Other	8
Total	Total	99
access to improved sanitation coverage (excl. Fossa Rudimentar)		71
access to improved sanitation coverage (incl. 50% Fossa Rudimentar)		81%
% House connections		48%

Open defecation

IBGE, CD-ROM, Brazil

- BRAZIL

PNAD		1997
Sanitation		Urban
Rede coletora	Flush toilet (sewage syst.)	49
Fossa septica	Septic tank	24
Fossa rudimentar	Basic latrine	19
Outra	Other	8
Total	Total	100
access to improved sanitation coverage (excl. Fossa Rudimentar)		73
Rudimentar)		83%
% House connections		49%

Open defecation

IBGE, CD-ROM, Brazil

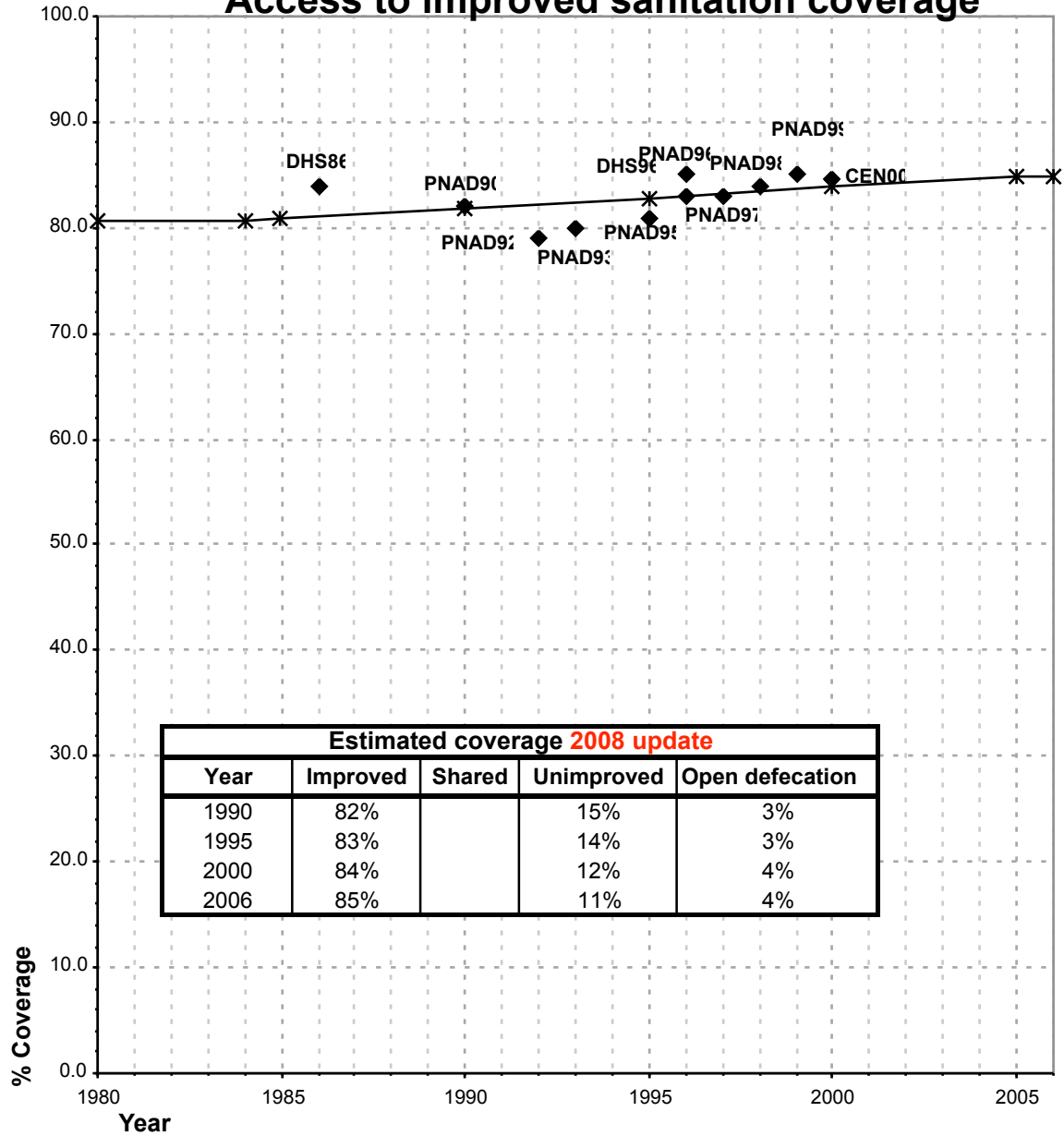
PNAD		1999
Sanitation		Urban
Rede coletora	Flush toilet (sewage syst.)	53
Fossa septica	Septic tank	23
Fossa rudimentar	Basic latrine	18
Outra	Other	6
Total	Total	100
access to improved sanitation coverage (excl. Fossa Rudimentar)		76
access to improved sanitation coverage (incl. 50% Fossa Rudimentar)		85%
% House connections		53%

Open defecation

IBGE, CD-ROM, Brazil

Brazil			SANITATION											
			URBAN				RURAL				OPEN DEFECACTION			
			HC		Total		HC		Total		Urban		Rural	
Source	Code	Year	Used for estimates	Not used for estimates	Used for estimates	Not used for estimates	Used for estimates	Not used for estimates	Used for estimates	Not used for estimates	Used for estimates	Not used for estimates	Used for estimates	Not used for estimates
The International Drinking Water Supply and Sanitation Decade. Review of National Baseline Data (as at December 1980). WHO 1984	WHO80	1980		32.0		32.0								
The International Drinking Water Supply and Sanitation Decade. Review of National Progress (as at December 1983). WHO 1986	WHO83	1983		33.0										
The International Drinking Water Supply and Sanitation Decade. Review of Mid-Decade Progress (as at December 1985). WHO 1987.	WHO85	1985		36.0										
Sociedade Civil Bem-Estar Familiar no Brasil (BEMAF), Pesquisas Demograficas e de Saude, Instituto Para Desenvolvimento de Recursos (IRD). DHS. December 1987.	DHS86	1986	51.0		84.0		3.0		36.0		2.0		33.0	
The International Drinking Water Supply and Sanitation Decade. Review of National Progress (as at December 1988). WHO 1990	WHO88	1988		40.0		89.0				41.0				
The International Drinking Water Supply and Sanitation Decade. End of decade review (as at December 1990). WHO 1992	WHO90	1990		40.0		84.0				32.0				
IBGE, CD-ROM, Brazil	PNAD90	1990	53.0		82.0									
Water Supply and Sanitation Sector Monitoring Report - 1996. Sector status as of 31 December 1994. WHO/UNICEF. 1996.	JMP93	1991				55.0				3.0				
	CEN91	1991												
IBGE, CD-ROM, Brazil	PNAD92	1992	48.0		79.0									
IBGE, CD-ROM, Brazil	PNAD93	1993	48.0		80.0									
IBGE, CD-ROM, Brazil	PNAD95	1995	48.0		81.0									
IBGE, CD-ROM, Brazil	PNAD96	1996	49.0		83.0									
Pesquisa Nacional Sobre Demografia e Saude, 1996. BEMFAM, IBGE, Ministerio da Saude, DHS, USAID, UNFPA, UNICEF. March 1997.	DHS96	1996	50.0		85.0		6.0		41.0		4.0		37.0	
IBGE, CD-ROM, Brazil	PNAD97	1997	49.0		83.0									
IBGE, CD-ROM, Brazil	PNAD98	1998	51.0		84.0		6.0							
Global Water Supply and Sanitation Assessment 2000. Water Supply and Sanitation Sector Questionnaire - 1999. (WS99-sent to WHO).	JMP99	1998		47.6		94.0		3.5		53.0				
IBGE, CD-ROM, Brazil	PNAD99	1999	53.0		85.0									
Censo Demográfico 2000 - resultados de universo	CEN00	2000	56.0		84.6		5.0		55.0		3.0		60.0	
LIVING STANDARDS MEASUREMENT STUDY SURVEY, Brazil, 1997	LSMS97	1997	62.0				7.0							
World Health Survey, WHO, 2003.	WHS03	2003		74.0		97.0		14.0		73.0		1.0		16.0
Pesquisa Nacional por Amostra de Domicilios, 2003	PNAD03	2003	53.0				4.0							

Brazil - urban - Access to improved sanitation coverage



Improved plus Shared

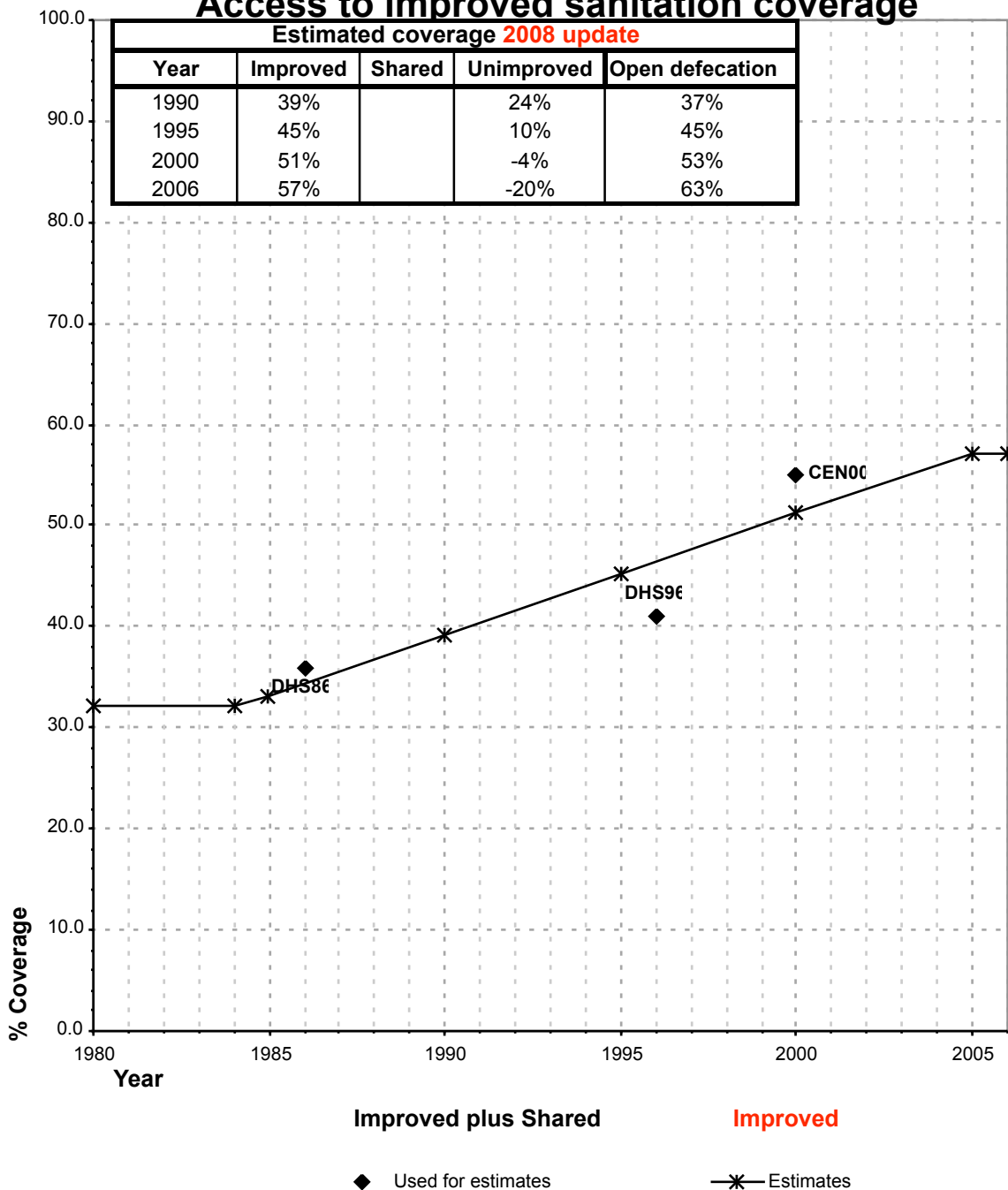
Improved

◆ Used for estimates

—*— Estimates

Total access : LSMS97 has not been used because the data refers to the sewage disposal rather to facility.
 PNAD03 has not been used because the category "Others" is too high (22%).
 WHS03 has not been used as it is too much of an outlier

Brazil - rural - Access to improved sanitation coverage



Total access : LSMS97 has not been used because the data refers to the sewage disposal rather to facility.

PNAD03 has not been used because the category "Others" is too high (53%).

WHS03 has not been used as it is too much of an outlier