

**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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Use of sanitation facilities		DHS93			Kenya			Use of sanitation facilities		DHS98			Kenya		
Demographic and Health Survey					1993			Demographic and Health Survey					1998		
Original denomination	Classification	Urban	Rural	Total	Original denomination	Classification	Urban	Rural	Total						
	<b>Flush and pour flush</b>	44.9	1.6			<b>Flush and pour flush</b>	43.0	2.1							
	to piped sewer system					to piped sewer system									
	to septic tank					to septic tank									
	to pit					to pit									
	to unknown place/ not sure/DK					to unknown place/ not sure/DK									
	to elsewhere					to elsewhere									
	<b>Flush/toilets</b>	44.9	1.6			<b>Flush/toilets</b>	43.0	2.1							
	to piped sewer system					to piped sewer system									
	to septic tank					to septic tank									
	to pit					to pit									
	to unknown place/ not sure/DK					to unknown place/ not sure/DK									
	to elsewhere					to elsewhere									
Own Flush Toilet	<b>Private flush/toilet</b>	23.5	1.1		Own Flush Toilet	<b>Private flush/toilet</b>	24.7	1.5							
	to piped sewer system					to piped sewer system									
	to septic tank					to septic tank									
	to pit					to pit									
	to unknown place/ not sure/DK					to unknown place/ not sure/DK									
	to elsewhere					to elsewhere									
Shared Flush Toilet	<b>Public/shared flush/toilet</b>	21.4	0.5		Shared Flush Toilet	<b>Public/shared flush/toilet</b>	18.3	0.6							
	to piped sewer system					to piped sewer system									
	to septic tank					to septic tank									
	to pit					to pit									
	to unknown place/ not sure/DK					to unknown place/ not sure/DK									
	to elsewhere					to elsewhere									
	<b>Latrines</b>	49.2	77.3			<b>Latrines</b>	53.0	79.0							
	<b>Pour flush latrines</b>					<b>Pour flush latrines</b>									
	to piped sewer system					to piped sewer system									
	to septic tank					to septic tank									
	to pit					to pit									
	to unknown place/ not sure/DK					to unknown place/ not sure/DK									
	to elsewhere					to elsewhere									
	<b>Private pour flush latrine</b>					<b>Private pour flush latrine</b>									
	to piped sewer system					to piped sewer system									
	to septic tank					to septic tank									
	to pit					to pit									
	to unknown place/ not sure/DK					to unknown place/ not sure/DK									
	to elsewhere					to elsewhere									
	<b>Public/shared pour flush latrine</b>					<b>Public/shared pour flush latrine</b>									
	to piped sewer system					to piped sewer system									
	to septic tank					to septic tank									
	to pit					to pit									
	to unknown place/ not sure/DK					to unknown place/ not sure/DK									
	to elsewhere					to elsewhere									
	<b>Dry latrines</b>	49.2	77.3			<b>Dry latrines</b>	53.0	79.0							
	<b>Improved latrines</b>	6.9	5.9			<b>Improved latrines</b>	10.7	5.7							
VIP	Ventilated Improved Pit latrine	6.9	5.9		Ventilated Improved Pit	Ventilated Improved Pit latrine	10.7	5.7							
	Pit latrine with slab/covered latrine					Pit latrine with slab/covered latrine									
Traditional Pit Toilet**	Traditional latrine	42.3	71.4		Traditional Pit Toilet	Traditional latrine	42.3	73.3							
	Pit latrine without slab/open pit					Pit latrine without slab/open pit									
	Hanging toilet/hanging latrine					Hanging toilet/hanging latrine									
	Bucket latrine					Bucket latrine									
	Other					Other									
	<b>Private Latrines</b>					<b>Private Latrines</b>									
	Ventilated Improved Pit latrine					Ventilated Improved Pit latrine									
	Pit latrine with slab/covered latrine					Pit latrine with slab/covered latrine									
	Traditional latrine					Traditional latrine									
	Pit latrine without slab/open pit					Pit latrine without slab/open pit									
	Hanging toilet/hanging latrine					Hanging toilet/hanging latrine									
	Bucket latrine					Bucket latrine									
	Other					Other									
	<b>Public/shared Latrines</b>					<b>Public/shared Latrines</b>									
	Ventilated Improved Pit latrine					Ventilated Improved Pit latrine									
	Pit latrine with slab/covered latrine					Pit latrine with slab/covered latrine									
	Traditional latrine					Traditional latrine									
	Pit latrine without slab/open pit					Pit latrine without slab/open pit									
	Hanging toilet/hanging latrine					Hanging toilet/hanging latrine									
	Bucket latrine					Bucket latrine									
	Other					Other									
	<b>Composting toilets</b>					<b>Composting toilets</b>									
	Composting toilet (private)					Composting toilet (private)									
	Composting toilet (shared)					Composting toilet (shared)									
	<b>Other improved</b>					<b>Other improved</b>									
	Other					Other									
No Facilities/Bush	<b>No facility, bush, field</b>	2.1	20.3		No Facilities	<b>No facility, bush, field</b>	2.6	18.6							
	<b>Other unimproved</b>	3.0	0.3			<b>Other unimproved</b>	1.0	0.1							
	Other	3.0	0.3		Other	Other	1.0	0.1							
	Other					Other									
Missing info	<b>DK/missing information</b>	0.9	0.5		Missing info	<b>DK/missing information</b>	0.3	0.3							
	<b>Total</b>	100.1	100.0			<b>Total</b>	99.9	100.1							
<b>Calculations</b>					<b>Calculations</b>										
<b>Estimations</b>	Latrines considered improved based on the average of CWIQ97 and DHS08	23.8	37.9		<b>Estimations</b>	Latrines considered improved based on the average of CWIQ97 and DHS08	23.8	38.9							
	Sewer connection, based on WHS04	40.4	0.8			Sewer connection, based on WHS04	38.7	1.1							
	<b>Access to improved sanitation :</b>	<b>76%</b>	<b>45%</b>			<b>Access to improved sanitation :</b>	<b>78%</b>	<b>47%</b>							
	<b>Access to sewerage connections :</b>	<b>40%</b>	<b>1%</b>			<b>Access to sewerage connections :</b>	<b>39%</b>	<b>1%</b>							
	Used for the estimates	Yes	Yes			Used for the estimates	Yes	Yes							
	Used for the estimates	Yes	Yes			Used for the estimates	Yes	Yes							
<b>Ratios</b>	Shared improved facilities/all improved facilities	14%	8%		<b>Ratios</b>	Shared improved facilities/all improved facilities	20%	7%							
	Improved latrine / All latrines					Improved latrine / All latrines									
	Covered dry latrines / All dry latrines					Covered dry latrines / All dry latrines									
	VIP / All latrines	14%	8%			VIP / All latrines	20%	7%							
	Traditional latrines / All latrines	86%	92%			Traditional latrines / All latrines	80%	93%							
	Improved + traditional latrines / All latrines	100%	100%			Improved + traditional latrines / All latrines	100%	100%							
	Sewerage connection among flush/pour flush					Sewerage connection among flush/pour flush									
	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:									
<b>Comments</b>					<b>Comments</b>										



Use of sanitation facilities		MICS00			Kenya			Use of sanitation facilities		DHS03			Kenya		
Multiple Indicator Cluster Survey								Demographic and Health Survey							
Preliminary Report					2000			2003							
Original denomination	Classification	Urban	Rural	Total	Original denomination	Classification	Urban	Rural	Total						
	<b>Flush and pour flush</b>	42.8	6.4			<b>Flush and pour flush</b>	39.0	1.7							
	to piped sewer system					to piped sewer system									
	to septic tank					to septic tank									
	to pit					to pit									
	to unknown place/ not sure/DK					to unknown place/ not sure/DK									
	to elsewhere					to elsewhere									
Flush to sewage/septic tank	<b>Flush/toilets</b>	38.1	6.0		Flush toilet	<b>Flush/toilets</b>	39.0	1.7							
	to piped sewer system					to piped sewer system									
	to septic tank					to septic tank									
	to pit					to pit									
	to unknown place/ not sure/DK					to unknown place/ not sure/DK									
	to elsewhere					to elsewhere									
	<b>Private flush/toilet</b>					<b>Private flush/toilet</b>									
	to piped sewer system					to piped sewer system									
	to septic tank					to septic tank									
	to pit					to pit									
	to unknown place/ not sure/DK					to unknown place/ not sure/DK									
	to elsewhere					to elsewhere									
	<b>Public/shared flush/toilet</b>					<b>Public/shared flush/toilet</b>									
	to piped sewer system					to piped sewer system									
	to septic tank					to septic tank									
	to pit					to pit									
	to unknown place/ not sure/DK					to unknown place/ not sure/DK									
	to elsewhere					to elsewhere									
	<b>Latrines</b>	60.4	76.8			<b>Latrines</b>	55.9	77.6							
Pour flush latrine	<b>Pour flush latrines</b>	4.7	0.4			<b>Pour flush latrines</b>									
	to piped sewer system					to piped sewer system									
	to septic tank					to septic tank									
	to pit					to pit									
	to unknown place/ not sure/DK					to unknown place/ not sure/DK									
	to elsewhere					to elsewhere									
	<b>Private pour flush latrine</b>					<b>Private pour flush latrine</b>									
	to piped sewer system					to piped sewer system									
	to septic tank					to septic tank									
	to pit					to pit									
	to unknown place/ not sure/DK					to unknown place/ not sure/DK									
	to elsewhere					to elsewhere									
	<b>Public/shared pour flush latrine</b>					<b>Public/shared pour flush latrine</b>									
	to piped sewer system					to piped sewer system									
	to septic tank					to septic tank									
	to pit					to pit									
	to unknown place/ not sure/DK					to unknown place/ not sure/DK									
	to elsewhere					to elsewhere									
	<b>Dry latrines</b>	55.7	76.4			<b>Dry latrines</b>	55.9	77.6							
Improved pit latrine	<b>Improved latrines</b>	6.9	6.4		VIP latrine	<b>Improved latrines</b>	11.7	7.3							
	Ventilated Improved Pit latrine					Ventilated Improved Pit latrine									
	Pit latrine with slab/covered latrine					Pit latrine with slab/covered latrine									
Traditional pit latrine**	Traditional latrine	45.4	64.0		Traditional pit toilet	Traditional latrine	44.2	70.3							
Open pit	Pit latrine without slab/open pit	2.6	6.0			Pit latrine without slab/open pit									
	Hanging toilet/hanging latrine					Hanging toilet/hanging latrine									
Bucket	Bucket latrine	0.8	0.0			Bucket latrine									
	Other					Other									
	<b>Private Latrines</b>					<b>Private Latrines</b>									
	Ventilated Improved Pit latrine					Ventilated Improved Pit latrine									
	Pit latrine with slab/covered latrine					Pit latrine with slab/covered latrine									
	Traditional latrine					Traditional latrine									
	Pit latrine without slab/open pit					Pit latrine without slab/open pit									
	Hanging toilet/hanging latrine					Hanging toilet/hanging latrine									
	Bucket latrine					Bucket latrine									
	Other					Other									
	<b>Public/shared Latrines</b>					<b>Public/shared Latrines</b>									
	Ventilated Improved Pit latrine					Ventilated Improved Pit latrine									
	Pit latrine with slab/covered latrine					Pit latrine with slab/covered latrine									
	Traditional latrine					Traditional latrine									
	Pit latrine without slab/open pit					Pit latrine without slab/open pit									
	Hanging toilet/hanging latrine					Hanging toilet/hanging latrine									
	Bucket latrine					Bucket latrine									
	Other					Other									
	<b>Composting toilets</b>					<b>Composting toilets</b>									
	Composting toilet (private)					Composting toilet (private)									
	Composting toilet (shared)					Composting toilet (shared)									
	<b>Other improved</b>					<b>Other improved</b>									
	Other					Other									
No facilities/ bush/ field	<b>No facility, bush, field</b>	1.3	17.2		No facility,bush,field	<b>No facility, bush, field</b>	3.7	20.4							
	<b>Other unimproved</b>	0.3	0.1			<b>Other unimproved</b>	1.2	0.1							
	Other	0.3	0.1		Other	Other	1.2	0.1							
	Other					Other									
	<b>DK/missing information</b>				Missing	<b>DK/missing information</b>	0.2	0.2							
	<b>Total</b>	100.1	100.1			<b>Total</b>	100.0	100.0							
<b>Calculations</b>					<b>Calculations</b>										
	Latrines considered improved based on the average of CWIQ97 and DHS08	25.6	34.0			Latrines considered improved based on the average of CWIQ97 and DHS08	24.9	37.3							
<b>Estimations</b>					<b>Estimations</b>										
	Sewer connection, based on WHS04	34.3	3.0			Sewer connection, based on WHS04	35.1	0.9							
	<b>Access to improved sanitation :</b>	<b>75%</b>	<b>47%</b>			<b>Access to improved sanitation :</b>	<b>76%</b>	<b>46%</b>							
	<b>Access to sewerage connections :</b>	<b>34%</b>	<b>3%</b>			<b>Access to sewerage connections :</b>	<b>35%</b>	<b>1%</b>							
	Used for the estimates	Yes	Yes			Used for the estimates	Yes	Yes							
	Used for the estimates	Yes	Yes			Used for the estimates	Yes	Yes							
<b>Ratios</b>	Shared improved facilities/all improved facilities	19%	9%			Shared improved facilities/all improved facilities	57.1%	33.7%							
	Improved latrine / All latrines					Improved latrine / All latrines	21%	9%							
	Covered dry latrines / All dry latrines					Covered dry latrines / All dry latrines									
	VIP / All latrines					VIP / All latrines	21%	9%							
	Traditional latrines / All latrines	75%	83%			Traditional latrines / All latrines	79%	91%							
	Improved + traditional latrines / All latrines	94%	92%			Improved + traditional latrines / All latrines	100%	100%							
	Sewerage connection among flush/pour flush					Sewerage connection among flush/pour flush									
	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:									
<b>Comments</b>					<b>Comments</b>										

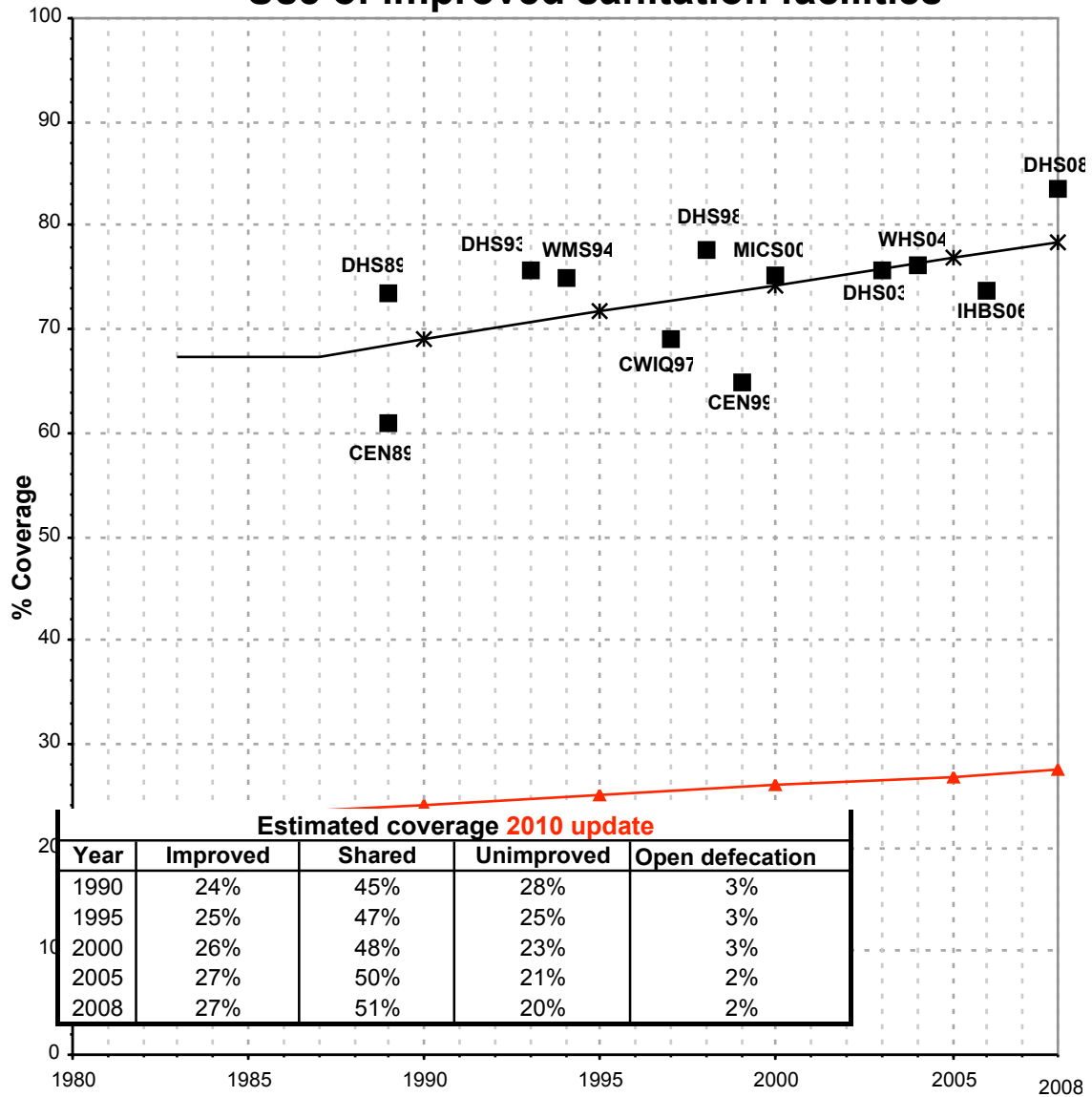






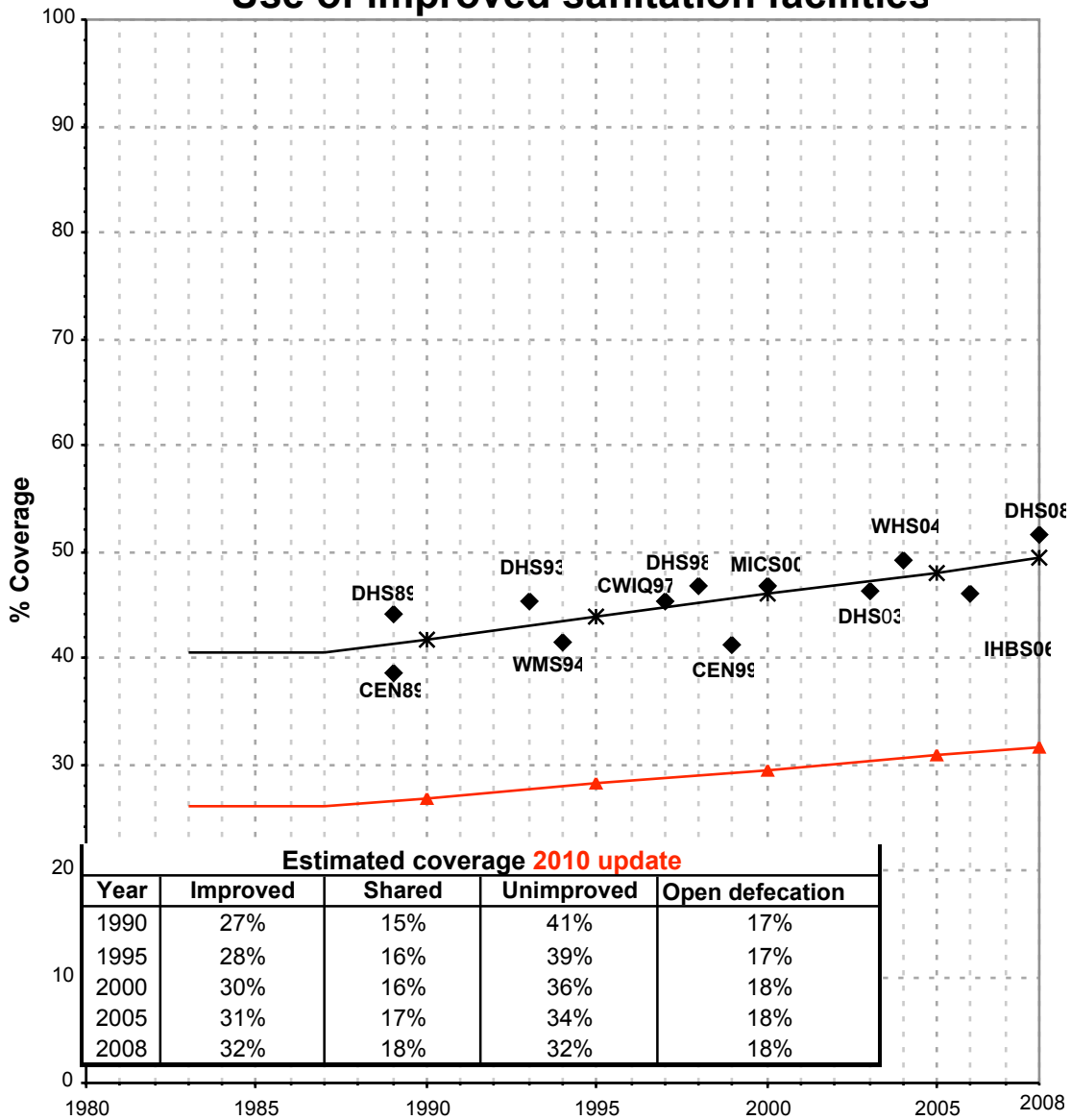
Kenya			SANITATION																
			URBAN								RURAL								
			Sewer connection		Total		Open defecation		Shared		Sewer connection		Total		Open defecation		Shared		
Source	Code	Year	Used	Not used	Used	Not used	Used	Not used	Used	Not used	Used	Not used	Used	Not used	Used	Not used	Used	Not used	
Census	CEN89	1989	28.7		60.8		3.6				0.4		38.5		24.8				
Demographic and Health Survey	DHS89	1989	42.0		73.5		3.4				0.7		44.0		0.4				
Demographic and Health Survey	DHS93	1993	40.4		75.6		2.1				0.8		45.4		20.3				
Demographic and Health Survey	DHS98	1998	38.7		77.5		2.6				1.1		46.7		18.6				
Census	CEN99	1999	23.0		64.9		4.3				0.9		41.2		22.6				
Global Water Supply and Sanitation Assessment 2000.	JMP99	1999		28.0		97.4						0.4		81.4					
Multiple Indicator Cluster Survey	MICS00	2000	34.3		75.3		1.3				3.0		46.8		17.2				
Demographic and Health Survey	DHS03	2003	35.1		75.6		3.7		57.1		0.9		46.3		20.4		33.7		
World Health Survey	WHS04	2004	36.3		76.3		1.0		79.9		1.3		49.2		9.1		35.6		
Welfare Monitoring Survey	WMS93	1993				78.2								80.0					
Welfare Monitoring Survey	WMS94	1994			74.9		2.4						41.5		24.1				
Core Welfare Monitoring Questionnaire	CWQ97	1997	28.3		69.0		5.3				0.5		45.3		16.6				
	IHBS	2006			73.8		2.6						45.9		18.8				
Demographic and Health Survey	DHS08	2008	33.8		83.5		1.1		58.2		0.6		51.5		17.7		37.9		

# Kenya - urban - Use of improved sanitation facilities



Used for the estimates  
  \* Estimates  
  JMP 2010 estimate

# Kenya - rural - Use of improved sanitation facilities



◆ Used for the estimates    ✱ Estimates    ▲ JMP 2010 estimate

# Sanitation

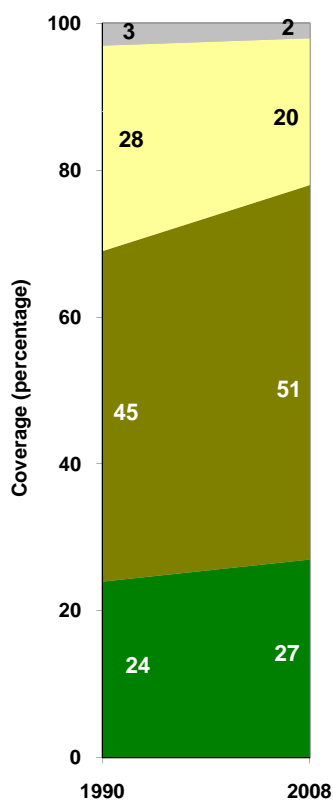
Kenya	Sanitation coverage estimates					
	Urban (%)		Rural (%)		Total (%)	
	1990	2008	1990	2008	1990	2008
Improved facilities	24	27	27	32	26	31
Shared facilities	45	51	15	18	20	25
Unimproved facilities	28	20	41	32	40	29
Open defecation	3	2	17	18	14	15

Source: WHO/UNICEF JMP, 2010

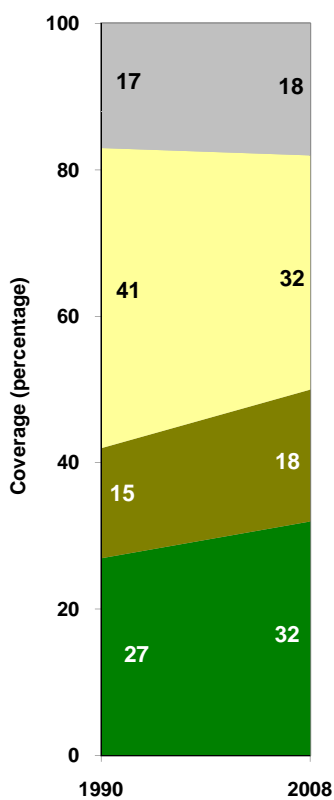
Kenya	Urban		Rural		Total	
	1990	2008	1990	2008	1990	2008
Population (x1000)	4,270	8,354	19,163	30,411	23,433	38,765

Source: UN / Population Division, 2008

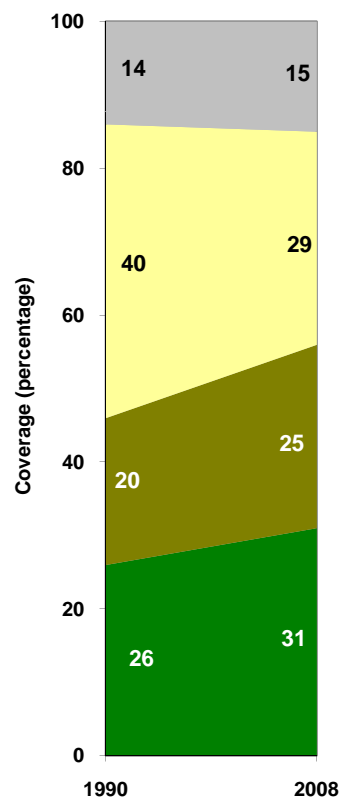
Urban sanitation trends



Rural sanitation trends



Total sanitation trends



■ Open defecation  
 ■ Unimproved facilities  
 ■ Shared facilities  
 ■ Improved facilities

■ Open defecation  
 ■ Unimproved facilities  
 ■ Shared facilities  
 ■ Improved facilities

■ Open defecation  
 ■ Unimproved facilities  
 ■ Shared facilities  
 ■ Improved facilities