

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

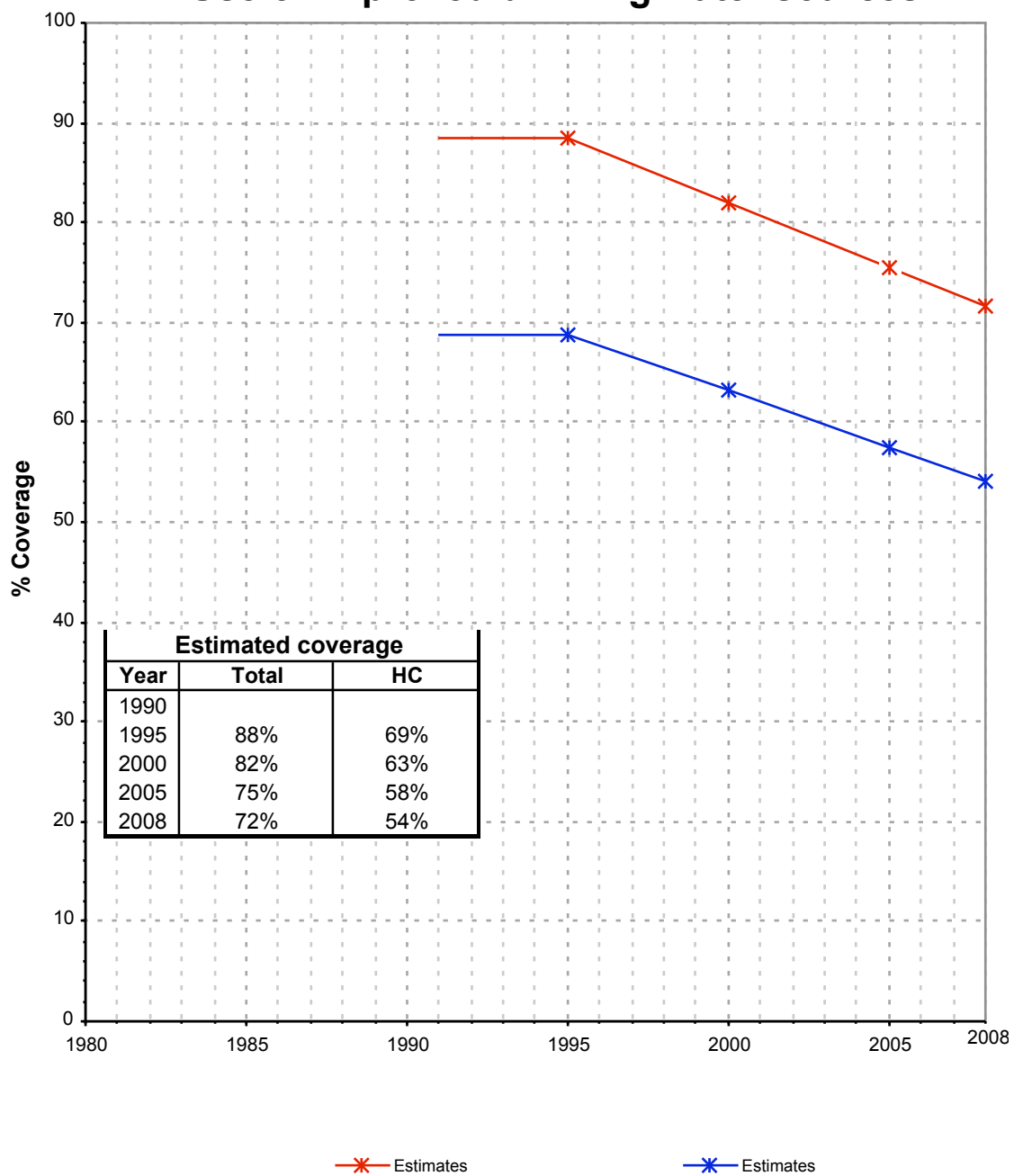
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Access to drinking water sources		DHS92			Yemen			Access to drinking water sources		CEN97			Yemen		
Demographic and Health Survey					1992			National Census					1997		
								Central Statistical Organisation, Ministry of Planning and Development							
Original denomination	Classification				Urban	Rural	Total	Original denomination	Classification				Urban	Rural	Total
	Tap water								Tap water				60.7	33.2	
	House connections								House connections				60.7	24.9	
	Piped water into dwelling								Piped water into dwelling				60.7	12.1	
	Piped water to yard/plot								Piped water to yard/plot				0.0	12.8	
	Public tap, standpipe								Public Standpipe				0.0	8.3	
	Other								Other						
	Ground water				92.6	73.0			Ground water						
	Protected ground water				89.3	47.4			Protected ground water						
	Unprotected ground water								Unprotected ground water						
	Protected wells or springs				2.1	23.7	0.0		Protected wells or springs						
	Private				6.0	4.8			Private						
Private project	Public				75.3	7.3			Public						
Government project	Other				5.9	11.6			Other						
Cooperative project	Unprotected wells or springs								Unprotected wells or springs						
	Private								Private						
	Public								Public						
	Other								Other						
	All wells				5.4	49.3			All wells						
	Private								Private						
	Public								Public						
	Other								Other						
Well with pump	Tubewell, borehole				2.1	23.7			Tubewell, borehole						
	Private								Private						
	Public								Public						
	Other								Other						
Well	Traditional wells				3.3	25.6			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				1.1	5.6			Rainwater						
Covered Cistern	Covered cistern/tank				0.9	2.9			Covered cistern/tank						
Uncovered Cistern	Uncovered cistern/tank				0.2	2.7			Uncovered cistern/tank						
	Bottled water								Bottled water						
	with other improved								with other improved						
	without other improved								without other improved						
	Surface water				1.8	18.6			Surface water						
	River								River						
	Lake								Lake						
	Dam								Dam						
	Pond								Pond						
Stream	Stream				1.8	18.6			Stream						
	Irrigation channel								Irrigation channel						
	Other								Other						
	Other improved sources								Other improved sources						
	Other								Other						
	Other								Other						
	Other non-improved				4.5	2.9			Other non-improved						
	Cart with small tank/drum								Cart with small tank/drum						
	Tanker truck provided								Tanker truck provided						
Other	Other				4.5	2.9			Other						
	Other								Other						
Missing	DK/missing				0.1	0.0		Not Specified	DK/missing				39.3	66.8	
	Total				100.1	100.1			Total				100.0	100.0	
Calculations								Calculations							
Estimations	Traditional wells considered improved based on MICS06				3.3	8.3		Estimations							
Access to improved drinking water sources :					94%	59%		Access to improved drinking water sources :					61%	33%	
Access to house connections :								Access to house connections :					61%	25%	
Used for the estimates:					No	No		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%	75%	
	Public tap / Tap water								Public tap / Tap water				0%	25%	
	Tubewell - protected well / All wells								Tubewell - protected well / All wells						
	Protected wells / Traditional wells								Protected wells / Traditional wells						
	Tubewell / All wells				39%	48%			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 census:					4130	12352	
Number of households covered by the survey:								Number of households covered by the census:							
Total population:								Total population:							
Comments								Comments							

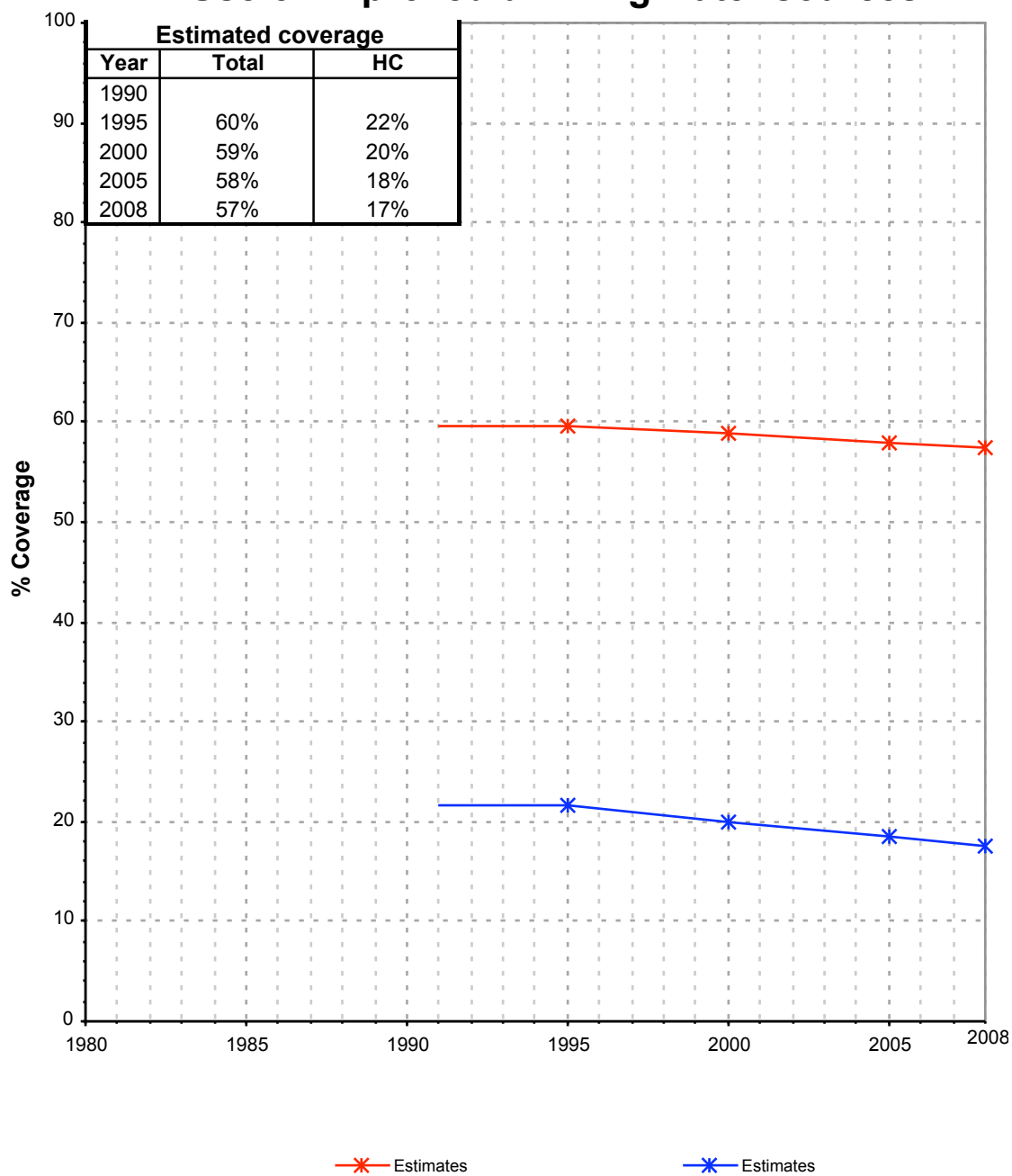
Access to drinking water sources		FHS04			Yemen			Access to drinking water sources		MICS06			Yemen		
Family Health Survey					2004			Multiple Indicator Cluster Survey III					2006		
								Ministry of Public Health and Population							
Original denomination	Classification	Urban	Rural	Total	Original denomination	Classification	Urban	Rural	Total	Original denomination	Classification	Urban	Rural	Total	
Public water net	Tap water	54.3	21.8			Tap water	55.1	27.8	36.2		Tap water	54.1	25.1	34.0	
	House connections	52.4	9.6			House connections					Piped water into dwelling	49.0	19.1	28.3	
	Piped water into dwelling					Piped into dwelling					Piped water to yard/plot	5.1	6.0	5.7	
	Piped water to yard/plot					Piped into yard or plot					Public tap, standpipe	1.0	2.7	2.2	
Common water place	Other	1.9	12.2			Public tap/standpipe					Other				
	Ground water	4.4	43.1			Ground water	1.2	51.4	35.9		Ground water	1.2	19.9	14.1	
	Protected ground water	4.4	43.1			Protected ground water					Unprotected ground water			31.5	
	Unprotected ground water					Unprotected ground water					Protected wells or springs	1.2	19.9	14.1	
	Protected wells or springs	4.4	43.1	0.0		Protected wells or springs					Private				
	Private					Private					Public				
	Public					Public					Other				
	Other					Other					Unprotected wells or springs	0.0	31.5	21.8	
	Unprotected wells or springs					Unprotected wells or springs					Private				
	Private					Private					Public				
	Public					Public					Other				
	Other					Other					All wells	1.2	36.6	25.7	
	All wells	4.4	43.1			All wells					Private				
	Private					Private					Public				
	Public					Public					Other				
	Other					Other					Tubewell, borehole	0.4	6.9	4.9	
Well supplied with pump	Tubewell, borehole	2.3	15.1			Tubewell/borehole					Tubewell, borehole				
	Private					Private					Private				
	Public					Public					Public				
	Other					Other					Other				
	Traditional wells	2.1	26.0			Traditional wells	0.8	29.7	20.8		Traditional wells				
	Private					Private					Private				
	Public					Public					Public				
	Other					Other					Other				
Well supplied	Protected well	2.1	28.0			Protected well	0.8	9.6	6.9		Protected well				
	Private					Private					Private				
	Public					Public					Public				
	Other					Other					Other				
	Unprotected well					Unprotected well	0.0	20.1	13.9		Unprotected well				
	Private					Private					Private				
	Public					Public					Public				
	Other					Other					Other				
	All springs					All springs	0.0	14.8	10.2		All springs				
	Private					Private					Private				
	Public					Public					Public				
	Other					Other					Other				
	Protected spring					Protected spring	0.0	3.4	2.3		Protected spring				
	Private					Private					Private				
	Public					Public					Public				
	Other					Other					Other				
	Unprotected spring					Unprotected spring	0.0	11.4	7.9		Unprotected spring				
	Private					Private					Private				
	Public					Public					Public				
	Other					Other					Other				
	Rainwater					Rainwater	0.3	4.1	2.9		Rainwater				
	Covered cistern/tank					Rainwater collection					Covered cistern/tank				
	Uncovered cistern/tank					Uncovered cistern/tank					Uncovered cistern/tank				
	Bottled water	24.6	0.6			Bottled water	22.9	1.0	7.8		Bottled water				
	with other improved					with other improved					with other improved				
	without other improved	24.6	0.6			Bottled water	17.2	0.5	5.7		without other improved	5.7	0.5	2.1	
Bottled water	Bottled water					Bottled water					Bottled water				
Running water/Lake	Surface water	2.2	16.6			Surface water	0.0	6.3	4.4		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	14.5	18.0			Other non-improved	20.5	9.4	12.9		Other non-improved				
	Cart with small tank/drum					Cart with small tank/drum	3.4	3.6	3.5		Cart with small tank/drum				
Tanks	Tanker truck provided	10.3	7.0			Tanker truck	14.7	4.8	7.9		Tanker truck provided				
Other	Other	4.2	11.0			Other	2.4	1.0	1.5		Other				
	Other					Other					Other				
	DK/missing					DK/missing					DK/missing				
	Total	100.0	100.1			Total	100.0	100.0	100.1		Total				
Calculations						Calculations									
Estimations						Estimations									
	bottled water with improved source based on MICS06	18.5	0.3												
	Bottled water with HC	9.2	0.2												
Access to improved drinking water sources :		77%	65%			Access to improved drinking water sources :		74%	52%	59%					
Access to house connections :		62%	10%			Access to house connections :		54%	25%	34%					
Used for the estimates:		Yes	Yes			Used for the estimates:		Yes	Yes						
Used for the estimates:		Yes	Yes			Used for the estimates:		Yes	Yes						
Ratios	HC / Tap water	97%	44%			Ratios	HC / Tap water	98%	90%						
	Public tap / Tap water	3%	56%				Public tap / Tap water	2%	10%						
	Tubewell + protected well / All wells	100%	100%				Tubewell + protected well / All wells	100%	45%						
	Protected wells / Traditional wells	100%	100%				Protected wells / Traditional wells	100%	32%						
	Tubewell / All wells	52%	35%				Tubewell / All wells	33%	19%						
	Protected springs / All springs						Protected springs / All springs	100%	23%						
	Protect. well & spring / well & spring						Protect. well & spring / well & spring	100%	39%						
							Bottled water+improved/all bottled water	75%	50%						
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									

Yemen			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
Demographic and Health Survey	DHS92	1992				93.5				58.6
National Census	CEN97	1997	60.7			60.7	24.9			33.2
Demographic and Health Survey	DHS97	1997	71.8		85.7		19.2		57.8	
Global Water Supply and Sanitation Assessment 2000.	JMP99	1999		60.7		60.7		12.1		33.2
Family Health Survey	FHS04	2004	61.6		77.2		9.8		65.2	
Multiple Indicator Cluster Survey III	MICS06	2006	54.1		73.8		25.1		52.3	

Yemen - urban - Use of improved drinking water sources



Yemen - rural - Use of improved drinking water sources



Drinking Water

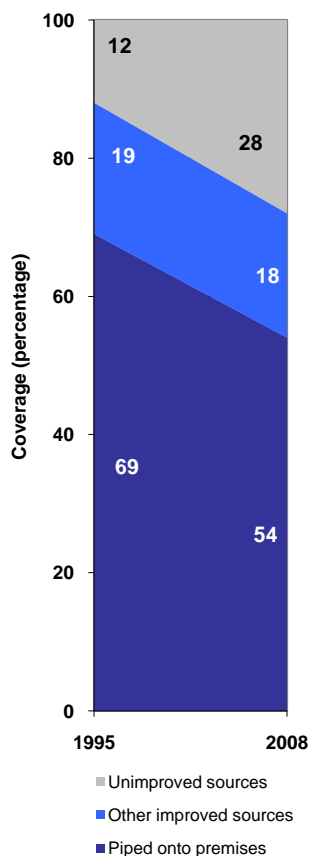
Yemen	Drinking water coverage estimates					
	Urban (%)		Rural (%)		Total (%)	
	1995	2008	1995	2008	1995	2008
Piped into premises	69	54	22	17	33	28
Other improved source	19	18	38	40	34	34
Unimproved source	12	28	40	43	33	38

Source: WHO/UNICEF JMP, 2010

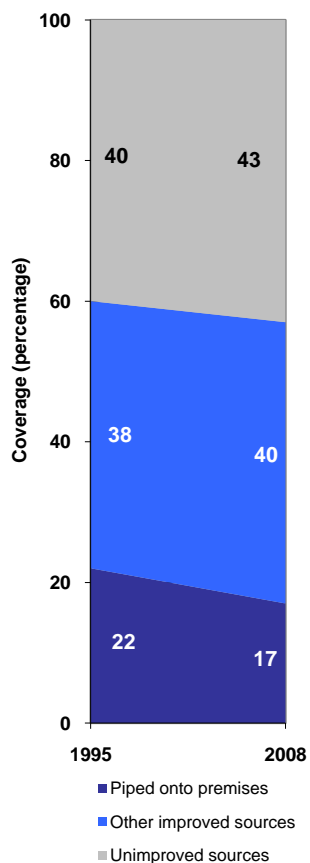
Yemen	Urban		Rural		Total	
	1995	2008	1995	2008	1995	2008
Population (x1000)	3 688	7020	11,835	15898	15 523	22917

Source: UN / Population Division, 2008

Urban drinking water trends



Rural drinking water trends



Total drinking water trends

