

**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](http://childinfo.org)



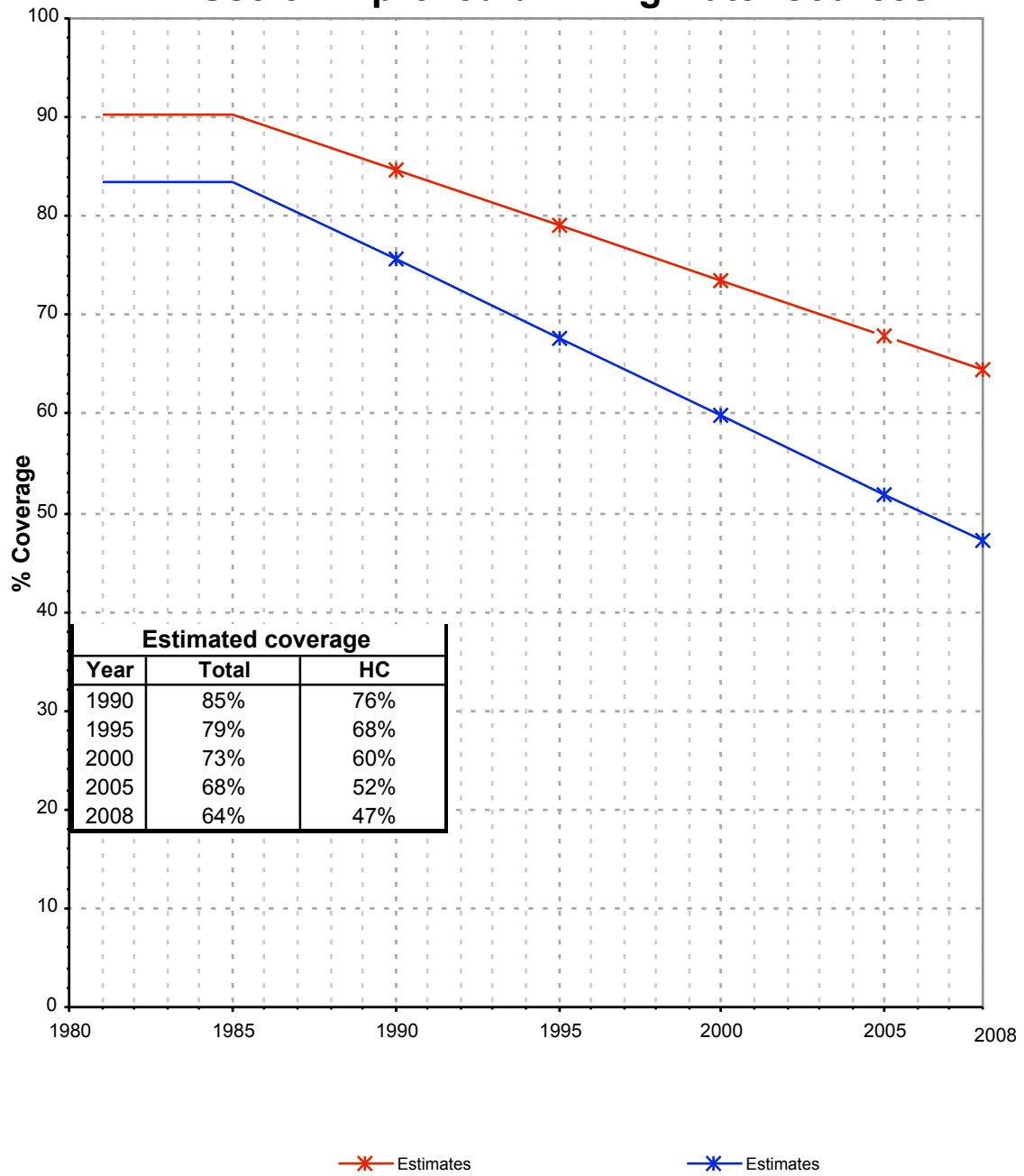
Access to drinking water sources		PAPCHILD92		Sudan		Access to drinking water sources		CEN93		Sudan	
PAPCHILD Survey				1992		Census as recorded in the Global Water Supply and Sanitation Assessment 2000. Water Supply and Sanitation Questionnaire - 1999.				1993	
Original denomination	Classification	Urban	Rural	Total	Original denomination	Classification	Urban	Rural	Total		
Public Network	<b>Tap water</b>	64.9	14.0			<b>Tap water</b>	80.9	50.5			
	House connections				Piped into Residence	House connections	74.9	15.8			
	Piped water into dwelling					Piped water into dwelling					
	Piped water to yard/plot					Piped water to yard/plot					
	Public tap, standpipe				Piped Outside	Public tap, standpipe	6.1	34.7			
	Other					Other					
	<b>Ground water</b>	23.5	58.5			<b>Ground water</b>	4.5	23.2			
	Protected ground water	17.3	32.2			Protected ground water					
	Unprotected ground water					Unprotected ground water					
	Protected wells or springs	17.3	32.2	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					
	<b>All wells</b>	23.5	58.5			<b>All wells</b>	4.5	23.2			
	Private				Piped Well	Private					
	Public					Public	4.5	23.2			
	Other					Other					
Well with Pump	Tubewell, borehole	17.3	32.2			Tubewell, borehole					
	Private					Private					
	Public					Public					
	Other					Other					
Well without Pump	<b>Traditional wells</b>	6.2	26.3			<b>Traditional wells</b>					
	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					
	<b>All springs</b>					<b>All springs</b>					
	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					
	<b>Rainwater</b>	0.1	3.9			<b>Rainwater</b>					
Rainwater	Covered cistern/tank	0.1	3.9			Covered cistern/tank					
	Uncovered cistern/tank					Uncovered cistern/tank					
	<b>Bottled water</b>					<b>Bottled water</b>					
	with other improved					with other improved					
	without other improved					without other improved					
	<b>Surface water</b>	2.2	10.4			<b>Surface water</b>	2.8	10.4			
River/Canal	River	2.2	10.4		River	River	2.8	10.4			
	Lake					Lake					
	Dam					Dam					
	Pond					Pond					
	Stream					Stream					
	Irrigation channel					Irrigation channel					
	Other					Other					
	<b>Other improved sources</b>					<b>Other improved sources</b>					
	Other					Other					
	Other					Other					
	<b>Other non-improved</b>	9.4	13.3			<b>Other non-improved</b>	11.7	16.0			
	Cart with small tank/drum					Cart with small tank/drum					
Truck with Tank	Tanker truck provided	5.2	2.8		Vendor	Tanker truck provided	9.3	6.3			
PI	Other	0.1	4.1		Other	Other	2.4	9.6			
Other	Other	4.1	6.4			Other					
	<b>DK/missing</b>					<b>DK/missing</b>					
	<b>Total</b>	100.1	100.1			<b>Total</b>	100.0	100.0			
<b>Calculations</b>					<b>Calculations</b>						
	Standpipe, based on DHS89 & CEN93	4.8	8.5								
<b>Estimations</b>					<b>Estimations</b>						
	Traditional wells considered improved, based on SHH06	2.0	8.3			Wells considered improved, based on SHH06	2.4	12.6			
	HC, based on DHS89 & CEN93	60.1	5.5								
<b>Access to improved drinking water sources :</b>		<b>84%</b>	<b>58%</b>		<b>Access to improved drinking water sources :</b>		<b>83%</b>	<b>63%</b>			
<b>Access to house connections :</b>		<b>60%</b>	<b>6%</b>		<b>Access to house connections :</b>		<b>75%</b>	<b>16%</b>			
Used for the estimates:		Yes	Yes		Used for the estimates:		Yes	Yes			
Used for the estimates:		No	No		Used for the estimates:		Yes	Yes			
<b>Ratios</b>	HC / Tap water				<b>Ratios</b>	HC / Tap water	92%	31%			
	Public tap / Tap water					Public tap / Tap water	8%	69%			
	Tubewell + protected well / All wells					Tubewell + protected well / All wells					
	Protected wells / Traditional wells					Protected wells / Traditional wells					
	Tubewell / All wells	74%	55%			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:	7080	22190			
	Number of households covered by the survey:					Number of households covered by the census:					
	Total population:					Total population:					
<b>Comments</b>					<b>Comments</b>						

Access to drinking water sources		JMP99			Sudan			Access to drinking water sources		MICS00			Sudan						
Global Water Supply and Sanitation Assessment 2000.					Multiple Indicator Cluster Survey														
Water Supply and Sanitation Sector Questionnaire - 1999. Form 6 sent to WHO.					1999					North Sudan					2000				
Original denomination	Classification	Urban	Rural	Total	Original denomination	Classification	Urban	Rural	Total	Original denomination	Classification	Urban	Rural	Total					
Population served with household connection	<b>Tap water</b>	69.3	19.4			<b>Tap water</b>	57.5	21.2			<b>Tap water</b>	47.3	15.0						
	House connections	69.3	19.4			House connections	47.3	15.0			House connections	47.3	15.0						
	Piped water into dwelling					Piped into dwelling					Piped water into dwelling								
	Piped water to yard/plot					Piped water to yard/plot					Piped water to yard/plot								
	Public tap, standpipe					Public tap					Public tap, standpipe	10.2	6.2						
	Other					Other					Other								
Population without household connection but with reasonable access to a public	<b>Ground water</b>	10.0	49.2			<b>Ground water</b>	31.4	51.0			<b>Ground water</b>	21.3	31.2						
	Protected ground water	10.0	49.2			Protected ground water	21.3	31.2			Protected ground water								
	Unprotected ground water					Unprotected ground water					Unprotected ground water								
	Protected wells or springs					Protected wells or springs	21.3	31.2	0.0		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								
	<b>All wells</b>					<b>All wells</b>	31.4	51.0			<b>All wells</b>								
	Private					Private					Private								
	Public					Public					Public								
	Other					Other					Other								
	Tubewell, borehole					Deep well/pump					Tubewell, borehole	21.3	31.2						
	Private					Private					Private								
	Public					Public					Public								
	Other					Other					Other								
	<b>Traditional wells</b>					<b>Traditional wells</b>	10.1	19.8			<b>Traditional wells</b>								
	Private					Private					Private								
	Public					Public					Public								
	Other					Other					Other								
	Protected well					Dug well/bucket					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									
<b>All springs</b>					<b>All springs</b>					<b>All springs</b>									
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									
<b>Rainwater</b>					<b>Rainwater</b>	0.6	11.0			<b>Rainwater</b>	0.6	11.0							
Covered cistern/tank					Rainwater					Covered cistern/tank									
Uncovered cistern/tank					Uncovered cistern/tank					Uncovered cistern/tank									
<b>Bottled water</b>					<b>Bottled water</b>					<b>Bottled water</b>									
with other improved					with other improved					with other improved									
without other improved					without other improved					without other improved									
<b>Surface water</b>					<b>Surface water</b>	3.3	12.6			<b>Surface water</b>	3.3	12.6							
River					River/canal					River									
Lake					Lake					Lake									
Dam					Dam					Dam									
Pond					Pond					Pond									
Stream					Stream					Stream									
Irrigation channel					Irrigation channel					Irrigation channel									
Other					Other					Other									
<b>Other improved sources</b>					<b>Other improved sources</b>					<b>Other improved sources</b>									
Other					Other					Other									
Other					Other					Other									
Total population unserved	<b>Other non-improved</b>	20.7	31.4			<b>Other non-improved</b>	7.0	3.9			<b>Other non-improved</b>								
Cart with small tank/drum	Cart with small tank/drum					Cart with small tank/drum					Cart with small tank/drum								
Tanker truck provided	Tanker truck provided					Tanker truck provided					Tanker truck provided								
Other	Other				Other					Other	7.0	3.9							
Other	Other				Other					Other									
<b>DK/missing</b>	<b>DK/missing</b>				Missing					<b>DK/missing</b>	0.2	0.1							
<b>Total</b>	<b>Total</b>	100.0	100.0		<b>Total</b>	100.0	99.8			<b>Total</b>	100.0	99.8							
<b>Calculations</b>					<b>Calculations</b>														
<b>Estimations</b>					<b>Estimations</b>					Traditional wells considered improved, based on SHH06	3.3	6.2							
<b>Access to improved drinking water sources :</b>		79%	69%		<b>Access to improved drinking water sources :</b>	83%	70%												
<b>Access to house connections :</b>		69%	19%		<b>Access to house connections :</b>	47%	15%												
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 :	No	No			Used for the estimates :	No	No							
<b>Ratios</b>	HC / Tap water	100%	100%		<b>Ratios</b>	HC / Tap water	82%	71%			HC / Tap water	82%	71%						
	Public tap / Tap water					Public tap / Tap water	18%	29%			Public tap / Tap water	18%	29%						
	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	68%	61%			Tubewell / All wells	68%	61%						
	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:	7500	18000			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:								
<b>Comments</b>					<b>Comments</b>	MICS 2000 was conducted in North Sudan only and thus is not nationally representative													

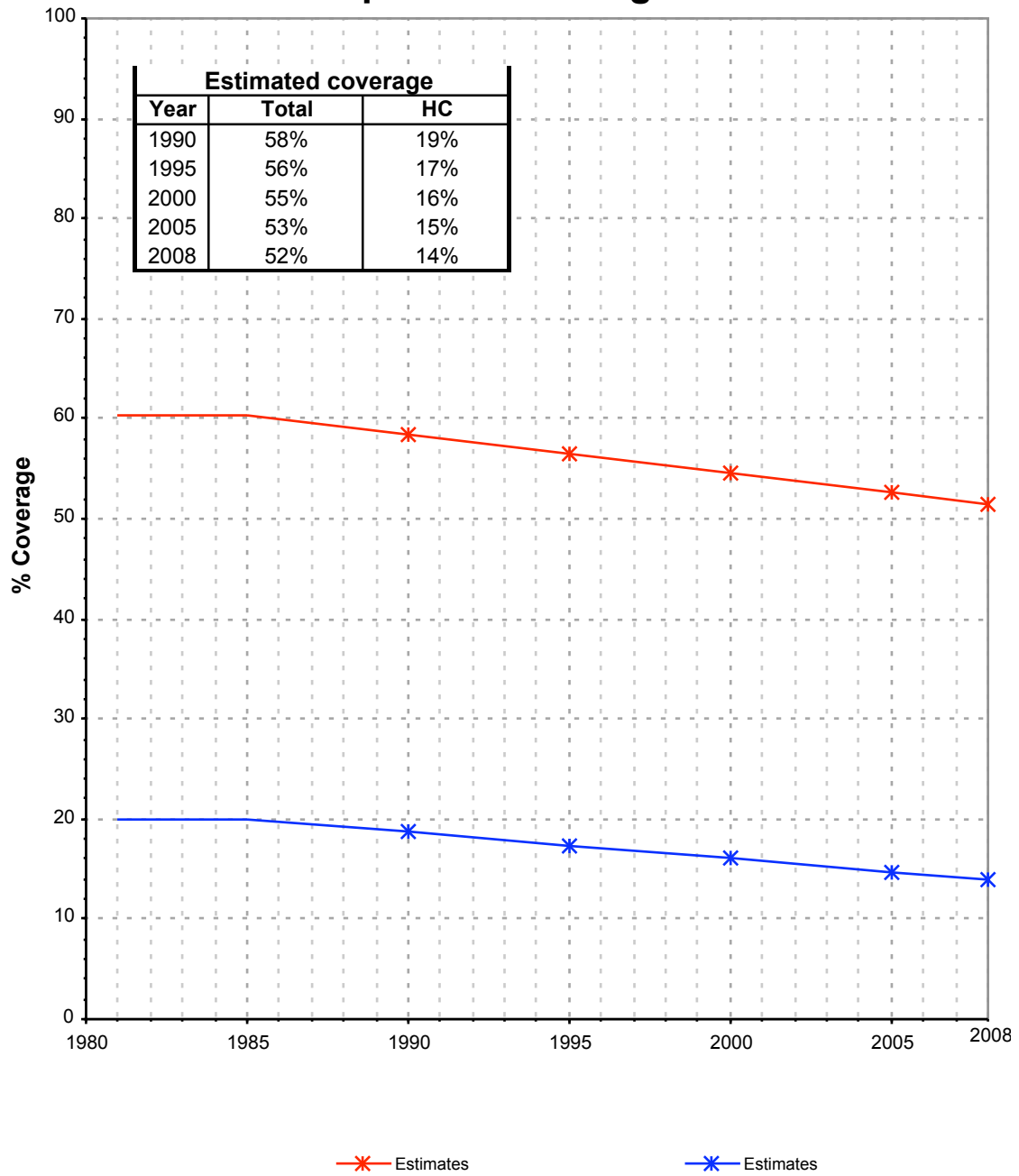


Sudan			DRINKING WATER							
			URBAN				RURAL			
			House connection		Total		House connection		Total	
Source	Code	Year	Used	Not used	Used	Not used	Used	Not used	Used	Not used
Demographic and Health Survey	DHS87	1987	78.7		86.1		21.2		57.2	
Demographic and Health Survey	DHS89	1989	75.9		84.5		18.7		56.4	
PAPCHILD Survey	PAPCHILD92	1992		60.1	84.3			5.5	58.4	
Census	CEN93	1993	74.9		83.4		15.8		63.0	
Global Water Supply and Sanitation Assessment 2000.	JMP99	1999		69.3		79.3		19.4		68.6
Multiple Indicator Cluster Survey	MICS00	2000		47.3		82.7		15.0		69.6
Sudan Household Health Survey		2006	49.2		65.6		15.1		50.5	

## Sudan - urban - Use of improved drinking water sources



# Sudan - rural - Use of improved drinking water sources



# Drinking Water

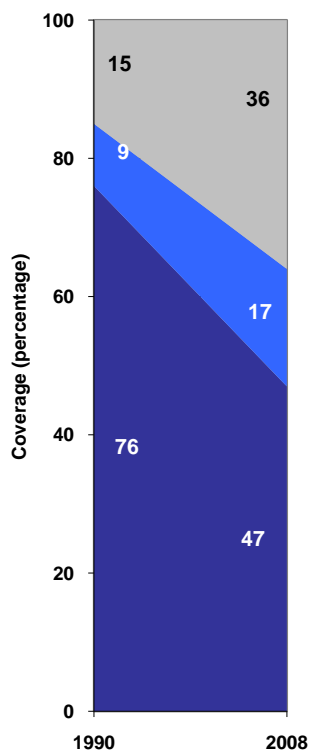
Sudan	Drinking water coverage estimates					
	Urban (%)		Rural (%)		Total (%)	
	1990	2008	1990	2008	1990	2008
Piped into premises	76	47	19	14	34	28
Other improved source	9	17	39	38	31	29
Unimproved source	15	36	42	48	35	43

Source: WHO/UNICEF JMP, 2010

Sudan	Urban		Rural		Total	
	1990	2008	1990	2008	1990	2008
Population (x1000)	7211	17976	19880	23372	27091	41348

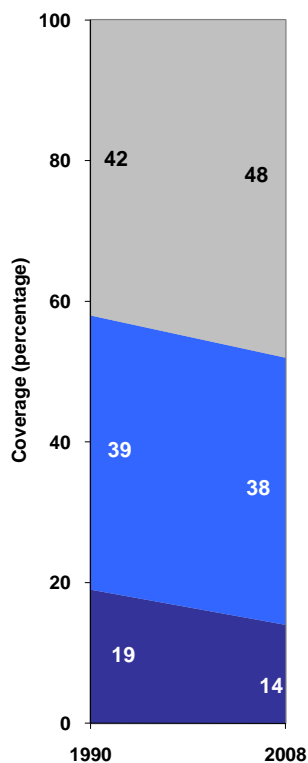
Source: UN / Population Division, 2008

Urban drinking water trends



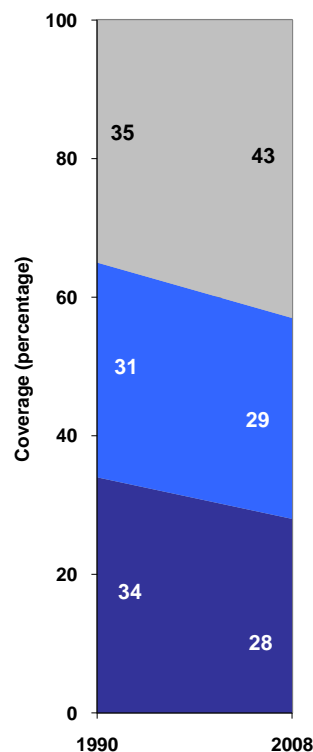
■ Unimproved sources  
■ Other improved sources  
■ Piped onto premises

Rural drinking water trends



■ Unimproved sources  
■ Other improved sources  
■ Piped onto premises

Total drinking water trends



■ Unimproved sources  
■ Other improved sources  
■ Piped onto premises