



WHO / UNICEF

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

Coverage Estimates
Improved Sanitation

Updated in July 2008

China

CHS 1989		
Not nationally representative		
Sanitation	Urban	Rural
Flush, in-house	30.5	3.5
Flush, outside house	1.8	1.0
No flush, in-house (latrine)	7.4	5.3
No flush, outside house (latrine)	20.0	14.1
Cement open pit	17.9	25.8
Earth open pit	14.5	42.1
none	5.4	3.3
Other	2.5	4.9
Total	100.0	100.0
% Sewerage estimated based on WHS03	22.9	0.9
% Use of an improved sanitation facility	60%	24%
% Sewerage connection	23%	1%

China Economic, Population, Nutrition, and Health Survey, 1989 Household survey.

CHS 1991		
Not nationally representative		
Sanitation	Urban	Rural
Flush, in-house	31.2	4.2
Flush, outside house	7.8	4.1
No flush, in-house (latrine)	4.8	4.1
No flush, outside house (latrine)	17.6	19.2
Cement open pit	23.6	28.9
Earth open pit	11.9	32.9
none	2.1	0.9
Other	1.0	5.7
Total	100.0	100.0
ratio improved non-flush pit	0.39	0.27
% Sewerage estimated based on WHS03	27.7	1.6
% Use of an improved sanitation facility	61%	32%
% Sewerage connection	28%	2%

China Economic, Population, Nutrition, and Health Survey, 1991 Household survey.

NMICS				1992			
Sanitation				Urban	Rural	Total	
Flush	58.1	1.5	17.3				
Dry latrine	33.0	83.9	69.6				
Biogas/3-compartment	0.6	0.8	0.7				
Bucket latrine	6.0	4.1	4.6				
No latrine	2.3	9.8	7.7				
TOTAL	100.0	100.1	99.9				
50% of dry latrine considered improved	16.5	42.0					
% Sewerage estimated based on WHS03	41.3	0.3					
% Use of an improved sanitation facility	75%	44%					
% Sewerage connection	41%	0%					

Census			1992		
Proportion shared improved facilities/all improved facilities			0.17	0.01	
SANITATION			Urban	Rural	
Private flush			42.3	2.2	
Shared/public flush			11.7	0.5	
Dry toilet			36.9	83.3	
Private methane			0.1	0.7	
Shared/public methane			0.5	0.2	
Private bucket			5.5	4.2	
Shared/public bucket			0.1	0.1	
No toilet			2.9	8.8	
TOTAL			100.0	100.0	
50% of dry latrine considered improved			18.4	41.7	
% Sewerage estimated based on WHS03			38.4	0.5	
% Use of an improved sanitation facility			73%	45%	
% Sewerage connection			38%	1%	

Source: China census 1992 (10% micro dataset from IPUMS).

NHSS			1993		
Sanitation	Urban	Rural			
Water flush	65.9	2.5			
Urine diversion three-in-one bioga					
three compart	2.0	0.8			
Double Urn funnel	0.5	1.9			
Other Sanitary	0.0	0.0			
Total	68.4	5.2			
Proportion of all "unsanitary latrines" considered to meet MDG/JMP definition of improvement on NMICS92	12.8	41.0			
% Use of an improved sanitation facility	81%	46%			
% Sewerage connection					

National Health Service Survey, (MOH), 1993

CHS			1993		
Sanitation	Urban	Rural			
Flush, in-house	41.8	6.7			
Flush, outside house	7.4	4.2			
No flush, in-house (latrine)	5.2	4.6			
No flush, outside house (latrine)	11.4	14.8			
Cement open pit	20.8	32.7			
Earth open pit	11.9	34.4			
none	1.3	1.3			
Other	0.2	1.3			
Total	100.0	100.0			
% Sewerage estimated based on WHS03	34.9	2.1			
% Use of an improved sanitation facility	66%	30%			
% Sewerage connection	35%	2%			

China Economic, Population, Nutrition, and Health Survey, 1993, Household survey.

CHS			1997		
<i>Not nationally representative</i>					
Sanitation	Urban	Rural			
Flush, in-house	50.5	17.1			
Flush, outside house	9.3	2.9			
No flush, in-house (latrine)	2.2	4.1			
No flush, outside house (latrine)	6.4	9.5			
Cement open pit	17.6	35.3			
Earth open pit	9.8	28.5			
none	2.4	1.4			
Other	1.8	1.3			
Total	100.0	100.1			
% Sewerage estimated based on WHS03	42.5	3.9			
% Use of an improved sanitation facility	68%	34%			
% Sewerage connection	42%	4%			

China Economic, Population, Nutrition, and Health Survey, 1997, Household survey.

Annual Statistical Report on National Rural Sanitary Latrine Improvement - end 1998		
<i>Only improved categories listed</i>		
Sanitation	Urban	Rural
Septic tank latrines		24.5
Other sanitary latrine		47.1
Ventilated improved pit latrine		8.9
Double-urn latrine		12.5
Biogas latrine		7.1
TOTAL		100.1
% Use of an improved sanitation facility		
% Sewerage connection		

Only reported on improved facilities - denominator is not complete

NHSS		1998	
Sanitation	Urban	Rural	
Water flush	65.1	5.6	
Urine diversion three-in-one bioga			
three compart	3.2	1.2	
Double Urn funnel	0.3	1.4	
Other Sanitary	0.0	0.0	
Total	68.6	8.2	
Proportion of all "unsanitary latrines" considered to meet MDG/JMP definition of improved by PSS 99	9.6	40.5	
% Use of an improved sanitation facility	78%	49%	
% Sewerage connection			

National Health Service Survey, (MOH), 1998

Population Sampling Survey 1999		
Sanitation	Urban	Rural
Flush	54.0	4.3
VIP/deep-pit	12.2	17.7
Shallow-pit	19.5	67.1
3-pit/2-pit bio gas	1.9	1.9
No Latrine	7.8	4.1
Others	4.6	4.9
TOTAL	100.0	100.0
50% of shallow pit considered improved	9.8	33.6
% Sewerage estimated based on WHS03	38.4	0.8
% Use of an improved sanitation facility	78%	57%
% Sewerage connection	38%	1%

CHS		2000	
Not nationally representative			
Sanitation	Urban	Rural	
Flush, in-house	61.0	20.7	
Flush, outside house	4.4	2.5	
No flush, in-house (latrine)	2.8	3.2	
No flush, outside house (latrine)	7.2	8.0	
Cement open pit	13.1	39.9	
Earth open pit	8.2	23.0	
none	2.1	2.0	
Other	1.0	0.7	
Total	100.0	100.0	
% Sewerage estimated based on WHS03	46.4	4.5	
% Use of an improved sanitation facility	75%	34%	
% Sewerage connection	46%	5%	

China Economic, Population, Nutrition, and Health Survey 2000, Household survey.

WHS		2003	
Not nationally representative			
SANITATION	Urban	Rural	
Private domestic connection to sewage system	65.5	9.8	
Shared domestic connection to sewage system	0.2	0.1	
Private flush to septic tank	21.5	39.8	
Shared flush to septic tank	2.0	0.3	
Private pour flush latrine	0.7	0.3	
Shared pour flush latrine	2.6	0.6	
Private covered dry latrine (with privacy)	0.3	7.7	
Shared covered dry latrine (with privacy)	3.2	4.1	
Uncovered dry latrine (without privacy)	0.5	13.7	
Bucket latrine (where fresh excreta are manually removed)	2.7	9.1	
No facilities (open defecation)	0.1	8.6	
Other	0.7	6.0	
TOTAL	100.0	100.0	
Ratio of flush to sewerage	0.71	0.19	
% Use of an improved sanitation facility	96%	63%	
% Sewerage connection	66%	10%	

Source: World Health Survey, WHO, 2003.

NHSS		2003	
Sanitation	Urban	Rural	
Water flush	79.0	5.3	
Urine diversion	3.9	6.0	
three-in-one bioga	0.3	1.1	
three compart	3.3	4.1	
Double Urn funnel	0.1	4.3	
Other Sanitary	0.0	0.0	
Total	86.6	20.8	
Proportion of all "improved latrines" considered to meet MDG/JMP definition of improved based on PSS 99	4.1	34.9	
% Use of an improved sanitation facility	91%	56%	
% Sewerage connection			

National Health Service Survey, (MOH), 2003

CHS		2004	
Not nationally representative			
Sanitation	Urban	Rural	
Flush, in house	68.6	26.4	
Flush, outside house , public restroom	5.6	1.2	
No flush in house	1.3	3.4	
No flush , outside house, public restroom	4.6	7.8	
Cement openpit	12.2	38.1	
Earth openpit	4.2	19.8	
No bathroom	3.0	1.8	
Other	0.5	1.5	
Total	100.0	100.0	
% Sewerage estimated based on WHS03	52.7	5.4	
% Use of an improved sanitation facility	80%	39%	
% Sewerage connection	53%	5%	

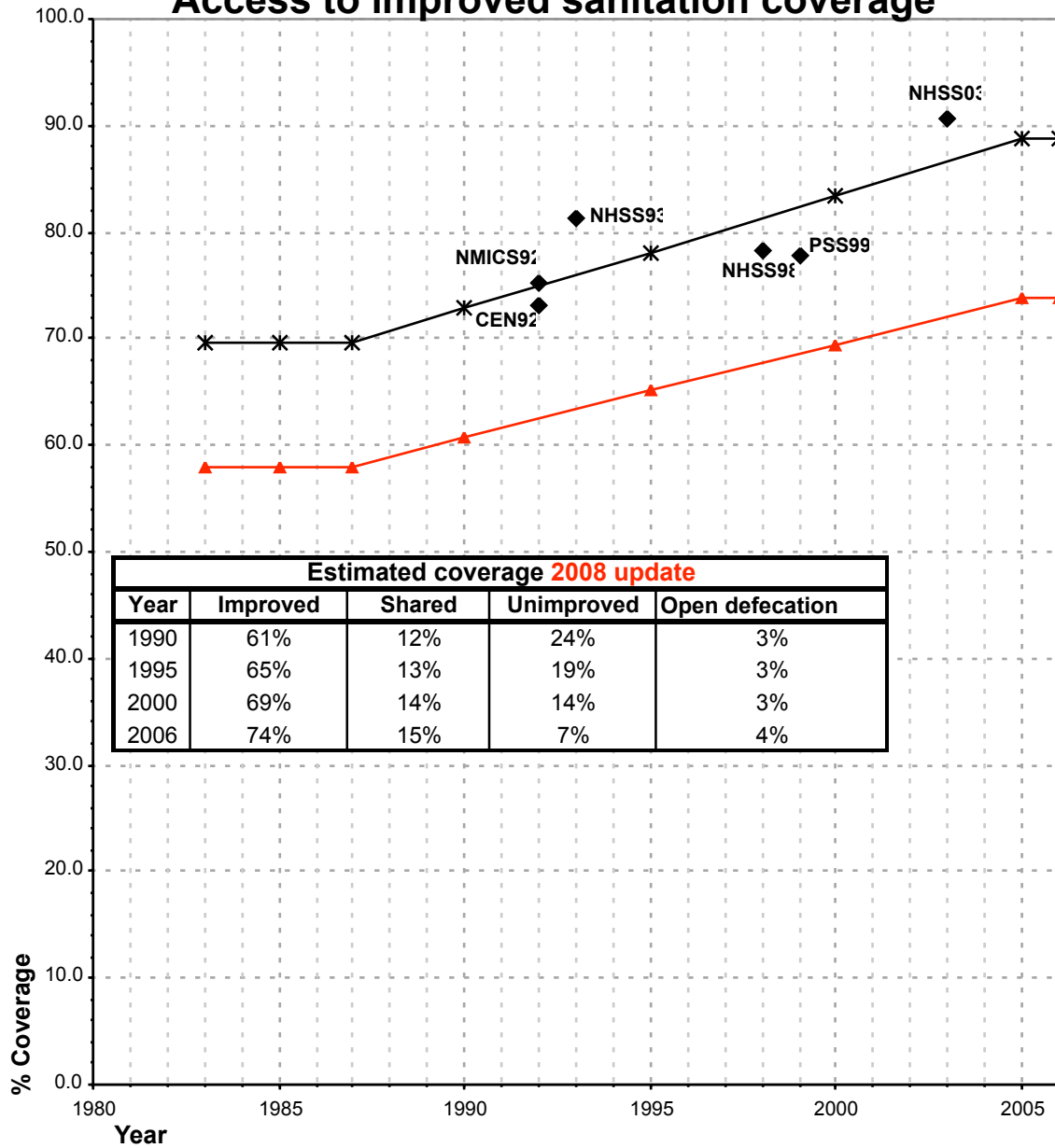
China Economic, Population, Nutrition, and Health Survey, 2004, Household

Estimate

FORM6/WHO		1999
Sanitation	Urban	Rural
sewers		
private or shared on-site system		
Total population served		342'077
Total population unserved		611'915
Total population		953'992
% Use of an improved sanitation facility		36%

China			SANITATION								OPEN DEFECATION				
			URBAN				RURAL								
			Source	Code	Year	HC		Total		HC		Total		Urban	
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 Progress (as at December 1988). WHO 1990.	WHO88	1988				100.0									
The International Drinking Water Supply and Sanitation Decade. End of Decade Review (as at December 1990). WHO1992.	WHO90	1990				100.0									
Water Supply and Sanitation Sector Monitoring Report 1993 (Sector Status as of 31 December 1991)	JMP93	1991													
	NMICS92	1992	41.3		75.2			0.3		44.2		2.3		9.8	
CENSUS 1992, from 10% micro data from IPUMS	CEN92	1992	38.4		73.0			0.5		45.2		2.9		8.8	
Water Supply and Sanitation Sector Monitoring Report - 1996. Sector Status as of 31 December 1994. WHO/UNICEF 1996.	JMP96	1994				58.0				7.0					
	CEN95	1995													
Multiple Indicator Cluster Survey, 1995 (no break down available)	MICS95	1995				74.0				7.0					
Annual Statistical Report on National Rural Water Supply - end 1998	NPH98	1998													
	CHSD98	1998													
Global Water Supply and Sanitation Assessment 2000. Water Supply and Sanitation Sector Questionnaire - 1999. (Form 6 sent to WHO)	JMP99	1999								36.0					
Population Sampling Survey 1999	PSS99	1999	40.2		77.8			0.9		57.5		7.8		4.1	
	WHS03	2003		65.5		96.1			9.8	62.7					
China Economic, Population, Nutrition, and Health Survey, 1989, Household survey.	CHS89	1989		22.9		59.7			0.9	23.9		5.4		3.3	
China Economic, Population, Nutrition, and Health Survey, 1991, Household survey.	CHS91	1991		27.7		61.4			1.6	31.6		2.1		0.9	
China Economic, Population, Nutrition, and Health Survey, 1993, Household survey.	CHS93	1993		34.9		65.8			2.1	30.3		1.3		1.3	
China Economic, Population, Nutrition, and Health Survey, 1997, Household survey.	CHS97	1997		42.5		68.4			3.9	33.6		2.4		1.4	
China Economic, Population, Nutrition, and Health Survey, 2000, Household survey.	CHS00	2000		46.4		75.4			4.5	34.4		2.1		2.0	
China Economic, Population, Nutrition, and Health Survey, 2004, Household survey.	CHS04	2004		52.7		80.0			5.4	38.8		3.0		1.8	
National Health Services Survey, MOH 1993	NHSS93	1993			81.2					46.2					
National Health Services Survey, MOH 1998	NHSS98	1998			78.2					48.7					
National Health Services Survey, MOH 2003	NHSS03	2003			90.7					55.7					

China - urban - Access to improved sanitation coverage



Improved plus shared

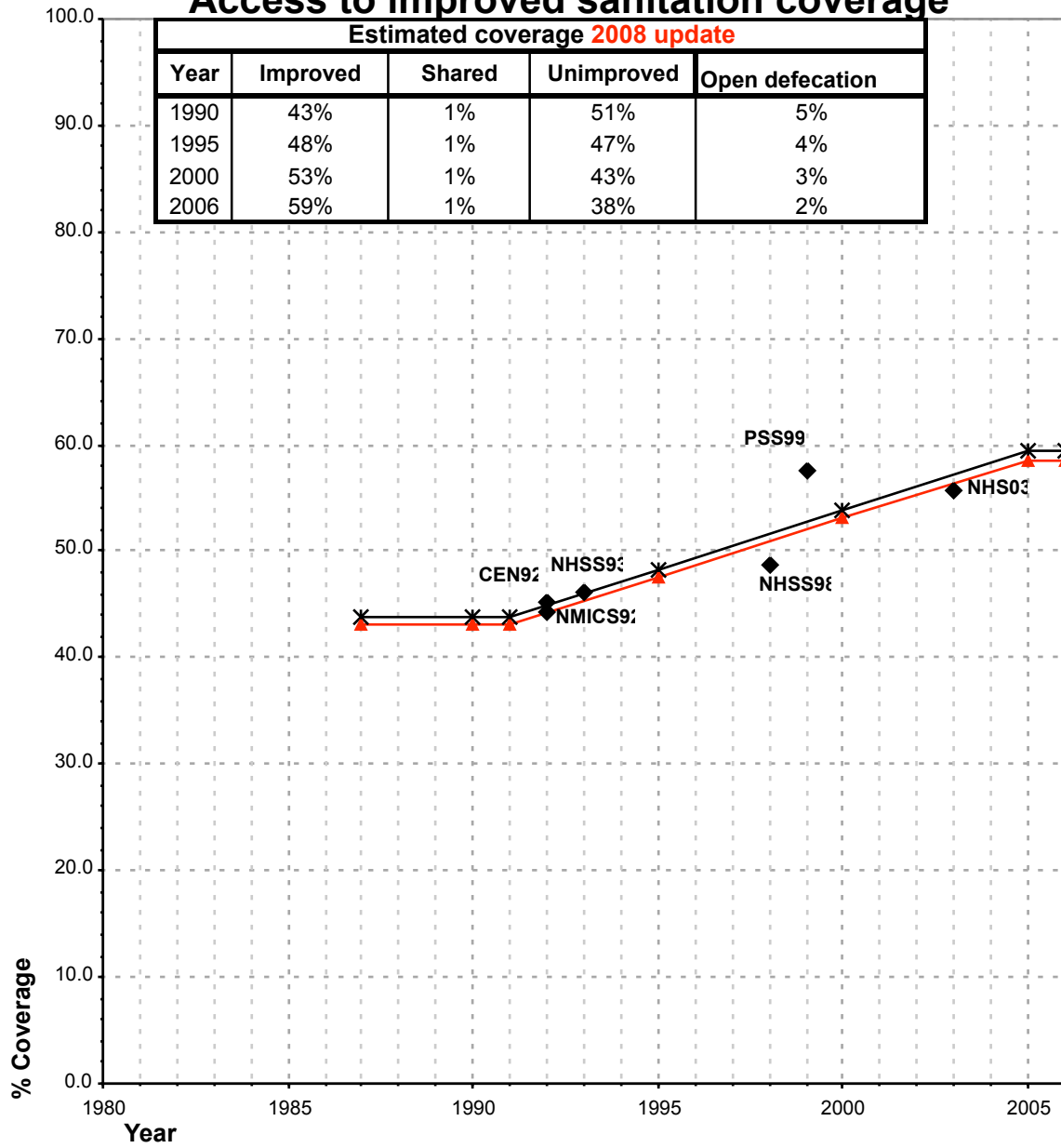
Improved

◆ Used for estimates * Estimates ▲ JMP 2008 estimate

Total access :
The China Economic, Population, Nutrition, and Health Survey (CHS) surveys are not nationally representative.

Shared facilities :
The proportion of the population using a shared improved sanitation facility is based on the C

China - rural - Access to improved sanitation coverage



Improved plus shared

Improved

◆ Used for estimates * Estimates ▲ JMP 2008 estimate

Total access :
The China Economic, Population, Nutrition, and Health Survey (CHS) surveys are not nationally representative

Shared facilities :
The proportion of the population using a shared improved sanitation facility is based on the CE