

WHO / UNICEF

Joint Monitoring Programme
for Water Supply and Sanitation

Estimates for the use of

**Improved Drinking-Water Sources
and Improved Sanitation Facilities**

Updated March 2010

childinfo.org

Access to drinking water sources		CHS89			China			Access to drinking water sources		CHS91			China						
Economic, Population, Nutrition, and Health Survey					Economic, Population, Nutrition, and Health Survey					Economic, Population, Nutrition, and Health Survey									
					1989										1991				
Original denomination	Classification	Urban	Rural	Total	Original denomination	Classification	Urban	Rural	Total	Original denomination	Classification	Urban	Rural	Total					
	Tap water	84.0	36.5			Tap water	87.1	44.2			Tap water	87.1	44.2						
	House connections	84.0	36.5			House connections	87.1	44.2			House connections	87.1	44.2						
Tap in house	Piped water into dwelling	61.0	23.5		Tap in house	Piped water into dwelling	59.5	27.7		Tap in house	Piped water into dwelling	59.5	27.7						
Tap in yard	Piped water to yard/plot	23.0	13.0		Tap in yard	Piped water to yard/plot	27.6	16.5		Tap in yard	Piped water to yard/plot	27.6	16.5						
	Public tap, standpipe					Public tap, standpipe					Public tap, standpipe								
	Other					Other					Other								
	Ground water	4.0	30.7			Ground water	6.0	34.2			Ground water	6.0	34.2						
	Protected ground water					Protected ground water					Protected ground water								
	Unprotected ground water					Unprotected ground water					Unprotected ground water								
	Protected wells or springs					Protected wells or springs					Protected wells or springs								
	Private					Private					Private								
	Public					Public					Public								
	Other					Other					Other								
	Unprotected wells or springs					Unprotected wells or springs					Unprotected wells or springs								
	Private					Private					Private								
	Public					Public					Public								
	Other					Other					Other								
	All wells	4.0	30.7			All wells	6.0	34.2			All wells	6.0	34.2						
well in yard	Private	4.0	30.7		well in yard	Private	6.0	34.2		well in yard	Private	6.0	34.2						
	Public					Public					Public								
	Other					Other					Other								
	Tubewell, borehole					Tubewell, borehole					Tubewell, borehole								
	Private					Private					Private								
	Public					Public					Public								
	Other					Other					Other								
	Traditional wells					Traditional wells					Traditional wells								
	Private					Private					Private								
	Public					Public					Public								
	Other					Other					Other								
	Protected well					Protected well					Protected well								
	Private					Private					Private								
	Public					Public					Public								
	Other					Other					Other								
	Unprotected well					Unprotected well					Unprotected well								
	Private					Private					Private								
	Public					Public					Public								
	Other					Other					Other								
	All springs					All springs					All springs								
	Private					Private					Private								
	Public					Public					Public								
	Other					Other					Other								
	Protected spring					Protected spring					Protected spring								
	Private					Private					Private								
	Public					Public					Public								
	Other					Other					Other								
	Unprotected spring					Unprotected spring					Unprotected spring								
	Private					Private					Private								
	Public					Public					Public								
	Other					Other					Other								
	Rainwater					Rainwater					Rainwater								
	Covered cistern/tank					Covered cistern/tank					Covered cistern/tank								
	Uncovered cistern/tank					Uncovered cistern/tank					Uncovered cistern/tank								
	Bottled water					Bottled water					Bottled water								
	with other improved					with other improved					with other improved								
	without other improved					without other improved					without other improved								
	Surface water					Surface water					Surface water								
	River					River					River								
	Lake					Lake					Lake								
	Dam					Dam					Dam								
	Pond					Pond					Pond								
	Stream					Stream					Stream								
	Irrigation channel					Irrigation channel					Irrigation channel								
	Other					Other					Other								
	Other improved sources					Other improved sources					Other improved sources								
	Other					Other					Other								
	Other					Other					Other								
	Other non-improved	12.0	32.8			Other non-improved	6.9	21.6			Other non-improved	6.9	21.6						
	Cart with small tank/drum					Cart with small tank/drum					Cart with small tank/drum								
	Tanker truck provided					Tanker truck provided					Tanker truck provided								
Other	Other	12.0	32.8		Other	Other	6.9	21.6		Other	Other	6.9	21.6						
	Other					Other					Other								
	DK/missing					DK/missing					DK/missing								
	Total	100.0	100.0			Total	100.0	100.0			Total	100.0	100.0						
Calculations					Calculations					Calculations									
Estimations					Estimations					Estimations									
Access to improved drinking water sources : 84% 36%					Access to improved drinking water sources : 87% 44%														
Access to house connections : 84% 36%					Access to house connections : 87% 44%														
Used for the estimates : No No					Used for the estimates : No No														
Used for the estimates : Yes Yes					Used for the estimates : Yes Yes														
Ratios	HC / Tap water	100%	100%		Ratios	HC / Tap water	100%	100%											
	Public tap / Tap water					Public tap / Tap water													
	Tubewell + protected well / All wells					Tubewell + protected well / All wells													
	Protected wells / Traditional wells					Protected wells / Traditional wells													
	Tubewell / All wells					Tubewell / All wells													
	Protected springs / All springs					Protected springs / All springs													
	Protect. well & spring / well & spring					Protect. well & spring / well & spring													
Number of people covered by the survey:					Number of people covered by the survey:														
Number of households covered by the survey:					Number of households covered by the survey:														
Total population:					Total population:														
Comments	Not nationally representative				Comments	Not nationally representative													

Access to drinking water sources		NMICS92			China			Access to drinking water sources		CEN91			China		
National Child Survey (Multiple Indicator Cluster Survey)					National census					10% micro dataset from IPUMS					
National Bureau of Statistics					1992					1991					
Original denomination	Classification	Urban	Rural	Total	Original denomination	Classification	Urban	Rural	Total						
Tap water	Tap water	94.2	16.9	38.6	Tap water	Tap water	87.7	19.0							
	House connections					House connections									
	Piped water into dwelling					Piped water into dwelling									
	Piped water to yard/plot					Piped water to yard/plot									
	Public tap, standpipe					Public tap, standpipe									
	Other					Other									
	Ground water	5.3	71.5	53.0		Ground water	10.6	70.0							
	Protected ground water	4.6	43.9	32.9		Protected ground water	8.0	42.9							
	Unprotected ground water	0.7	27.6	20.1		Unprotected ground water	2.6	27.1							
	Protected wells or springs	4.6	43.9	32.9		Protected wells or springs	8.0	42.9	0.0						
	Private					Private									
	Public					Public									
	Other					Other									
	Unprotected wells or springs	0.7	27.6	20.1	Shallow-well or spring water	Unprotected wells or springs	2.6	27.1							
	Private					Private									
	Public					Public									
	Other					Other									
	All wells	5.3	71.5	53.0		All wells	8.0	42.9							
	Private					Private									
	Public					Public									
	Other					Other									
Deep well	Tubewell, borehole	4.6	43.9	32.9	Deep-well water	Tubewell, borehole	8.0	42.9							
	Private					Private									
	Public					Public									
	Other					Other									
	Traditional wells	0.7	27.6	20.1		Traditional wells									
	Private					Private									
	Public					Public									
	Other					Other									
	Protected well					Protected well									
	Private					Private									
	Public					Public									
	Other					Other									
	Unprotected well	0.7	27.6	20.1		Unprotected well									
	Private					Private									
	Public					Public									
	Other					Other									
	All springs					All springs									
	Private					Private									
	Public					Public									
	Other					Other									
	Protected spring					Protected spring									
	Private					Private									
	Public					Public									
	Other					Other									
	Unprotected spring					Unprotected spring									
	Private					Private									
	Public					Public									
	Other					Other									
	Rainwater					Rainwater									
	Covered cistern/tank					Covered cistern/tank									
	Uncovered cistern/tank					Uncovered cistern/tank									
	Bottled water					Bottled water									
	with other improved					with other improved									
	without other improved					without other improved									
	Surface water	0.2	10.0	7.2		Surface water	7.6	9.5							
River or lake water	River	0.1	5.9	4.2	River or lake	River	1.1	5.5							
	Lake					Lake									
	Dam					Dam									
Pond water	Pond	0.1	4.1	3.0	Pond	Pond	0.5	4.0							
	Stream					Stream									
	Irrigation channel					Irrigation channel									
	Other					Other									
	Other improved sources					Other improved sources									
	Other					Other									
	Other					Other									
	Other non-improved	0.3	1.6	1.3		Other non-improved	0.1	1.5							
	Cart with small tank/drum					Cart with small tank/drum									
	Tanker truck provided					Tanker truck provided									
Others	Other	0.3	1.6	1.3	Other	Other	0.1	1.5							
	Other					Other									
	DK/missing					DK/missing									
	Total	100.0	100.0	100.1		Total	100.0	100.0							
Calculations					Calculations										
Estimations					Estimations										
	HC, based on CHS91	94.2	16.9			HC, based on CHS91	87.7	19.0							
Access to improved drinking water sources :		99%	61%	72%	Access to improved drinking water sources :		96%	62%							
Access to house connections :		94%	17%		Access to house connections :		88%	19%							
Used for the estimates :		Yes	Yes		Used for the estimates :		Yes	Yes							
Used for the estimates :		No	No		Used for the estimates :		No	No							
Ratios	HC / Tap water				Ratios	HC / Tap water									
	Public tap / Tap water					Public tap / Tap water									
	Tubewell + protected well / All wells					Tubewell + protected well / All wells									
	Protected wells / Traditional wells					Protected wells / Traditional wells									
	Tubewell / All wells	87%	61%			Tubewell / All wells	100%	100%							
	Protected springs / All springs					Protected springs / All springs									
	Protect. well & spring / well & spring	87%	61%			Protect. well & spring / well & spring	75%	61%							
	Number of people covered by the survey:					Number of people covered by the survey:									
	Number of households covered by the survey:					Number of households covered by the survey:									
	Total population:					Total population:									
Comments					Comments										

Access to drinking water sources		NHSS93			China			Access to drinking water sources		CHS93			China						
National Health Services Survey					MoH					Economic, Population, Nutrition, and Health Survey					Household survey				
Original denomination		Classification			Urban	Rural	Total	Original denomination		Classification			Urban	Rural	Total				
Tap water	Tap water	House connections			94.4	21.8		Tap water	Tap water	House connections			90.0	49.8					
		Piped water into dwelling								Piped water into dwelling			64.8	33.1					
		Piped water to yard/plot								Piped water to yard/plot			25.3	16.7					
		Public tap, standpipe								Public tap, standpipe									
		Other								Other									
		Ground water			2.9	38.4				Ground water			7.3	34.1					
		Protected ground water			2.9	38.4				Protected ground water									
		Unprotected ground water								Unprotected ground water									
		Protected wells or springs			2.9	38.4	0.0			Protected wells or springs									
		Private								Private									
		Public								Public									
		Other								Other									
		Unprotected wells or springs								Unprotected wells or springs									
		Private								Private									
		Public								Public									
		Other								Other									
		All wells			2.6	28.4				All wells			7.3	34.1					
		Private						well in yard		Private			7.3	34.1					
		Public								Public									
		Other								Other									
Deep well		Tubewell, borehole								Tubewell, borehole									
		Private								Private									
		Public								Public									
		Other								Other									
		Traditional wells			2.6	28.4				Traditional wells									
		Private								Private									
		Public								Public									
		Other								Other									
Hand pump		Protected well			2.6	28.4				Protected well									
		Private								Private									
		Public								Public									
		Other								Other									
		Unprotected well								Unprotected well									
		Private								Private									
		Public								Public									
		Other								Other									
		All springs			0.3	10.0				All springs									
		Private								Private									
		Public								Public									
		Other								Other									
Spring Water		Protected spring			0.3	10.0				Protected spring									
		Private								Private									
		Public								Public									
		Other								Other									
		Unprotected spring								Unprotected spring									
		Private								Private									
		Public								Public									
		Other								Other									
		Rainwater								Rainwater									
		Covered cistern/tank								Covered cistern/tank									
		Uncovered cistern/tank								Uncovered cistern/tank									
		Bottled water								Bottled water									
		with other improved								with other improved									
		without other improved								without other improved									
		Surface water								Surface water									
		River								River									
		Lake								Lake									
		Dam								Dam									
		Pond								Pond									
		Stream								Stream									
		Irrigation channel								Irrigation channel									
		Other								Other									
		Other improved sources								Other improved sources									
		Other								Other									
		Other								Other									
Unimproved sources		Other non-improved			2.7	39.8				Other non-improved			2.7	16.0					
		Cart with small tank/drum								Cart with small tank/drum									
		Tanker truck provided								Tanker truck provided									
		Other						Other		Other			2.7	16.0					
		Other								Other									
		DK/missing								DK/missing									
		Total			100.0	100.0				Total			100.0	99.9					
Calculations																			
Estimations																			
		HC, based on CHS91			94.4	21.8													
Access to improved drinking water sources :					97%	60%		Access to improved drinking water sources :					90%	50%					
Access to house connections :					94%	22%		Access to house connections :					90%	50%					
Used for the estimates :					Yes	Yes		Used for the estimates :					No	No					
Used for the estimates :					No	No		Used for the estimates :					Yes	Yes					
Ratios	HC / Tap water							Ratios	HC / Tap water				100%	100%					
	Public tap / Tap water								Public tap / Tap water										
	Tubewell + protected well / All wells								Tubewell + protected well / All wells										
	Protected wells / Traditional wells				100%	100%			Protected wells / Traditional wells										
	Tubewell / All wells								Tubewell / All wells										
	Protected springs / All springs				100%	100%			Protected springs / All springs										
Protect. well & spring / well & spring							Protect. well & spring / well & spring												
Deep well / Tap water + Deep well				3%	57%														
Number of people covered by the survey:								Number of people covered by the survey:											
Number of households covered by the survey:								Number of households covered by the survey:											
Total population:								Total population:											
Comments								Comments	Not nationally representative										

Access to drinking water sources		MICS95			China			Access to drinking water sources		XXX			China		
Multiple Indicator Cluster Survey										<i>Incomplete data</i>					
National Bureau of Statistics					1995					1995					
Original denomination	Classification	Urban	Rural	Total	Original denomination	Classification	Urban	Rural	Total	Original denomination	Classification	Urban	Rural	Total	
Tap water + Deep well	Tap water	97.1	55.6	67.0	Tap water	Tap water	94.0	55.7							
	House connections					House connections									
	Piped water into dwelling					Piped water into dwelling									
	Piped water to yard/plot					Piped water to yard/plot									
	Public tap, standpipe					Public tap, standpipe									
	Other					Other									
	Ground water					Ground water						26.3			
	Protected ground water					Protected ground water						26.3			
	Unprotected ground water					Unprotected ground water									
	Protected wells or springs					Protected wells or springs	0.0	26.3	0.0						
	Private					Private									
	Public					Public									
	Other					Other									
	Unprotected wells or springs					Unprotected wells or springs									
	Private					Private									
	Public					Public									
	Other					Other									
	All wells					All wells						26.3			
	Private					Private									
	Public					Public									
	Other					Other									
	Tubewell, borehole					Tubewell, borehole									
	Private					Private									
	Public					Public									
	Other					Other									
	Traditional wells					Traditional wells						26.3			
	Private					Private									
	Public					Public									
	Other					Other									
	Protected well					Protected well						26.3			
	Private					Private									
	Public					Public									
	Other					Other									
	Unprotected well					Unprotected well									
	Private					Private									
	Public					Public									
	Other					Other									
	All springs					All springs									
	Private					Private									
	Public					Public									
	Other					Other									
	Protected spring					Protected spring									
	Private					Private									
	Public					Public									
	Other					Other									
	Unprotected spring					Unprotected spring									
	Private					Private									
	Public					Public									
	Other					Other									
	Rainwater					Rainwater						0.8			
	Covered cistern/tank					Covered cistern/tank						0.8			
	Uncovered cistern/tank					Uncovered cistern/tank									
	Bottled water					Bottled water									
	with other improved					with other improved									
	without other improved					without other improved									
	Surface water					Surface water									
	River					River									
	Lake					Lake									
	Dam					Dam									
	Pond					Pond									
	Stream					Stream									
	Irrigation channel					Irrigation channel									
	Other					Other									
	Other improved sources					Other improved sources									
	Other					Other									
	Other					Other									
Unimproved sources	Other non-improved	2.9	44.4		Others	Other non-improved						17.2			
	Cart with small tank/drum					Cart with small tank/drum									
	Tanker truck provided					Tanker truck provided									
	Other					Other									
	Other					Other									
	DK/missing					DK/missing									
	Total	100.0	100.0	67.0		Total	94.0	100.0							
Calculations	Deep well, based on NHSS93 & NHSS98	2.5	30.7			Calculations									
Estimations						Estimations									
	HC, based on CHS97	94.6	24.9												
Access to improved drinking water sources :		97%	56%	67%	Access to improved drinking water sources :		94%	83%							
Access to house connections :		95%	25%		Access to house connections :										
Used for the estimates :		Yes	Yes		Used for the estimates :		No	No							
Used for the estimates :		No	No		Used for the estimates :		No	No							
Ratios	HC / Tap water					Ratios	HC / Tap water								
	Public tap / Tap water					Public tap / Tap water									
	Tubewell + protected well / All wells					Tubewell + protected well / All wells						100%			
	Protected wells / Traditional wells					Protected wells / Traditional wells									
	Tubewell / All wells					Tubewell / All wells									
	Protected springs / All springs					Protected springs / All springs									
	Protect. well & spring / well & spring					Protect. well & spring / well & spring									
Number of people covered by the survey :					Number of people covered by the survey :		184900	863931							
Number of households covered by the survey :					Number of households covered by the survey :										
Total population :					Total population :										
Comments					Comments	DEF: Private Household Connection and shared tap connection. Tap water seems to be high with 50% in rural areas. Possible explanation is that a large number of (non-capital counties) townships have been included in									

Access to drinking water sources		JMP99			China			Access to drinking water sources		CHS00			China						
Global Water Supply and Sanitation Assessment 2000.					Economic, Population, Nutrition, and Health Survey														
Water Supply and Sanitation Sector Questionnaire - 1999. Form 6 sent to WHO.					1999					Household survey					2000				
Original denomination	Classification	Urban	Rural	Total	Original denomination	Classification	Urban	Rural	Total	Original denomination	Classification	Urban	Rural	Total					
Population served with household connection.	Tap water		50.4			Tap water	90.3	60.0			Tap water	90.3	60.0						
	House connections		50.4			House connections	90.3	60.0			House connections	90.3	60.0						
	Piped water into dwelling				Tap in house	Piped water into dwelling	78.1	41.9			Piped water into dwelling	78.1	41.9						
	Piped water to yard/plot				Tap in yard	Piped water to yard/plot	12.1	18.1			Piped water to yard/plot	12.1	18.1						
	Public tap, standpipe					Public tap, standpipe					Public tap, standpipe								
	Other					Other					Other								
Population without household connection but with reasonable access to a public.	Ground water	96.0	24.6			Ground water	5.9	34.2			Ground water	5.9	34.2						
	Protected ground water	96.0	24.6			Protected ground water					Protected ground water								
	Unprotected ground water					Unprotected ground water					Unprotected ground water								
	Protected wells or springs					Protected wells or springs					Protected wells or springs								
	Private					Private					Private								
	Public					Public					Public								
	Other					Other					Other								
	Unprotected wells or springs					Unprotected wells or springs					Unprotected wells or springs								
	Private					Private					Private								
	Public					Public					Public								
	Other					Other					Other								
	All wells				well in yard	All wells	5.9	34.2			All wells	5.9	34.2						
	Private					Private	5.9	34.2			Private	5.9	34.2						
	Public					Public					Public								
	Other					Other					Other								
	Tubewell, borehole					Tubewell, borehole					Tubewell, borehole								
	Private					Private					Private								
	Public					Public					Public								
	Other					Other					Other								
	Traditional wells					Traditional wells					Traditional wells								
	Private					Private					Private								
	Public					Public					Public								
	Other					Other					Other								
	Protected well					Protected well					Protected well								
	Private					Private					Private								
	Public					Public					Public								
	Other					Other					Other								
	Unprotected well					Unprotected well					Unprotected well								
	Private					Private					Private								
	Public					Public					Public								
	Other					Other					Other								
	All springs					All springs					All springs								
	Private					Private					Private								
	Public					Public					Public								
	Other					Other					Other								
	Protected spring					Protected spring					Protected spring								
	Private					Private					Private								
	Public					Public					Public								
	Other					Other					Other								
	Unprotected spring					Unprotected spring					Unprotected spring								
	Private					Private					Private								
	Public					Public					Public								
	Other					Other					Other								
	Rainwater					Rainwater					Rainwater								
	Covered cistern/tank					Covered cistern/tank					Covered cistern/tank								
	Uncovered cistern/tank					Uncovered cistern/tank					Uncovered cistern/tank								
	Bottled water					Bottled water					Bottled water								
	with other improved					with other improved					with other improved								
	without other improved					without other improved					without other improved								
	Surface water					Surface water					Surface water								
	River					River					River								
	Lake					Lake					Lake								
	Dam					Dam					Dam								
	Pond					Pond					Pond								
	Stream					Stream					Stream								
	Irrigation channel					Irrigation channel					Irrigation channel								
	Other					Other					Other								
	Other improved sources					Other improved sources					Other improved sources								
	Other					Other					Other								
	Other					Other					Other								
Total population unserved	Other non-improved		9.4			Other non-improved	3.8	5.8			Other non-improved	3.8	5.8						
	Cart with small tank/drum					Cart with small tank/drum					Cart with small tank/drum								
	Tanker truck provided					Tanker truck provided					Tanker truck provided								
	Other				Other	Other	3.8	5.8			Other	3.8	5.8						
	Other					Other					Other								
	DK/missing					DK/missing					DK/missing								
	Total	96.0	84.4			Total	100.0	100.0			Total	100.0	100.0						
Calculations						Calculations					Calculations								
Estimations						Estimations					Estimations								
Access to improved drinking water sources :		96%	75%		Access to improved drinking water sources :		90%	60%		Access to improved drinking water sources :		90%	60%						
Access to house connections :		50%			Access to house connections :		90%	60%		Access to house connections :		90%	60%						
Used for the estimates :		No	No		Used for the estimates :		No	No		Used for the estimates :		No	No						
Used for the estimates :		No	No		Used for the estimates :		Yes	Yes		Used for the estimates :		Yes	Yes						
Ratios	HC / Tap water		100%		Ratios	HC / Tap water	100%	100%		Ratios	HC / Tap water	100%	100%						
	Public tap / Tap water					Public tap / Tap water					Public tap / Tap water								
	Tubewell + protected well / All wells					Tubewell + protected well / All wells					Tubewell + protected well / All wells								
	Protected wells / Traditional wells					Protected wells / Traditional wells					Protected wells / Traditional wells								
	Tubewell / All wells					Tubewell / All wells					Tubewell / All wells								
	Protected springs / All springs					Protected springs / All springs					Protected springs / All springs								
	Protect. well & spring / well & spring					Protect. well & spring / well & spring					Protect. well & spring / well & spring								
Number of people covered by the survey:		198618	953992		Number of people covered by the survey:					Number of people covered by the survey:									
Number of households covered by the survey:					Number of households covered by the survey:					Number of households covered by the survey:									
Total population:					Total population:					Total population:									
Comments					Comments	Not nationally representative													

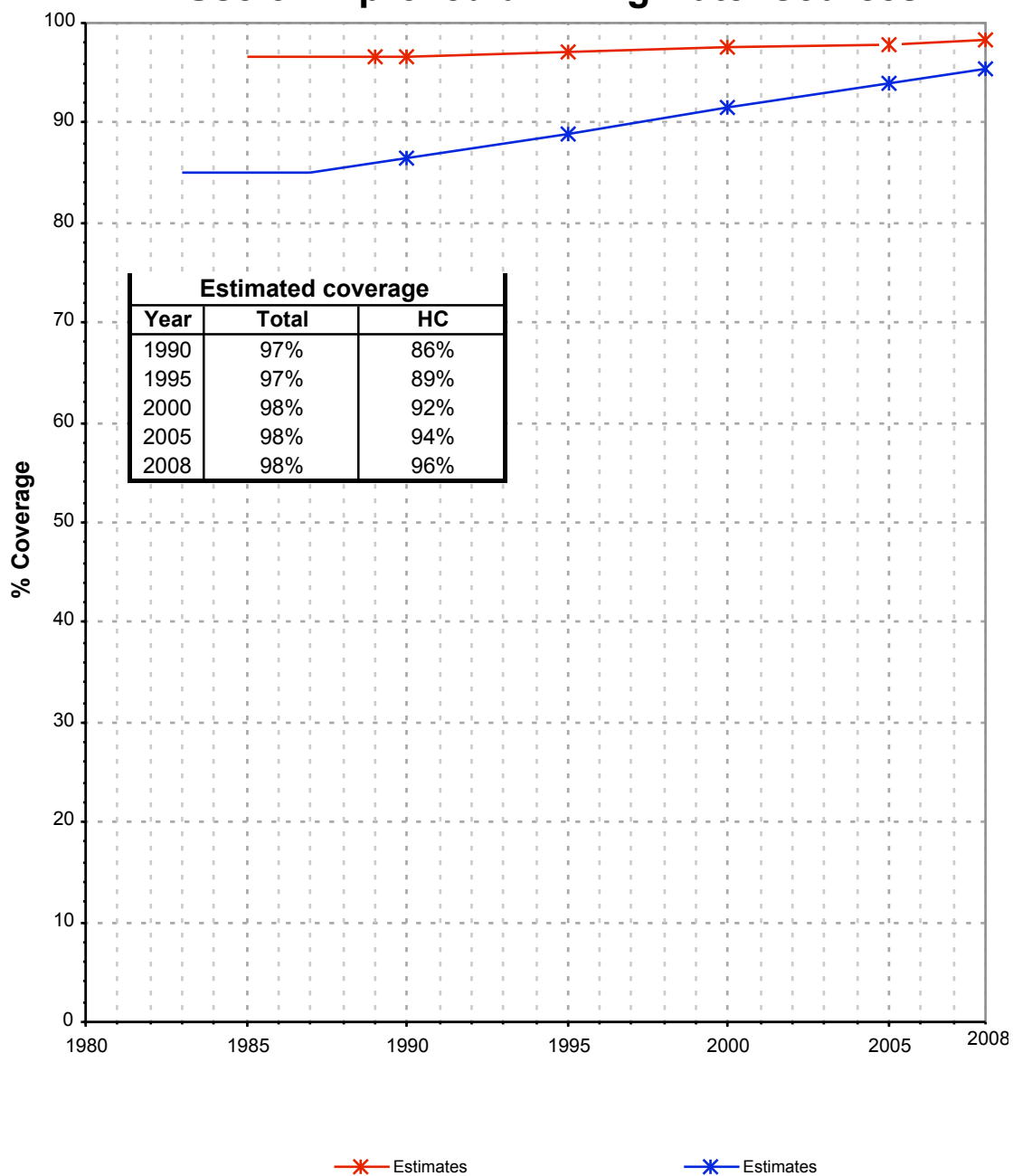
Access to drinking water sources		WHS03			China			Access to drinking water sources		NHSS03			China		
World Health Survey					2003			National Health Service Survey					2003		
					MOH										
Original denomination	Classification	Urban	Rural	Total	Original denomination	Classification	Urban	Rural	Total	Original denomination	Classification	Urban	Rural	Total	
Piped water through house connection or yard	Tap water	98.9	61.1		Tape water	Tap water	95.8	34.0							
	House connections					House connections									
	Piped water into dwelling					Piped water into dwelling									
	Piped water to yard/plot					Piped water to yard/plot									
Public standpipe	Public tap, standpipe	0.3	0.4			Public tap, standpipe									
	Other					Other									
	Ground water	0.6	29.1			Ground water	2.6	37.4							
	Protected ground water	0.6	19.3			Protected ground water	2.6	37.4							
	Unprotected ground water		9.8			Unprotected ground water									
Protected dug well or protected spring	Protected wells or springs	0.3	11.7	0.0		Protected wells or springs	2.6	37.4	0.0						
	Private					Private									
	Public					Public									
	Other					Other									
Unprotected dug well or spring	Unprotected wells or springs	0.0	9.8			Unprotected wells or springs									
	Private					Private									
	Public					Public									
	Other					Other									
	All wells	0.2	7.6			All wells	2.3	34.0							
	Private					Private									
	Public					Public									
	Other					Other									
Protected tube well or bore hole	Tubewell, borehole	0.2	7.6			Tubewell, borehole									
	Private					Private									
	Public					Public									
	Other					Other									
	Traditional wells					Traditional wells	2.3	34.0							
	Private					Private									
	Public					Public									
	Other					Other									
	Protected well					Protected well	2.3	34.0							
	Private					Private									
	Public					Public									
	Other					Other									
	Unprotected well					Unprotected well									
	Private					Private									
	Public					Public									
	Other					Other									
	All springs					All springs	0.3	3.4							
	Private					Private									
	Public					Public									
	Other					Other									
	Protected spring					Protected spring	0.3	3.4							
	Private					Private									
	Public					Public									
	Other					Other									
	Unprotected spring					Unprotected spring									
	Private					Private									
	Public					Public									
	Other					Other									
	Rainwater	0.0	5.1			Rainwater									
Rainwater (into tank or cistern)	Covered cistern/tank	0.0	5.1			Covered cistern/tank									
	Uncovered cistern/tank					Uncovered cistern/tank									
	Bottled water					Bottled water									
	with other improved					with other improved									
	without other improved					without other improved									
Water taken directly from pond-water or stream	Surface water	0.0	4.7			Surface water									
	River					River									
	Lake					Lake									
	Dam					Dam									
	Pond					Pond									
	Stream					Stream									
	Irrigation channel					Irrigation channel									
	Other					Other									
	Other improved sources					Other improved sources	0.8	8.8							
	Other					Other									
	Other					Other									
	Other non-improved	0.5	0.0			Other non-improved	0.8	19.8							
	Cart with small tank/drum					Cart with small tank/drum									
Tanker-truck, vendor	Tanker truck provided	0.5	0.0			Tanker truck provided									
	Other					Other									
	Other					Other									
	DK/missing					DK/missing									
	Total	100.0	100.0			Total	100.0	100.0							
Calculations						Wells / Wells & Springs	0.88	0.91							
						Springs / Wells & Springs	0.12	0.09							
Estimations															
						HC, based on CHS00	95.8	34.0							
Access to improved drinking water sources : 100%					Access to improved drinking water sources : 99%					Access to improved drinking water sources : 80%					
Access to house connections : 99%					Access to house connections : 96%					Access to house connections : 34%					
Used for the estimates : No					Used for the estimates : Yes					Used for the estimates : Yes					
Used for the estimates : No					Used for the estimates : No					Used for the estimates : No					
Ratios	HC / Tap water	100%	99%			HC / Tap water									
	Public tap / Tap water	0%	1%			Public tap / Tap water									
	Tubewell + protected well / All wells					Tubewell + protected well / All wells									
	Protected wells / Traditional wells					Protected wells / Traditional wells	100%	100%							
	Tubewell / All wells	100%	100%			Tubewell / All wells									
	Protected springs / All springs					Protected springs / All springs	100%	100%							
	Protect. well & spring / well & spring	100%	55%			Protect. well & spring / well & spring									
Number of people covered by the survey:					Number of people covered by the survey:					Number of people covered by the survey:					
Number of households covered by the survey:					Number of households covered by the survey:					Number of households covered by the survey:					
Total population:					Total population:					Total population:					
Comments	Not nationally representative				Comments	Other improved has been distributed proportionally between Wells and Springs.									

Access to drinking water sources		CHS04			China			Access to drinking water sources		AC06			China						
Economic, Population, Nutrition, and Health Survey					Agriculture Census														
Household survey					2004					National Statistical Office					2006				
Original denomination	Classification	Urban	Rural	Total	Original denomination	Classification	Urban	Rural	Total										
	Tap water	92.9	64.5		Tap water	Tap water			48.6										
	House connections	92.9	64.5			House connections													
Tap in house	Piped water into dwelling	62.7	47.0			Piped water into dwelling													
Tap in yard	Piped water to yard/plot	10.2	17.4			Piped water to yard/plot													
	Public tap, standpipe					Public tap, standpipe													
	Other					Other													
	Ground water	4.8	30.7			Ground water			44.1										
	Protected ground water				Protected ground water	Protected ground water			22.1										
	Unprotected ground water				Unprotected ground water	Unprotected ground water			22.0										
	Protected wells or springs					Protected wells or springs													
	Private					Private													
	Public					Public													
	Other					Other													
	Unprotected wells or springs					Unprotected wells or springs													
	Private					Private													
	Public					Public													
	Other					Other													
	All wells	4.8	30.7			All wells													
	Private	4.8	30.7			Private													
	Public					Public													
	Other					Other													
	Tubewell, borehole					Tubewell, borehole													
	Private					Private													
	Public					Public													
	Other					Other													
	Traditional wells					Traditional wells													
	Private					Private													
	Public					Public													
	Other					Other													
	Protected well					Protected well													
	Private					Private													
	Public					Public													
	Other					Other													
	Unprotected well					Unprotected well													
	Private					Private													
	Public					Public													
	Other					Other													
	All springs					All springs													
	Private					Private													
	Public					Public													
	Other					Other													
	Protected spring					Protected spring													
	Private					Private													
	Public					Public													
	Other					Other													
	Unprotected spring					Unprotected spring													
	Private					Private													
	Public					Public													
	Other					Other													
	Rainwater				Rainwater	Rainwater			1.4										
	Covered cistern/tank					Covered cistern/tank			1.4										
	Uncovered cistern/tank					Uncovered cistern/tank													
	Bottled water					Bottled water													
	with other improved					with other improved													
	without other improved					without other improved													
	Surface water				River, lake or pond	Surface water			4.2										
	River					River													
	Lake					Lake													
	Dam					Dam													
	Pond					Pond													
	Stream					Stream													
	Irrigation channel					Irrigation channel													
	Other					Other													
	Other improved sources				Other water + (treated water-piped water)	Other improved sources			1.7										
	Other					Other			1.7										
	Other non-improved	2.4	4.8			Other non-improved													
	Cart with small tank/drum					Cart with small tank/drum													
	Tanker truck provided					Tanker truck provided													
	Other	2.4	4.8			Other													
	Other					Other													
	DK/missing					DK/missing													
	Total	100.0	100.0			Total			100.0										
Calculations					Calculations														
Estimations					Estimations														
Access to improved drinking water sources :		93%	64%		Access to improved drinking water sources :				74%										
Access to house connections :		93%	64%		Access to house connections :														
Used for the estimates :		No	No		Used for the estimates :		No	Yes											
Used for the estimates :		Yes	Yes		Used for the estimates :		No	No											
Ratios	HC / Tap water	100%	100%		Ratios	HC / Tap water													
	Public tap / Tap water					Public tap / Tap water													
	Tubewell + protected well / All wells					Tubewell + protected well / All wells													
	Protected wells / Traditional wells					Protected wells / Traditional wells													
	Tubewell / All wells					Tubewell / All wells													
	Protected springs / All springs					Protected springs / All springs													
	Protect. well & spring / well & spring					Protect. well & spring / well & spring													
	Number of people covered by the survey:					Number of people covered by the survey:													
	Number of households covered by the survey:					Number of households covered by the survey:													
	Total population:					Total population:													
Comments	Not nationally representative				Comments														

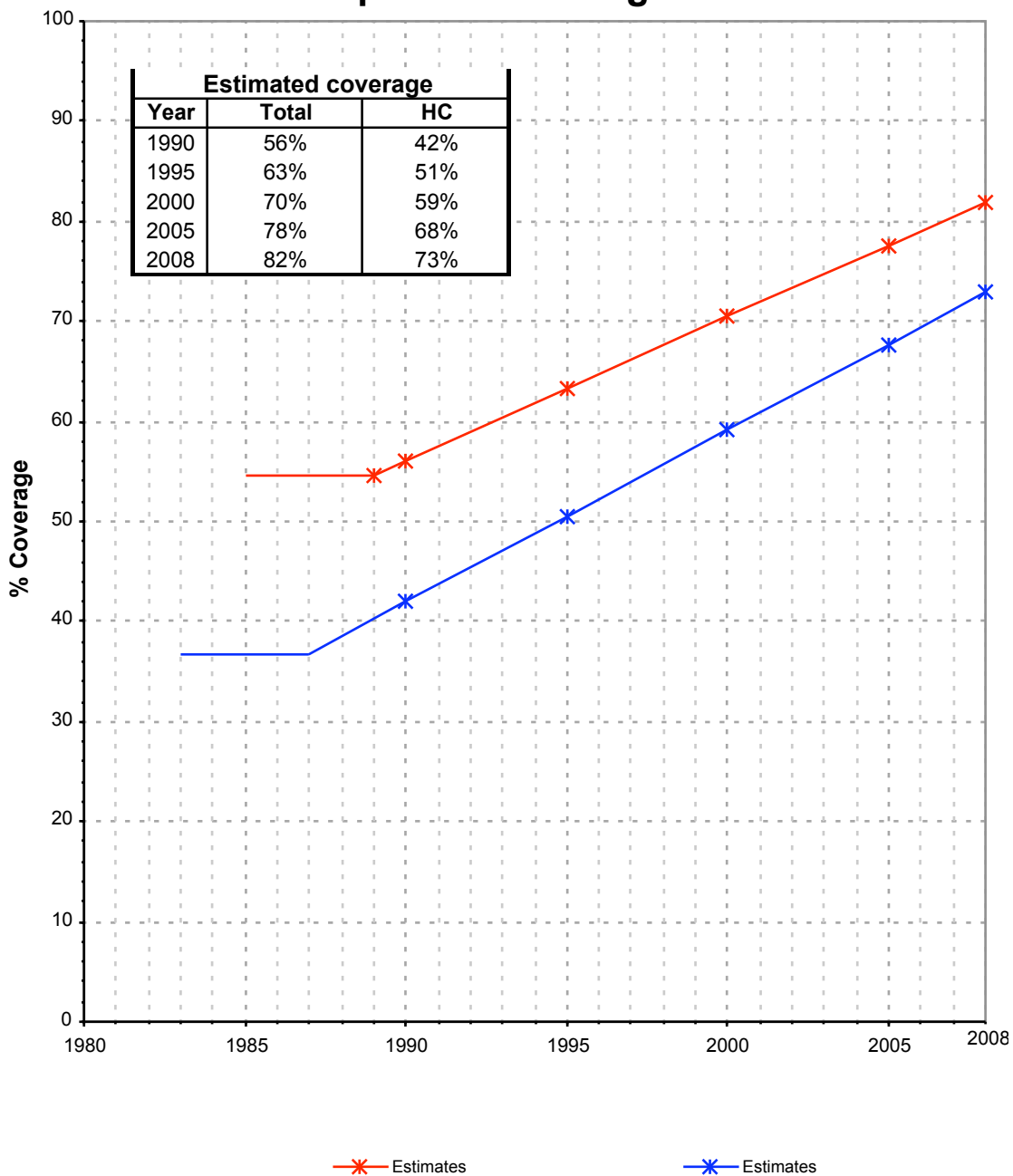
Access to drinking water sources		CHS06			China			Access to drinking water sources		NHSS08			China						
Economic, Population, Nutrition, and Health Survey					National Health Service Survey														
Household survey					2006					MOH					2008				
Original denomination	Classification	Urban	Rural	Total	Original denomination	Classification	Urban	Rural	Total	Original denomination	Classification	Urban	Rural	Total					
	Tap water	94.6	68.6		Piped water	Tap water	93.2	41.9	57.2		Tap water								
	House connections	94.6	68.6			House connections					House connections								
Tap in house	Piped water into dwelling	86.1	49.6			Piped water into dwelling					Piped water into dwelling								
Tap in yard	Piped water to yard/plot	8.5	19.0			Piped water to yard/plot					Piped water to yard/plot								
	Public tap, standpipe					Public tap, standpipe					Public tap, standpipe								
	Other					Other					Other								
	Ground water	4.1	29.1			Ground water	3.6	51.3	37.0		Ground water								
	Protected ground water					Protected ground water	2.1	41.9	30.0		Protected ground water								
	Unprotected ground water					Unprotected ground water	1.5	9.4	7.0		Unprotected ground water								
	Protected wells or springs					Protected wells or springs	2.1	41.9	30.0		Protected wells or springs								
	Private					Private					Private								
	Public					Public					Public								
	Other					Other					Other								
	Unprotected wells or springs					Unprotected wells or springs	1.5	9.4	7.0		Unprotected wells or springs								
	Private					Private					Private								
	Public					Public					Public								
	Other					Other					Other								
	All wells	4.1	29.1			All wells	2.0	43.3	31.0		All wells								
well in yard	Private	4.1	29.1			Private					Private								
	Public					Public					Public								
	Other					Other					Other								
	Tubewell, borehole					Hand pump well					Tubewell, borehole	1.4	26.3	18.9					
	Private					Private					Private								
	Public					Public					Public								
	Other					Other					Other								
	Traditional wells					Traditional wells	0.6	17.0	12.1		Traditional wells								
	Private					Private					Private								
	Public					Public					Public								
	Other					Other					Other								
	Protected well					Protected well	0.3	11.7	8.3		Protected well								
	Private					Private					Private								
	Public					Public					Public								
	Other					Other					Other								
	Unprotected well					Unprotected well	0.3	5.3	3.8		Unprotected well								
	Private					Private					Private								
	Public					Public					Public								
	Other					Other					Other								
	All springs					All springs	1.6	8.0	6.0		All springs								
	Private					Private					Private								
	Public					Public					Public								
	Other					Other					Other								
	Protected spring					Protected spring	0.4	3.9	2.8		Protected spring								
	Private					Private					Private								
	Public					Public					Public								
	Other					Other					Other								
	Unprotected spring					Unprotected spring	1.2	4.1	3.2		Unprotected spring								
	Private					Private					Private								
	Public					Public					Public								
	Other					Other					Other								
	Rainwater					Rainwater	0.0	1.5	1.0		Rainwater								
	Covered cistern/tank					Rainwater collection	0.0	1.5	1.0		Covered cistern/tank								
	Uncovered cistern/tank					Uncovered cistern/tank					Uncovered cistern/tank								
	Bottled water					Bottled water	3.0	0.6	1.4		Bottled water								
	with other improved					Bottled water with improved	3.0	0.5	1.3		with other improved								
	without other improved					Bottled water without improved	0.0	0.1	0.1		without other improved								
	Surface water					Surface water	0.2	2.8	2.1		Surface water								
	River					Surface water					River								
	Lake					Lake					Lake								
	Dam					Dam					Dam								
	Pond					Pond					Pond								
	Stream					Stream					Stream								
	Irrigation channel					Irrigation channel					Irrigation channel								
	Other					Other					Other								
	Other improved sources					Other improved sources					Other improved sources								
	Other					Other					Other								
	Other					Other					Other								
	Other non-improved	1.3	2.4			Other non-improved	0.1	1.8	1.3		Other non-improved								
	Cart with small tank/drum					Cart with small tank/drum					Cart with small tank/drum								
	Tanker truck provided					Vehicle tankering/handcart tankering	0.0	0.4	0.3		Tanker truck provided								
	Other	1.3	2.4			Other	0.1	1.4	1.0		Other								
	Other					Others					Other								
	DK/missing					DK/missing					DK/missing								
	Total	100.0	100.0			Total	100.1	99.9	100.0		Total								
	Calculations					Calculations					Calculations								
	Estimations					Estimations					Estimations								
	50% of wells considered improved	2.1	14.5																
	Access to improved drinking water sources :	97%	83%			Access to improved drinking water sources :	98%	86%	90%		Access to improved drinking water sources :								
	Access to house connections :	95%	69%			Access to house connections :					Access to house connections :								
	Used for the estimates :	No	No			Used for the estimates :	yes	yes			Used for the estimates :	yes	yes						
	Used for the estimates :	Yes	Yes			Used for the estimates :	No	No			Used for the estimates :	No	No						
	Ratios					Ratios					Ratios								
	HC / Tap water	100%	100%			HC / Tap water					HC / Tap water								
	Public tap / Tap water					Public tap / Tap water					Public tap / Tap water								
	Tubewell + protected well / All wells					Tubewell + protected well / All wells	85%	88%			Tubewell + protected well / All wells								
	Protected wells / Traditional wells					Protected wells / Traditional wells	50%	69%			Protected wells / Traditional wells								
	Tubewell / All wells					Tubewell / All wells	70%	61%			Tubewell / All wells								
	Protected springs / All springs					Protected springs / All springs	25%	49%			Protected springs / All springs								
	Protect. well & spring / well & spring					Protect. well & spring / well & spring	58%	82%			Protect. well & spring / well & spring								
	Number of people covered by the survey:					Number of people covered by the survey:					Number of people covered by the survey:								
	Number of households covered by the survey:					Number of households covered by the survey:					Number of households covered by the survey:								
	Total population:					Total population:					Total population:								
	Comments					Comments					Comments								

China			DRINKING WATER								
			URBAN				RURAL				
			House connection		Total		House connection		Total		
Source	Code	Year	Used	Not used	Used	Not used	Used	Not used	Used	Not used	
Economic, Population, Nutrition, and Health Survey	CHS89	1989	84.0			84.0		36.5			36.5
Economic, Population, Nutrition, and Health Survey	CHS91	1991	87.1			87.1		44.2			44.2
National Child Survey (Multiple Indicator Cluster Survey)	NMICS92	1992		94.2	98.8				16.9	60.8	
National census	CEN91	1991		87.7	95.7				19.0	61.9	
National Health Services Survey	NHSS93	1993		94.4	97.3				21.8	60.2	
Economic, Population, Nutrition, and Health Survey	CHS93	1993	90.0			90.0		49.8			49.8
Multiple Indicator Cluster Survey	MICS95	1995		94.6	97.1				24.9	55.6	
Incomplete data	XXX	1995				94.0					82.8
Economic, Population, Nutrition, and Health Survey	CHS97	1997	91.7			91.7		56.0			56.0
Annual Statistical Report on National Rural Water Supply	ASR98	1998									90.6
National Health Services Survey	NHS98	1998		94.5	97.8				26.5	68.3	
1/1,000 Population Sampling Survey	PSS99	1999		91.2	94.4				27.4	65.5	
Global Water Supply and Sanitation Assessment 2000.	JMP99	1999				96.0			50.4		75.0
Economic, Population, Nutrition, and Health Survey	CHS00	2000	90.3			90.3		60.0			60.0
World Health Survey	WHS03	2003		98.6		99.5			60.8		85.5
National Health Service Survey	NHSS03	2003		95.8	99.2				34.0	80.2	
Economic, Population, Nutrition, and Health Survey	CHS04	2004	92.9			92.9		64.5			64.5
Agriculture Census	AC06	2006								73.8	
Economic, Population, Nutrition, and Health Survey	CHS06	2006	94.6			96.6		68.6			83.1
National Health Service Survey	NHSS08	2008			98.3					85.8	

China - urban - Use of improved drinking water sources



China - rural - Use of improved drinking water sources



Drinking Water

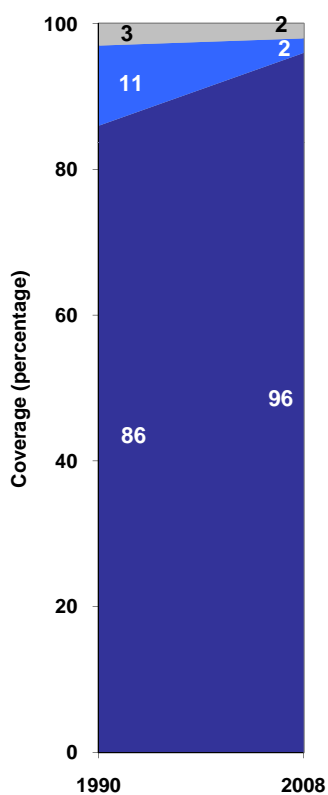
China	Drinking water coverage estimates					
	Urban (%)		Rural (%)		Total (%)	
	1990	2008	1990	2008	1990	2008
Piped into premises	86	96	42	73	54	83
Other improved source	11	2	14	9	13	6
Unimproved source	3	2	44	18	33	11

Source: WHO/UNICEF JMP, 2010

China	Urban		Rural		Total	
	1990	2008	1990	2008	1990	2008
Population (x1000)	312933	577039	829157	760372	1142090	1337411

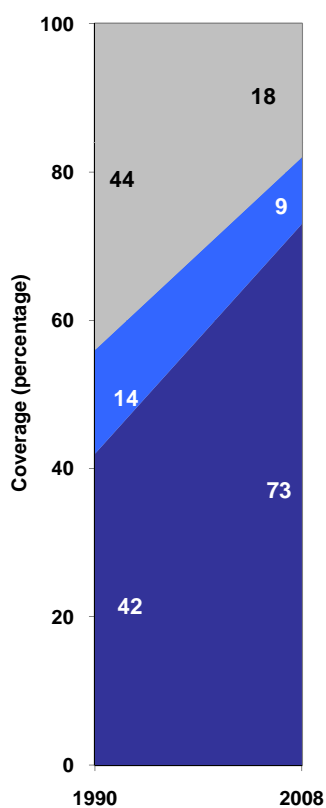
Source: UN / Population Division, 2008

Urban drinking water trends



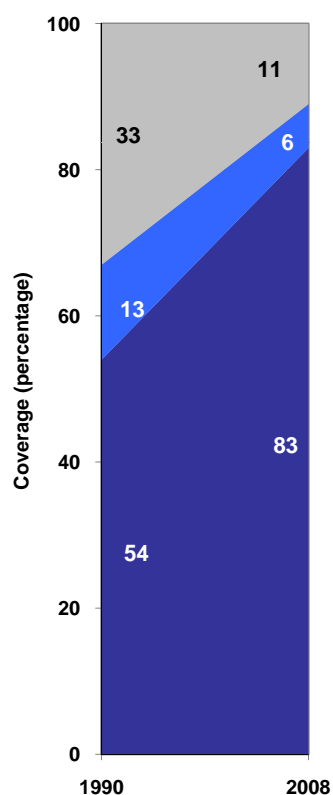
■ Unimproved sources
■ Other improved sources
■ Piped onto premises

Rural drinking water trends



■ Unimproved sources
■ Other improved sources
■ Piped onto premises

Total drinking water trends



■ Unimproved sources
■ Other improved sources
■ Piped onto premises