

## 2.01 Access to functional housing with utilities

*Connection to water, sewerage and electricity services in Indigenous communities and functionality of Indigenous housing facilities required to support healthy living practices*

### Data sources

Data on water, sewerage and electricity services come from the 2001 Community Housing Infrastructure Needs Survey (CHINS) and data on the functionality of housing facilities required to support healthy living practices come from the 2002 National Aboriginal and Torres Strait Islander Social Survey.

#### Community Housing and Infrastructure Needs Survey (CHINS)

The CHINS collects data from all Aboriginal and Torres Strait Islander housing organisations and discrete Aboriginal and Torres Strait Islander communities in Australia. The ABS conducted the CHINS on behalf of the Aboriginal and Torres Strait Islander Commission (ATSIC) and the Office for Aboriginal and Torres Strait Islander Health (OATSIH) in 1999 and 2001. The most recent CHINS was conducted by the ABS in 2006 on behalf of the Australian Government Department of Families, Community Services and Indigenous Affairs (FaCSIA) through funding from FaCSIA and OATSIH. Results from this survey were published in April 2007. Data from the CHINS is held by FaCSIA and the ABS.

The 2001 information was collected on 616 Indigenous organisations which managed a total of 21,287 permanent dwellings. Information was also collected on 1,216 discrete Indigenous communities with a combined population of 108,000. Most communities were in very remote regions of Australia, with 73% having a population of less than 50 people.

#### National Aboriginal and Torres Strait Islander Social Survey (NATSISS)

The 2002 NATSISS collected information from 9,400 Indigenous Australians across all states and territories of Australia. The sample covered persons aged 15 years or over who were usual residents of private dwellings. It collected information on a wide range of subjects including family and culture, health, education, employment, income, financial stress, housing, as well as law and justice. The 2002 NATSISS is the second national social survey of Indigenous Australians conducted by the ABS. Selected non-Indigenous comparisons are available through the 2002 General Social Survey (GSS). The ABS plans to conduct the NATSISS every 6 years. The next survey is planned for 2008.

The NATSISS asks respondents about the functionality of various household facilities. These include whether a household has working facilities for washing people, working facilities for washing clothes/bedding, working facilities for storing/preparing food, and working sewerage facilities. These four data items cover the first four Healthy Living Practices.

#### Healthy Living Practices

The National Indigenous Housing Guide (FaCSIA 2003) lists nine Healthy Living Practices to help prevent the spread of infectious diseases. These are:

1. Washing people
2. Washing clothes and bedding
3. Removing waste safely
4. Improving nutrition: the ability to store, prepare and cook food
5. Reducing crowding and the potential for the spread of infectious disease
6. Reducing negative contact between people and animals, vermin or insects
7. Reducing the negative impact of dust
8. Controlling the temperature of the living environment
9. Reducing trauma (or minor injury) around the house and living environment.

## Data analyses

### Connection to services

CHINS collects data on water, sewerage and electricity in discrete Indigenous communities. Data from the 2001 Survey are presented below.

#### Water supply

- Of the 1,216 discrete Indigenous communities surveyed in the 2001 CHINS, approximately 2% reported they had no organised water supply. These communities without an organised water supply had a total population of 90 people (0.1%).
- Approximately 65% of Indigenous communities (784 communities), with a reported population of 66,531 people, reported bore water as their main source of water supply (Table 2.01.3).
- Approximately 5% of discrete Indigenous communities in Western Australia and 1% of communities in the Northern Territory were not connected to an organised water supply (Table 2.01.1).
- Approximately 10% of discrete Indigenous communities experienced five or more interruptions to water supply in the 12 months prior to survey and 40% of communities experienced interruptions to water supply greater than 24 hours (Table 2.01.1).

#### Drinking water failed testing

- Of all communities with a population of 50 or more, 17% of communities failed testing of drinking water. Nationally, 8% of people (6,245 people) in discrete Indigenous communities with a usual population of 50 or more and not connected to a nearby town water supply, lived in communities where drinking water was not sent away for testing in the 12 months before the 2001 CHINS (Table 2.01.4).
- Of those communities that were connected to a town water supply and reported sending their drinking water away for testing in the 12 months prior to survey (166 communities), 34% had provided samples that failed testing on at least one occasion.
- The proportion of communities for which drinking water failed testing in the 12 months prior to survey ranged from 10% in New South Wales and the Northern Territory to 32% in Western Australia.

- Of those communities that were connected to a town water supply and reported sending their drinking water away for testing in the 12 months prior to survey (166 communities), 34% had provided samples that failed testing on at least one occasion.
- The proportion of communities for which drinking water failed testing in the 12 months prior to survey ranged from 10% in New South Wales and the Northern Territory to 32% in Western Australia.
- Most people in discrete communities with a usual population of 50 or more not connected to nearby town supplies whose drinking water failed testing in the 2001 CHINS, lived in very remote areas (13,058 people) (Table 2.01.2).
- In 1991 and 2001, a similar proportion of discrete Indigenous communities with a population of 50 or more reported their drinking water failed testing in the previous 12 months (17%) (Figure 2.01.1). In New South Wales, Western Australia and South Australia, a higher proportion of Indigenous communities reported their drinking water failed testing in 2001 compared to 1999 and for Queensland and the Northern Territory, the reverse was true.

**Table 2.01.1: Water supply in discrete Indigenous communities, by state/territory, 2001**

	NSW		Qld		WA		SA		NT		Australia <sup>(a)</sup>			
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%		
Communities with no organised water supply <sup>(b)</sup>	—	—	1	0.7	13	4.6	—	0	7	1.1	21	1.7	90	0.1
Dwellings not connected to organised water supply <sup>(b)(c)</sup>	—	—	18	0.4	20	0.7	7	0.7	102	1.4	147	0.9	n.a.	n.a.
Communities experiencing 5 or more interruptions over 12-month period <sup>(d)</sup>	—	—	6	13.6	8	9.9	4	15.4	13	10.5	31	9.5	9,188	9.7
Communities experiencing interruptions to supply greater than 24 hours <sup>(d)</sup>	9	31.0	20	46.0	28	34.0	9	41.0	46	39.0	118	40.0	38,242	40.3
Communities with drinking water not tested in the 12 months prior to survey <sup>(d)(e)</sup>	1	2.0	13	29.5	3	3.7	1	3.8	25	20.2	43	13.1	6,245	8.0
Communities with drinking water failed testing in the 12 months prior to survey <sup>(d)(e)(f)</sup>	5	10.2	7	15.9	26	32.1	4	15.4	13	10.5	56	17.1	17,028	23.6
<b>Total<sup>(b)</sup></b>	<b>60</b>	<b>..</b>	<b>142</b>	<b>..</b>	<b>283</b>	<b>..</b>	<b>96</b>	<b>..</b>	<b>632</b>	<b>..</b>	<b>1 216</b>	<b>..</b>	<b>108,085</b>	<b>..</b>

(a) Victoria and Tasmania included in Australia for confidentiality reasons.

(b) Calculation based on all discrete Indigenous communities.

(c) Percentage calculated as a proportion out of all permanent dwellings on discrete Indigenous communities in the relevant jurisdiction.

(d) Discrete Indigenous communities with a usual population of 50 or more.

(e) Proportion calculated in relation to total communities not connected to a town supply.

(f) Testing means water was sent away for testing. Proportion calculated in relation to total communities not connected to a town supply where water was sent away for testing.

Sources: SCRGSP 2003; AIHW cat. no. HOU 129; ABS 2002.

**Table 2.01.2: Water supply in discrete Indigenous communities, by remoteness, 2001**

	Major cities		Inner regional		Outer regional		Remote		Very remote		Australia	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Number of communities with no organised water supply <sup>(a)</sup>	—	—	—	—	—	—	—	—	21	2.0	21	1.7
Number of dwellings not connected to organised water supply	—	—	—	—	3	n.a.	43	n.a.	101	n.a.	147	0.9
Aggregate population of communities experiencing 5 or more interruptions over 12-month period <sup>(b)</sup>	—	—	—	—	—	—	2,165	20.2	7,023	10.1	9,188	9.7
Number of communities experiencing interruptions to water supply greater than 2 days in the previous 12 months <sup>(b)(c)</sup>	—	—	3	16.7	8	20.5	6	15.0	61	27.1	78	23.9
Aggregate population of communities with drinking water not tested in the 12 months prior to survey <sup>(b)(d)</sup>	—	..	—	—	481	6.2	385	5.3	5,379	8.5	6,245	8.0
Aggregate population of communities with drinking water failed testing in the 12 months prior to survey <sup>(b)(d)(e)</sup>	—	..	370	100.0	1,700	23.4	1,900	27.7	13,058	22.6	17,028	23.6
<b>Total number of communities with population 50 or more</b>	<b>5</b>	<b>..</b>	<b>18</b>	<b>..</b>	<b>39</b>	<b>..</b>	<b>40</b>	<b>..</b>	<b>225</b>	<b>..</b>	<b>327</b>	<b>..</b>
<b>Total number of communities<sup>(a)</sup></b>	<b>5</b>	<b>..</b>	<b>19</b>	<b>..</b>	<b>53</b>	<b>..</b>	<b>109</b>	<b>..</b>	<b>1,030</b>	<b>..</b>	<b>1,216</b>	<b>..</b>

(a) All Indigenous communities.

(b) Discrete Indigenous communities with a usual population of 50 or more.

(c) Refers to restrictions on the amount of water used and/or purpose for which water can be used. Also includes periods where water may only be supplied or used at specified times during the day. Reason for restrictions include drought, normal dry season shortages, bills not paid, equipment breakdown, lack of storage containment, poor water quality, no fuel.

(d) Proportion calculated in relation to total communities not connected to a town supply.

(e) Testing means water was sent away for testing. Proportion calculated in relation to total communities not connected to a town supply where water was sent away for testing.

Sources: SCRGSP 2003; AIHW cat. no. HOU 129; ABS 2002; Aboriginal and Torres Strait Islander Commission (ATSIC), Community Housing and Infrastructure Needs Survey 2001, unpublished data.

**Table 2.01.3: Main source of drinking water, discrete Indigenous communities, by state/territory, 2001**

	NSW		Qld		WA		SA		NT		Australia <sup>(a)</sup>			
	Number of communities	%	Number of communities	%	Number of communities	%	Number of communities	%	Number of communities	%	Number of communities	%	Reported usual pop'n.	%
Connected to town supply <sup>(b)</sup>	47	78.3	9	6.3	37	13.1	10	10.4	81	12.8	186	15.3	18,134	16.8
Bore water	6	10.0	39	27.5	206	72.8	65	67.7	468	74.1	784	64.5	66,531	61.6
Rainwater tanks	1	1.7	20	14.1	2	0.7	20	20.8	9	1.4	53	4.4	4,017	3.7
River or reservoir	5	8.3	43	30.3	10	3.5	1	1.0	40	6.3	99	8.1	17,580	16.3
Well or spring	1	1.7	26	18.3	6	2.1	—	—	18	2.8	51	4.2	1,535	1.4
Other organised water supply	—	—	4	2.8	9	3.2	—	—	9	1.4	22	1.8	198	0.2
No organised water supply	—	—	1	0.7	13	4.6	—	—	7	1.1	21	1.7	90	0.1
<b>Total</b>	<b>60</b>	<b>100.0</b>	<b>142</b>	<b>100.0</b>	<b>283</b>	<b>100</b>	<b>96</b>	<b>100.0</b>	<b>632</b>	<b>100.0</b>	<b>1,216</b>	<b>100.0</b>	<b>108,085</b>	<b>100.0</b>

(a) Victoria and Tasmania included in Australia for confidentiality reasons.

(b) Town supply means that a discrete Indigenous community is not responsible for the water supply, which is often maintained by a water authority or local shire council.

Sources: SCRGSP 2003; ABS 2002.

Table 2.01.4: Testing of drinking water in discrete Indigenous communities with a usual population of 50 or more, by state/territory, 2001<sup>(a)</sup>

		Not connected to town supply			Connected to town supply <sup>(e)</sup>	Not stated (excl. communities with town supply)	Communities not connected to town supply where water is tested	Total communities not connected to town supply	Total communities
		Did not fail testing <sup>(b)</sup>	Failed testing <sup>(c)</sup>	Not tested <sup>(d)</sup>					
<b>Aggregate population of communities</b>									
NSW	No.	280	870	75	6,111	180	1,330	1,405	7,516
Qld	No.	18,266	5,739	2,832	1,693	1,300	25,305	28,137	29,830
WA	No.	5,663	4,350	335	3,075	—	10,013	10,348	13,423
SA	No.	2,165	670	150	1,229	159	2,994	3,144	4,373
NT	No.	25,770	5,342	2,853	4,183	1,370	32,482	35,335	39,518
<b>Aust<sup>(f)</sup></b>	<b>No.</b>	<b>52,144</b>	<b>17,028</b>	<b>6,245</b>	<b>16,570</b>	<b>3,009</b>	<b>72,181</b>	<b>78,426</b>	<b>94,996</b>
<b>Proportion of aggregate population of communities</b>									
NSW	%	21.1	65.4	5.3	81.3	2.4	65.4	18.7	100.0
Qld	%	72.2	22.7	10.1	5.7	4.4	22.7	94.3	100.0
WA	%	56.6	43.4	3.2	22.9	—	43.4	77.1	100.0
SA	%	72.3	22.4	4.8	28.1	3.6	22.4	71.9	100.0
NT	%	79.3	16.4	8.1	10.6	3.5	16.4	89.4	100.0
<b>Aust<sup>(f)</sup></b>	<b>%</b>	<b>72.2</b>	<b>23.6</b>	<b>8.0</b>	<b>17.4</b>	<b>3.2</b>	<b>23.6</b>	<b>82.6</b>	<b>100.0</b>
<b>Number of communities</b>									
NSW	No.	3	5	1	39	1	10	..	49
Qld	No.	16	7	13	7	1	37	..	44
WA	No.	28	26	3	24	—	57	..	81
SA	No.	12	4	1	7	2	19	..	26
NT	No.	51	13	25	32	3	92	..	124
<b>Aust<sup>(f)</sup></b>	<b>No.</b>	<b>110</b>	<b>56</b>	<b>43</b>	<b>111</b>	<b>7</b>	<b>216</b>	<b>..</b>	<b>327</b>

(continued)

**Table 2.01.4 (continued): Testing of drinking water in discrete Indigenous communities with a usual population of 50 or more, by state/territory, 2001<sup>(a)</sup>**

		Not connected to town supply			Connected to town supply <sup>(e)</sup>	Not stated (excl. communities with town supply)	Communities not connected to town supply where water is tested	Total communities not connected to town supply	Total communities
		Did not fail testing <sup>(b)</sup>	Failed testing <sup>(c)</sup>	Not tested <sup>(d)</sup>					
<b>Proportion of communities</b>									
NSW	%	6.1	10.2	2.0	79.6	2.0	20.4	..	100.0
Qld	%	36.4	15.9	29.5	15.9	2.3	84.1	..	100.0
WA	%	34.6	32.1	3.7	29.6	—	70.4	..	100.0
SA	%	46.2	15.4	3.8	26.9	7.7	73.1	..	100.0
NT	%	41.1	10.5	20.2	25.8	2.4	74.2	..	100.0
<b>Aust<sup>(f)</sup></b>	<b>%</b>	<b>33.6</b>	<b>17.1</b>	<b>13.1</b>	<b>33.9</b>	<b>2.1</b>	<b>66.1</b>	<b>..</b>	<b>100.0</b>

(a) In the 12 months prior to the survey.

(b) Testing means water was sent away for testing. Proportion calculated in relation to total communities not connected to a town supply where water was sent away for testing.

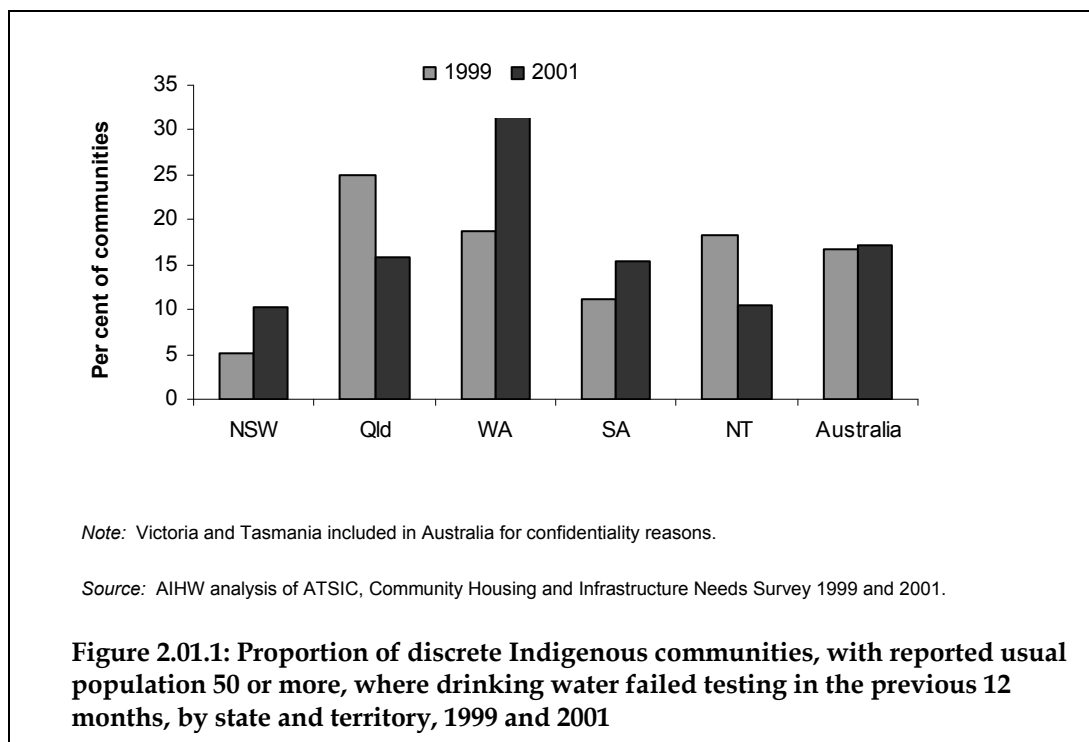
(c) Testing means water was sent away for testing. Proportion calculated in relation to total communities not connected to a town supply where water was sent away for testing.

(d) Testing means water was sent away for testing. Proportion calculated in relation to total communities not connected to a town supply.

(e) Town supply means that a discrete Indigenous community is not responsible for the water supply, which is often maintained by a water authority or local shire council. This category does not refer to communities with a reticulated water supply from a dam, river or other source, which the community is responsible for maintaining.

(f) Victoria and Tasmania included in Australia for confidentiality reasons.

Source: SCRGSP 2003.



## Water restrictions

- In 2001, more than one-third (35%) of communities with a usual population of 50 or more experienced water restrictions in the 12 months prior to survey (Table 2.01.5). Of the 114 communities that reported water restrictions, 31 (27%) reported restrictions on five or more occasions in the 12 months prior to survey.
- The proportion of communities reporting restrictions in 2001 was the same as in 1999 (35%), the proportion of people affected by these restrictions was higher in 2001 (42%) than in 1999 (35%) (Table 2.01.5).
- Approximately 16% of discrete Indigenous communities with a usual population of 50 or more reported water restrictions lasting one day, while 5% of communities reported water restrictions for more than 112 days (Table 2.01.6).

**Table 2.01.5: Water restrictions,<sup>(a)</sup> by size of community, 2001 and 1999**

	2001				1999		
	Communities with a population of			Total	Reported usual population	Total	Reported usual population
	50–99	100–199	200 or more				
<b>Experienced water restriction</b>							
Once	8	9	18	35	9,672	37	9,189
Twice	6	4	15	25	7,721	22	6,001
Three times	5	3	7	15	5,020	14	3,584
Four times	1	—	7	8	7,869	5	1,480
Five times or more	8	6	17	31	9,188	43	13,596
Total with water restriction	28	22	64	114	39,470	121	33,850
Did not experience water restriction	74	58	81	213	55,526	227	61,573
<b>All communities</b>	<b>102</b>	<b>80</b>	<b>145</b>	<b>327</b>	<b>94,996</b>	<b>348</b>	<b>95,423</b>

(a) In the 12 months prior to the survey.

Source: ABS 2002 (Community Housing and Infrastructure Needs Survey 1991 and 2001)

Table 2.01.6: Duration of water restrictions in discrete Indigenous communities with a usual population of 50 or more, by state/territory, 2001<sup>(a)</sup>

		1 day	2 days	3–7 days	8–14 days	15–28 days	29–56 days	57–112 days	>112 days	No restrictions	Not avail./not stated	Total
<b>Aggregate population of communities</b>												
NSW	No.	610	332	720	200	300	—	500	300	4,554	—	7,516
Qld	No.	6,481	3,700	3,503	3,700	350	—	172	2,410	9,514	—	29,830
SA	No.	1,030	749	720	—	130	—	—	200	1,544	—	4,373
WA	No.	470	563	1,315	200	560	—	70	1,864	8,321	60	13,423
NT	No.	5,987	2,729	6,998	4,485	786	—	260	290	17,333	650	39,518
<b>Aust<sup>(b)</sup></b>	<b>No.</b>	<b>14,778</b>	<b>8,130</b>	<b>13,256</b>	<b>8,664</b>	<b>2,126</b>	<b>—</b>	<b>1,002</b>	<b>5,064</b>	<b>41,266</b>	<b>710</b>	<b>94,996</b>
<b>Proportion of aggregate population of communities</b>												
NSW	%	8.9	4.4	—	2.2	4.4	—	4.4	4.4	71.1	—	100.0
Qld	%	15.9	4.5	13.6	6.8	2.3	—	4.5	13.6	38.6	—	100.0
SA	%	15.4	11.5	15.4	—	3.8	—	—	3.8	50.0	—	100.0
WA	%	4.9	6.2	9.9	2.5	4.9	—	1.2	9.9	59.3	1.2	100.0
NT	%	12.1	8.9	10.5	8.1	4.0	—	2.4	3.2	49.2	1.6	100.0
<b>Aust<sup>(b)</sup></b>	<b>%</b>	<b>10.7</b>	<b>7.3</b>	<b>10.7</b>	<b>5.2</b>	<b>4.0</b>	<b>—</b>	<b>2.4</b>	<b>6.4</b>	<b>52.3</b>	<b>0.9</b>	<b>100.0</b>
<b>Number of communities</b>												
NSW	No.	4	2	—	1	2	—	2	2	32	—	45
Qld	No.	7	2	6	3	1	—	2	6	17	—	44
SA	No.	4	3	4	—	1	—	—	1	13	—	26
WA	No.	4	5	8	2	4	—	1	8	48	1	81
NT	No.	15	11	13	10	5	—	3	4	61	2	124
<b>Aust<sup>(b)</sup></b>	<b>No.</b>	<b>35</b>	<b>24</b>	<b>35</b>	<b>17</b>	<b>13</b>	<b>—</b>	<b>8</b>	<b>21</b>	<b>171</b>	<b>3</b>	<b>327</b>

(continued)

**Table 2.01.6 (continued): Duration of water restrictions in discrete Indigenous communities with a usual population of 50 or more, by state/territory, 2001<sup>(a)</sup>**

		1 day	2 days	3–7 days	8–14 days	15–28 days	29–56 days	57–112 days	>112 days	No restrictions	Not avail./not stated	Total
<b>Proportion of communities</b>												
NSW	%	8.1	4.4	9.6	2.7	4.0	—	6.7	4.0	60.6	—	100.0
Qld	%	21.7	12.4	11.7	12.4	1.2	—	0.6	8.1	31.9	—	100.0
SA	%	23.6	17.1	16.5	0.0	3.0	—	0.0	4.6	35.3	—	100.0
WA	%	3.5	4.2	9.8	1.5	4.2	—	0.5	13.9	62.0	0.4	100.0
NT	%	15.2	6.9	17.7	11.3	2.0	—	0.7	0.7	43.9	1.6	100.0
<b>Aust<sup>(b)</sup></b>	<b>%</b>	<b>15.6</b>	<b>8.6</b>	<b>14.0</b>	<b>9.1</b>	<b>2.2</b>	<b>0.0</b>	<b>1.1</b>	<b>5.3</b>	<b>43.4</b>	<b>0.7</b>	<b>100.0</b>

(a) In the 12 months prior to the survey.

(b) Victoria and Tasmania included in Australia for confidentiality reasons.

Source: SCRGSP 2003 (Community Housing and Infrastructure Needs Survey 2001).

## **Water quality**

Data from a survey of small water utilities by the enHealth Council enables some comparison to be made between water quality in Indigenous communities and water quality in other small towns in Australia. There is a significant amount of missing data in the survey, so the results should be interpreted with caution. However, the data do allow some comparisons of water quality.

- The survey found that in 2003, approximately 18% of people (17,475) in Indigenous communities had drinking water that failed to meet microbiological testing guidelines, 17% of people (133,544) in non-Indigenous communities supplied by utilities with fewer than 3,000 customers drank water that failed microbiological guidelines and 41% of people (728,831) in non-Indigenous communities supplied by utilities with 3,000 to 10,000 customers had drinking water that failed microbiological guidelines (Table 2.01.7).

Table 2.01.7: Compliance with drinking water quality guidelines, Indigenous communities and other small towns, by state/territory, 2003

	Health-related chemicals <sup>(a)</sup>			Aesthetic chemicals <sup>(b)</sup>			Physical <sup>(c)</sup>			Microbiological			Total towns
	Fail	No data	Pass	Fail	No data	Pass	Fail	No data	Pass	Fail	No data	Pass	
<b>Indigenous communities (no. of communities,towns)</b>													
NSW	2	48	1	—	48	3	3	48	—	3	47	1	51
Vic	—	2	—	—	2	—	—	2	—	—	2	—	2
Qld	1	43	—	1	43	—	1	43	—	2	42	—	44
WA	—	97	1	—	97	1	1	97	—	—	97	1	98
SA	8	14	4	11	14	1	12	14	—	—	26	—	26
Tas	—	1	—	—	1	—	—	1	—	—	1	—	1
NT	1	8	120	7	8	114	13	8	108	29	100	—	129
<b>Aust</b>	<b>12</b>	<b>213</b>	<b>126</b>	<b>19</b>	<b>213</b>	<b>119</b>	<b>30</b>	<b>213</b>	<b>108</b>	<b>34</b>	<b>315</b>	<b>2</b>	<b>351</b>
<b>Indigenous communities (aggregate population)</b>													
NSW	288	7,586	120	—	—	7,994	408	—	7,586	343	7,591	60	7,994
Vic	—	250	—	—	—	250	—	—	250	—	250	—	250
Qld	400	29,267	—	400	—	29,267	400	—	29,267	1,960	27,707	—	29,667
WA	—	14,380	32	—	—	14,412	32	—	14,380	—	14,380	32	14,412
SA	1,360	1,490	768	2,128	—	1,490	2,128	—	1,490	—	3,618	—	3,618
Tas	—	70	—	—	—	70	—	—	70	—	70	—	70
NT	875	6,166	32,345	5,039	—	34,347	9,656	—	29,730	15,172	24,214	—	39,386
<b>Aust</b>	<b>2,923</b>	<b>59,209</b>	<b>33,265</b>	<b>7,567</b>	<b>—</b>	<b>87,830</b>	<b>12,624</b>	<b>—</b>	<b>82,773</b>	<b>17,475</b>	<b>77,830</b>	<b>92</b>	<b>95,397</b>

(continued)

Table 2.01.7 (continued): Compliance with drinking water quality guidelines, Indigenous communities and other small towns, by state/territory, 2003

	Health-related chemicals <sup>(a)</sup>			Aesthetic chemicals <sup>(b)</sup>			Physical <sup>(c)</sup>			Microbiological			Total towns
	Fail	No data	Pass	Fail	No data	Pass	Fail	No data	Pass	Fail	No data	Pass	
<b>Non-Indigenous utilities with &lt;3,000 people (no. of utilities)</b>													
NSW	2	76	20	5	78	15	20	78	—	21	70	7	98
Vic	52	102	176	196	49	85	269	61	—	133	161	36	330
Qld	2	334	100	17	334	85	101	334	1	61	375	—	436
WA	4	30	147	42	31	108	137	31	13	4	42	135	181
SA	—	142	—	40	7	95	127	7	8	—	142	—	142
Tas	—	46	—	3	41	2	—	46	—	—	45	1	46
NT	1	—	13	10	—	4	13	—	1	4	10	—	14
<b>Aust</b>	<b>61</b>	<b>730</b>	<b>456</b>	<b>313</b>	<b>540</b>	<b>394</b>	<b>667</b>	<b>557</b>	<b>23</b>	<b>223</b>	<b>845</b>	<b>179</b>	<b>1,247</b>
<b>Non-Indigenous utilities with &lt;3,000 people (aggregate population)</b>													
NSW	2,580	46,698	17,309	3,060	—	63,527	16,589	—	49,998	17,113	44,834	4,640	66,587
Vic	37,553	70,309	112,965	125,446	—	95,381	176,322	—	44,505	77,647	122,823	20,357	220,827
Qld	2,760	196,596	73,313	8,520	—	264,149	75,943	—	196,726	36,884	235,785	—	272,669
WA	427	9,529	103,277	23,873	—	89,360	95,234	—	17,999	209	23,843	89,181	113,233
SA	—	76,867	—	22,818	—	54,049	74,257	—	2,610	—	76,867	—	76,867
Tas	—	31,264	—	1,070	—	30,194	—	—	31,264	—	31,014	250	31,264
NT	1,350	—	5,654	4,832	—	2,172	6,504	—	500	1,691	5,313	—	7,004
<b>Aust</b>	<b>44,670</b>	<b>431,263</b>	<b>312,518</b>	<b>189,619</b>	<b>—</b>	<b>598,832</b>	<b>444,849</b>	<b>—</b>	<b>343,602</b>	<b>133,544</b>	<b>540,479</b>	<b>114,428</b>	<b>788,451</b>

(continued)

Table 2.01.7 (continued): Compliance with drinking water quality guidelines, Indigenous communities and other small towns, by state/territory, 2003

	Health-related chemicals <sup>(a)</sup>			Aesthetic chemicals <sup>(b)</sup>			Physical <sup>(c)</sup>			Microbiological			Total towns
	Fail	No data	Pass	Fail	No data	Pass	Fail	No data	Pass	Fail	No data	Pass	
<b>Non-Indigenous utilities with 3,000–10,000 people (no. of utilities)</b>													
NSW	7	29	24	3	33	24	27	33	—	19	34	7	60
Vic	9	10	26	26	4	15	37	8	—	16	22	7	45
Qld	—	31	20	3	31	17	20	31	—	17	34	—	51
WA	1	2	20	3	2	18	19	2	2	—	5	18	23
SA	—	6	—	2	—	4	6	—	—	—	6	—	6
Tas	—	2	—	—	2	—	—	2	—	—	2	—	2
NT	1	1	1	1	1	1	2	1	—	1	2	—	3
<b>Aust</b>	<b>18</b>	<b>81</b>	<b>91</b>	<b>38</b>	<b>73</b>	<b>79</b>	<b>111</b>	<b>77</b>	<b>2</b>	<b>53</b>	<b>105</b>	<b>32</b>	<b>190</b>
<b>Non-Indigenous utilities with 3,000–10,000 people (aggregate population)</b>													
NSW	94,728	346,380	507,973	203,733	—	745,348	530,543	—	418,538	556,812	318,819	73,450	949,081
Vic	52,162	99,501	168,586	146,161	—	174,088	236,010	—	84,239	76,009	166,146	78,094	320,249
Qld	—	148,136	120,210	24,400	—	243,946	120,210	—	148,136	92,510	175,836	—	268,346
WA	5,551	51,000	105,986	11,637	—	150,900	96,744	—	65,793	—	68,165	94,372	162,537
SA	—	24,568	—	9,391	—	15,177	24,568	—	—	—	24,568	—	24,568
Tas	—	6,010	—	—	—	6,010	—	—	6,010	—	6,010	—	6,010
NT	3,500	20,000	10,000	3,500	—	30,000	13,500	—	20,000	3,500	30,000	—	33,500
<b>Aust</b>	<b>155,941</b>	<b>695,595</b>	<b>912,755</b>	<b>398,822</b>	—	<b>1,365,469</b>	<b>1,021,575</b>	—	<b>742,716</b>	<b>728,831</b>	<b>789,544</b>	<b>245,916</b>	<b>1,764,291</b>

(a) Arsenic, boron, barium, cadmium, chromium, fluoride, mercury, iodine, nickel, nitrates, nitrites, lead, selenium and uranium.

(b) Aluminium, chlorine, copper, iron, electrical conductivity, manganese, sodium, sulphates, total dissolved solids and zinc.

(c) pH and turbidity.

Source: SCRGSP 2003 - E-health Council Survey data.

## **Electricity source and supply**

- Community generators were the main source of electricity reported for 480 Indigenous communities (39%) followed by state grid or transmitted supply reported for 260 communities (21%). Communities with a reported population of 50 or more were more likely to be connected to a state grid or a transmitted supply than smaller communities (Table 2.01.8).
- No organised electricity supply was reported for 80 discrete Indigenous communities in 2001 (7% of all communities surveyed) (Table 2.01.8).
- The proportion of communities with no organised electricity supply ranged from 0% in New South Wales to 45% in the Northern Territory (Table 2.01.9).
- All dwellings not connected to an organised electricity supply were located in outer regional, remote and very remote areas, with the highest numbers in very remote areas (Table 2.01.10).
- In 2001, interruptions to electricity supply in the 12 months prior to survey occurred in 82% (267) of the 327 discrete Indigenous communities with a reported population of 50 or more (Table 2.01.11). This was similar to that in 1999 when interruptions were reported for 81% (281) of communities.

Table 2.01.8: Main source of electricity, all communities, by state/territory, 2001

	State grid/transmitted supply	Community generators	Domestic generators	Solar	Solar hybrid	Other organised electricity supply	No organised electricity supply	Total
<b>Communities with a population of less than 50</b>								
<b>State/territory</b>								
NSW	11	—	—	—	—	—	—	11
Qld	6	67	11	2	—	—	12	98
WA	21	94	51	3	10	2	21	202
SA	16	12	4	7	21	8	2	70
NT	56	146	97	73	90	2	44	508
<b>Australia<sup>(a)</sup></b>	<b>110</b>	<b>319</b>	<b>163</b>	<b>85</b>	<b>121</b>	<b>12</b>	<b>79</b>	<b>889</b>
<b>Communities with a population of 50 or more</b>								
<b>State/territory</b>								
NSW	49	—	—	—	—	—	—	49
Qld	11	30	2	—	1	—	—	44
WA	27	53	1	—	—	—	—	81
SA	12	12	—	—	1	1	—	26
NT	49	66	1	5	2	—	1	124
<b>Australia<sup>(a)</sup></b>	<b>150</b>	<b>161</b>	<b>4</b>	<b>5</b>	<b>4</b>	<b>2</b>	<b>1</b>	<b>327</b>
<b>All communities</b>								
<b>State/territory</b>								
NSW	60	—	—	—	—	—	—	60
Qld	17	97	13	2	1	—	12	142
WA	48	147	52	3	10	2	21	283
SA	28	24	4	7	22	9	2	96
NT	105	212	98	78	92	2	45	632
<b>Australia<sup>(a)</sup></b>	<b>260</b>	<b>480</b>	<b>167</b>	<b>90</b>	<b>125</b>	<b>14</b>	<b>80</b>	<b>1, 216</b>

(a) Victoria and Tasmania included in Australia for confidentiality reasons.

Source: ABS 2002: Community Housing and Infrastructure Needs Survey 2001.

**Table 2.01.9: Electricity supply in discrete Indigenous communities, by state/territory, 2001**

	NSW		Qld		WA		SA		NT		Australia <sup>(a)</sup>			
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	Reported usual population	%
Communities with no organised electricity supply <sup>(b)</sup>	—	—	12	8.5	21	7.4	2	2.1	45	7.1	80	6.6	681	0.6
Dwellings not connected to organised electricity supply <sup>(b)(c)</sup>	—	—	10	0.2	30	1	22	2.1	195	2.7	257	1.5	n.a.	n.a.
Communities experiencing 20 or more interruptions over 12 month period <sup>(d)</sup>	4	8.2	11	25.0	21	25.9	2	7.7	15	12.1	54	16.5	17,113	18.0
Communities experiencing interruptions to supply greater than 24 hours <sup>(d)</sup>	6	12.2	4	9.1	20	24.7	4	15.4	7	5.6	42	12.8	9,313	9.8
<i>Communities with population 50 or more</i>	49	..	44	..	81	..	26	..	124	..	327	..	94,996	..
<b>Total no. of communities<sup>(b)</sup></b>	<b>60</b>	<b>..</b>	<b>142</b>	<b>..</b>	<b>283</b>	<b>..</b>	<b>96</b>	<b>..</b>	<b>632</b>	<b>..</b>	<b>1 216</b>	<b>..</b>	<b>108,085</b>	<b>..</b>

(a) Victoria and Tasmania included in Australia for confidentiality reasons.

(b) All Indigenous communities.

(c) Percentage calculated as a proportion out of all permanent dwellings on discrete Indigenous communities in the relevant jurisdiction.

(d) Discrete Indigenous communities with a usual population of 50 or more.

Sources: SCRGSP 2003; AIHW cat. no. HOU 129; ABS 2002: ATSI, Community Housing and Infrastructure Needs Survey 2001, unpublished data.

**Table 2.01.10: Electricity supply in discrete Indigenous communities, by remoteness area, 2001**

	Major cities		Inner regional		Outer regional		Remote		Very remote		Australia			
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	Reported usual population	%
No organised electricity supply <sup>(a)</sup>	—	—	—	—	1	1.9	3	2.8	76	7.4	80	6.6	681	0.6
Number of dwellings not connected to organised electricity supply <sup>(a)</sup>	—	—	—	—	9	17.0	43	39.4	205	19.9	257	1.5	n.a.	n.a.
Communities experiencing 20 or more interruptions over 12-month period <sup>(b)</sup>	—	—	1	5.6	4	10.3	2	5.0	47	20.9	54	16.5	17,113	18.0
Communities experiencing interruptions to supply greater than 24 hours <sup>(b)</sup>	1	20.0	1	5.6	7	17.9	5	12.5	28	12.4	42	12.8	9,313	9.8
<b>Total number of communities with population 50 or more</b>	<b>5</b>	<b>..</b>	<b>18</b>	<b>..</b>	<b>39</b>	<b>..</b>	<b>40</b>	<b>..</b>	<b>225</b>	<b>..</b>	<b>327</b>	<b>..</b>	<b>94,996</b>	<b>..</b>
<b>Total number of communities<sup>(a)</sup></b>	<b>5</b>	<b>..</b>	<b>19</b>	<b>..</b>	<b>53</b>	<b>..</b>	<b>109</b>	<b>..</b>	<b>1,030</b>	<b>..</b>	<b>1,216</b>	<b>..</b>	<b>108,085</b>	<b>..</b>

(a) All Indigenous communities.

(b) Discrete Indigenous communities with a usual population of 50 or more.

Sources: SCRGSP 2003; AIHW cat. no. HOU 129; ABS 2002; ATSIIC, Community Housing and Infrastructure Needs Survey 2001, unpublished data.

## **Electricity interruptions**

- Over one-third (37%) of affected communities experienced less than five electricity interruptions, while 20% experienced 20 or more interruptions in the 12 months prior to survey.
- In 2001, approximately 13% of communities experienced interruptions to electricity supply lasting longer than 24 hours (Table 2.01.10). This was similar to that reported in 1999 (14%) (Figure 2.01.2).

**Table 2.01.11: Electricity interruptions,<sup>(a)</sup> communities with a population of 50 or more and reported usual population, 2001 and 1999**

Electricity interruptions	2001						1999					
	Communities with a population of			Total	%	Reported usual population	%	Total	%	Reported usual population	%	
	50–99	100–199	200 or more									
1–4 times	35	32	33	100	30.6	25,403	26.7	120	34.5	25,159	26.4	
5–9 times	19	11	39	69	21.1	23,508	24.7	55	15.8	25,812	27.1	
10–14 times	6	7	21	34	10.4	13,246	13.9	33	9.5	10,345	10.8	
15–19 times	2	1	5	8	2.4	2,750	2.9	16	4.6	5,221	5.5	
20 times or more	13	13	28	54	16.5	17,113	18.0	57	16.4	18,490	19.4	
<b>Total with electricity interruption<sup>(b)</sup></b>	<b>75</b>	<b>64</b>	<b>128</b>	<b>267</b>	<b>81.7</b>	<b>82,670</b>	<b>87.0</b>	<b>281</b>	<b>80.7</b>	<b>84,027</b>	<b>88.1</b>	
Did not experience electricity interruption	26	16	17	59	18.0	12,276	12.9	62	17.8	10,897	11.4	
<b>All communities<sup>(c)(d)</sup></b>	<b>102</b>	<b>80</b>	<b>145</b>	<b>327</b>	<b>100.0</b>	<b>94,996</b>	<b>100.0</b>	<b>348</b>	<b>100.0</b>	<b>95,423</b>	<b>100.0</b>	

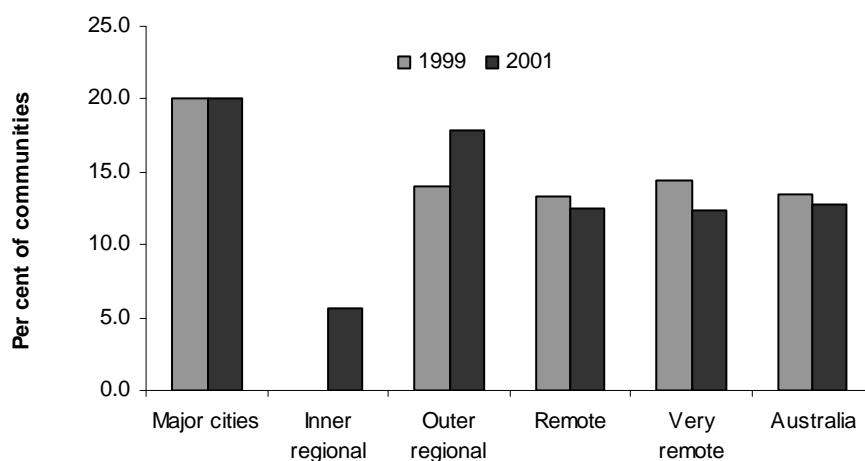
(a) In the 12 months prior to the survey.

(b) Includes 'Number of electricity interruptions' not stated.

(c) Includes communities with no organised electricity supply.

(d) Includes 'Whether experienced electricity interruption' not stated.

Source: AIHW analysis of Community Housing and Infrastructure Needs Survey 2001.



Source: AIHW analysis of ATSIIC, Community Housing and Infrastructure Needs Survey 1999 and 2001.

**Figure 2.01.2: Proportion of discrete Indigenous communities, with reported usual population 50 or more, experiencing interruptions to electricity supply greater than 24 hours in the previous 12 months, by remoteness, 1999 and 2001**

## Sewerage systems

- In 2001, the majority of people living in discrete Indigenous communities had a community water-borne sewerage system or septic tanks.
- Approximately 1,110 people living in discrete Indigenous communities did not have an organised sewerage system. All of these people lived in communities with a population of less than 50 (Table 2.01.12b). A further 3,573 people relied on pit toilets or pan toilets for their sewerage.
- The proportion of people living in communities that did not have an organised sewerage system ranged from 0% in South Australia to 1.9% in the Northern Territory and from 0% in major cities and inner regional areas to 1.2% in very remote areas (Table 2.01.12a).
- The most common form of sewerage system in discrete Indigenous communities with 50 or more people reporting 20 or more sewerage system leaks in the previous 12 months was septic tanks with leach drains.
- Approximately 8% of all discrete Indigenous communities in 2001 had no organised sewerage system. This ranged from 2% in New South Wales to 9% in the Northern Territory (Table 2.01.14). A further 18% of communities relied on pit toilets. Approximately 2% of dwellings were not connected to an organised sewerage system.
- Approximately 0.3% of communities in outer regional areas had no organised sewerage system, 0.7% in remote areas and 1.2% in very remote areas (Table 2.01.15).

## Sewerage system overflows and leakages

- Sewerage system overflows or leakages in the 12 months prior to survey occurred in 47% of the 327 Indigenous communities with a usual population of 50 or more.

- Sewerage leakages and overflows were most common in discrete Indigenous communities with septic tanks with leach drains as the main sewerage system (60% experienced leaks or overflows) and least common in communities connected to nearby town sewerage systems (34%) (Table 2.01.13). In 2001, 12% of Indigenous communities with a reported population of 50 or more experienced 10 or more sewerage overflows or leakages in the last 12 months. This was slightly lower than that reported in 1999 (15%). The proportion of communities which experienced 10 or more sewerage overflows or leakages in the last 12 months was higher in 1999 than in 2001 across all remoteness areas (Figure 2.01.3).

Table 2.01.12a: Number of people in discrete Indigenous communities with different types of sewerage systems, by state/territory, 2001

	Town system	Community water borne	Septic tanks: common eff. disp.	Septic tanks: leach drains	Pit toilets	Pan toilets	Other organised system	No organised system	Total
<b>Communities with a population of less than 50</b>									
NSW	152	—	95	—	—	—	—	8	255
Queensland	25	—	77	326	484	30	99	90	1,131
WA	40	10	206	2,652	130	—	—	97	3,135
SA	—	—	106	463	236	18	30	—	853
NT	237	72	372	4,081	1,993	—	45	915	7,715
<b>Australia<sup>(a)</sup></b>	<b>454</b>	<b>82</b>	<b>856</b>	<b>7,522</b>	<b>2,843</b>	<b>48</b>	<b>174</b>	<b>1,110</b>	<b>13,089</b>
<b>Communities with a population of 50 or more</b>									
NSW	4,944	170	1,772	630	—	—	—	—	7,516
Queensland	5,729	15,619	2,840	5,642	—	—	—	—	29,830
WA	1,085	6,703	2,939	2,626	—	—	70	—	13,423
SA	350	540	2,319	1,064	100	—	—	—	4,373
NT	3,662	27,225	3,650	4,399	582	—	—	—	39,518
<b>Australia<sup>(a)</sup></b>	<b>15,827</b>	<b>50,536</b>	<b>13,520</b>	<b>14,361</b>	<b>682</b>	<b>—</b>	<b>70</b>	<b>—</b>	<b>94,996</b>
<b>All communities</b>									
NSW	5,096	170	1,867	630	—	—	—	8	7,771
Queensland	5,754	15,619	2,917	5,968	484	30	99	90	30,961
WA	1,125	6,713	3,145	5,278	130	—	70	97	16,558
SA	350	540	2,425	1,527	336	18	30	—	5,226
NT	3,899	27,297	4,022	8,480	2,575	—	45	915	47,233
<b>Australia<sup>(a)</sup></b>	<b>16,281</b>	<b>50,618</b>	<b>14,376</b>	<b>21,883</b>	<b>3,525</b>	<b>48</b>	<b>244</b>	<b>1,110</b>	<b>108,085</b>

(a) Victoria and Tasmania included in Australia for confidentiality reasons.

Source: SCRGSP 2003: Community Housing and Infrastructure Needs Survey, 2001.

Table 2.01.12b: Number of people in discrete Indigenous communities with different types of sewerage systems, by remoteness area, 2001

	Town system	Community water borne	Septic tanks: common eff. disp.	Septic tanks: leach drains	Pit toilets	Pan toilets	Other organised system	No organised system	Total
<b>Communities with a population of less than 50</b>									
Major cities	—	—	—	—	—	—	—	—	—
Inner regional	20	—	—	—	—	—	—	—	20
Outer regional	44	—	60	151	—	—	—	38	293
Remote	205	—	113	829	153	48	—	85	1,433
Very remote	185	82	683	6,542	2,690	—	174	987	11,343
<b>Australia</b>	<b>454</b>	<b>82</b>	<b>856</b>	<b>7,522</b>	<b>2,843</b>	<b>48</b>	<b>174</b>	<b>1,110</b>	<b>13,089</b>
<b>Communities with a population of 50 or more</b>									
Major cities	645	—	—	—	—	—	—	—	645
Inner regional	2,195	259	152	150	—	—	—	—	2,756
Outer regional	5,560	3,580	1,545	860	—	—	—	—	11,545
Remote	2,134	5,564	2,570	445	—	—	—	—	10,713
Very remote	5,293	41,133	9,253	12,906	682	—	70	—	69,337
<b>Australia</b>	<b>15,827</b>	<b>50,536</b>	<b>13,520</b>	<b>14,361</b>	<b>682</b>	<b>—</b>	<b>70</b>	<b>—</b>	<b>94,996</b>
<b>All communities</b>									
Major cities	645	—	—	—	—	—	—	—	645
Inner regional	2,215	259	152	150	—	—	—	—	2,776
Outer regional	5,604	3,580	1,605	1,011	—	—	—	38	11,838
Remote	2,339	5,564	2,683	1,274	153	48	—	85	12,146
Very remote	5,478	41,215	9,936	19,448	3,372	—	244	987	80,680
<b>Australia</b>	<b>16,281</b>	<b>50,618</b>	<b>14,376</b>	<b>21,883</b>	<b>3,525</b>	<b>48</b>	<b>244</b>	<b>1,110</b>	<b>108,085</b>

(a) Victoria and Tasmania included in Australia for confidentiality reasons.

Source: SCRGSP 2003: Community Housing and Infrastructure Needs Survey 2001.

**Table 2.01.13: Discrete Indigenous communities with a usual population of 50 or more reporting sewerage system leakages and overflows, by type of sewerage system, 2001<sup>(a)</sup>**

		Frequency of sewerage system leakages or overflows				Total with overflows	No overflows	Total communities
		1-4 times	5-9 times	10-14 times	20 times or more			
<b>Number of communities</b>								
Town system	No.	15	7	1	2	25	48	73
Water borne	No.	26	8	4	3	41	50	92
Septic tank common effluent	No.	20	3	1	6	30	32	62
Septic tank leach drain	No.	24	8	6	17	55	36	91
Pit toilets	No.	4	—	—	—	4	4	8
No system	No.	—	—	—	—	—	1	1
Total	No.	89	26	12	28	155	171	327
<b>Proportion of communities</b>								
Town system	%	20.5	9.6	1.4	2.7	34.2	65.8	100.0
Water borne	%	28.3	8.7	4.3	3.3	44.6	54.3	100.0
Septic tank common effluent	%	32.3	4.8	1.6	9.7	48.4	51.6	100.0
Septic tank leach drain	%	26.4	8.8	6.6	18.7	60.4	39.6	100.0
Pit toilets	%	50.0	—	—	—	50.0	50.0	100.0
No system	%	—	—	—	—	—	100.0	100.0
Total	%	27.2	8.0	3.7	8.6	47.4	52.3	100.0

(a) In the 12 months prior to survey.

Source: SCRGSP 2003: Community Housing and Infrastructure Needs Survey, 2001.

**Table 2.01.14: Sewerage in discrete Indigenous communities, by state/territory, 2001**

	NSW		Qld		WA		SA		NT		Australia <sup>(a)</sup>			
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	Reported usual population	%
No organised sewerage system <sup>(b)</sup>	1	1.7	10	7.0	23	8.1	—	—	57	9.0	91	7.5	1,110	1.0
Pit toilets	—	—	42	29.6	11	3.9	28	29.2	143	22.6	224	18.4	3,525	3.3
Dwellings not connected to organised sewerage system <sup>(b)(c)</sup>	—	—	9	0.2	31	1	—	—	261	3.6	301	1.8	n.a.	n.a.
Communities experiencing 10 or more overflows or leakages over 12-month period <sup>(d)</sup>	2	4.1	13	29.5	8	9.9	—	—	17	13.7	40	12.2	10,281	10.8
Communities experiencing overflows or leakages for longer than 48 hours <sup>(d)</sup>	11	22.4	18	40.9	23	28.4	6	23.1	35	28.2	94	28.7	n.a.	n.a.
<b>Total number of communities with population 50 or more</b>	<b>49</b>	<b>..</b>	<b>44</b>	<b>..</b>	<b>81</b>	<b>..</b>	<b>26</b>	<b>..</b>	<b>124</b>	<b>..</b>	<b>327</b>	<b>..</b>	<b>94,996</b>	<b>..</b>
<b>Total number of communities<sup>(b)</sup></b>	<b>60</b>	<b>..</b>	<b>142</b>	<b>..</b>	<b>283</b>	<b>..</b>	<b>96</b>	<b>..</b>	<b>632</b>	<b>..</b>	<b>1,216</b>	<b>..</b>	<b>108,085</b>	<b>..</b>

(a) Victoria and Tasmania included in Australia for confidentiality reasons.

(b) All Indigenous communities.

(c) Percentage calculated as a proportion out of all communities with permanent dwellings on discrete Indigenous communities in relevant jurisdiction.

(d) Discrete Indigenous communities with a usual population of 50 or more.

Source: SCRGSP 2003; AIHW cat. no. HOU 129; ABS 2002.

**Table 2.01.15: Sewerage in discrete Indigenous communities, by remoteness, 2001**

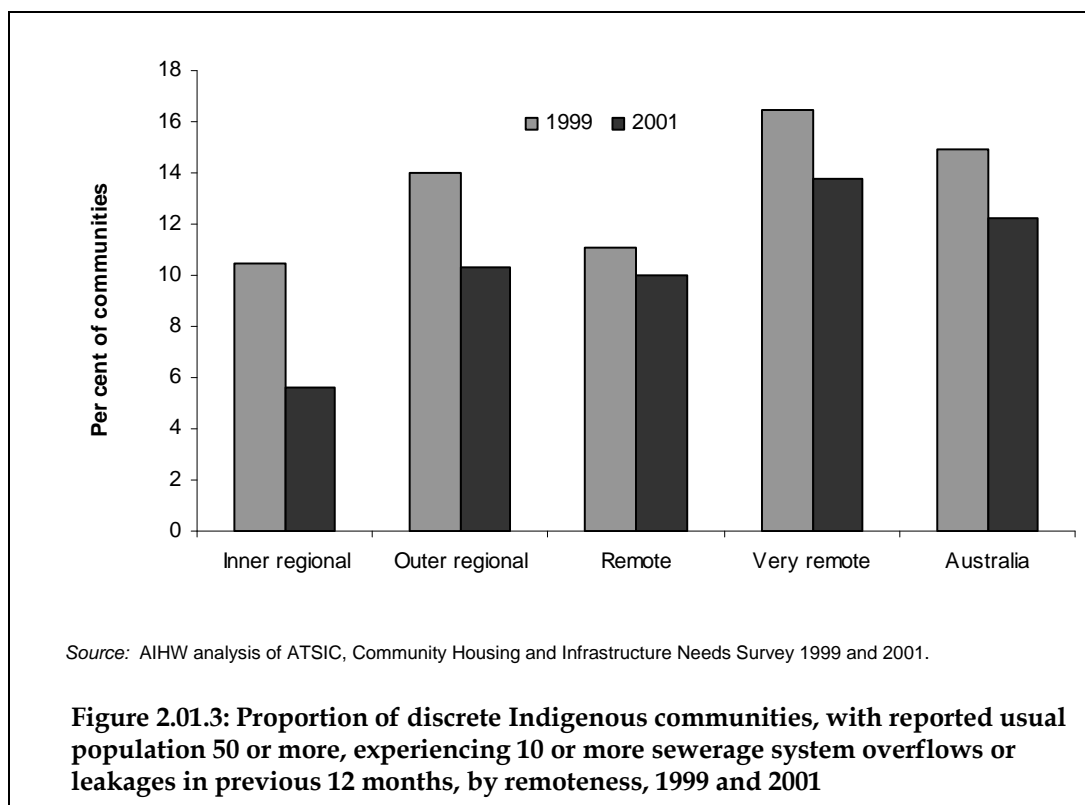
	Major cities		Inner regional		Outer regional		Remote		Very remote		Australia			
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	Reported usual population	%
Communities with no organised sewerage system <sup>(a)</sup>	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	91	7.5	1,110	1.0
Dwellings not connected to organised sewerage system <sup>(a)(b)</sup>	—	—	—	—	31	n.a.	4	n.a.	266	n.a.	301	1.8	n.a.	n.a.
Communities experiencing 10 or more overflows or leakages over 12-month period <sup>(c)</sup>	—	—	1	5.6	4	10.3	4	10.0	31	13.8	40	12.2	10,281	10.8
Communities experiencing overflows or leakages for longer than 48 hours <sup>(c)</sup>	1	20.0	2	11.1	12	30.8	6	15.0	73	32.4	94	28.7	n.a.	n.a.
<b>Total number of communities with population of 50 or more</b>	<b>5</b>	<b>..</b>	<b>18</b>	<b>..</b>	<b>39</b>	<b>..</b>	<b>40</b>	<b>..</b>	<b>225</b>	<b>..</b>	<b>327</b>	<b>..</b>	94,996	<b>..</b>
<b>Total number of communities<sup>(a)</sup></b>	<b>5</b>	<b>..</b>	<b>19</b>	<b>..</b>	<b>53</b>	<b>..</b>	<b>109</b>	<b>..</b>	<b>1,030</b>	<b>..</b>	<b>1,216</b>	<b>..</b>	<b>108,085</b>	<b>..</b>

(a) All Indigenous communities.

(b) Number and percentage of dwellings in discrete Indigenous communities not connected to sewerage system.

(c) Discrete Indigenous communities with a usual population of 50 or more.

Source: SCRGSP 2003; AIHW cat. no. HOU 129; ABS 2002; ATSI, Community Housing and Infrastructure Needs Survey 2001, unpublished data.



## Healthy Living Practices

Connection to services does not necessarily mean that the housing facilities (for example, toilets, baths, showers, washing machines, cooking facilities and refrigerators) are functional. The 2002 NATSISS collected information on the functionality of key household facilities that are required to support healthy living practices. This included the functionality of facilities required to support the following four Healthy Living Practices – washing people; washing clothes and bedding; removing waste safely; and improving nutrition: the ability to store, prepare and cook food. These data were self-reported by people in the households.

- In 2002, approximately 99% of Indigenous households reported that they had working facilities for washing people, 98% reported working facilities for washing clothes/bedding, 95% reported working facilities for storing/preparing food and 99% reported working sewerage systems (Table 2.01.16).
- The Northern Territory had the highest proportion of Indigenous households that reported that they did not have working facilities for washing people (6%), washing clothes/bedding (7%), storing/preparing food (24%) or working sewerage facilities (7%).
- The proportion of Indigenous households that reported that they did not have working facilities for washing people, washing clothes/bedding, storing/preparing food and working sewerage facilities was higher in remote areas (3.9%, 4.1%, 16.7% and 5.1% respectively) than non-remote areas (0.4%, 1.7%, 2.5% and 0.3% respectively) (Table 2.01.17, Figure 2.01.4).
- A higher proportion of Indigenous households with three or more dependent children aged 0–4 years reported that they did not have working facilities for washing people or for storing/preparing food (3% and 16% respectively) than Indigenous households with no dependent children (1% and 4% respectively). The proportion of Indigenous households without working facilities for washing clothing/bedding and working sewerage facilities was

similar for households with none, 1, 2 and 3 or more dependent children aged 0–4 years (Table 2.01.18).

### **Fixing Houses for Better Health data**

*The Department of Families, Community Services and Indigenous Affairs (FaCSIA) funds the Fixing Houses for Better Health program to improve the houses and household living conditions on rural and remote Indigenous communities across Australia. The program uses a housing for health approach where houses are surveyed to determine how well health hardware and other features of the house are functioning, and then arranges for the non-functioning elements to be fixed. The health hardware includes items such as electrical fittings, taps, showers and drainage. The housing for health philosophy is that there is no data collection without services.*

*The Fixing Houses for Better Health database includes a large amount of detailed information on the existence and functionality of over 200 different household components. Functionality is rated at two different points in time – before and after maintenance work has been completed. Data on nearly 4,000 dwellings in rural and remote Indigenous communities that have been assessed and repaired under the program are included in the database. This is not a representative sample of dwellings as communities either choose or are selected to participate in the program.*

*There are a large number of variables in the database and for reporting purposes these have been grouped into 36 factors that assist in better assessing an individual's ability to complete healthy living practices in their house. These factors are described as critical or non-critical Healthy Living Practices.*

*The critical Healthy Living Practices are:*

- *Power, water, waste connected*
- *Safety: electrical system is safe*
- *Safety: gas supply is safe*
- *Safety: structure of and access to the house is safe*
- *Safety: fire egress is available and safe*
- *Shower working*
- *Washing children: basin/bath/tub working*
- *Laundry services OK*
- *Flush toilet working*
- *Waste removal from all other areas working*
- *Ability to store, prepare and cook food*
- *the proportion of households with shower working increased from 33% to 82%*
- *the proportion of households with facilities for washing children working increased from 45% to 70%*
- *the proportion of households with laundry facilities working increased from 28% to 73%*
- *the proportion of households with flush toilet working increased from 57% to 88%*
- *the proportion of households with all drains working from 16% to 49%*
- *the proportion of households with facilities to store, prepare and cook food increased from 4% to 8%.*

*Source: FaCSIA 2006.*



**Table 2.01.17: Indigenous households: access to functional facilities required to support the first four Healthy Living Practices, by remoteness, 2002<sup>(a)</sup>**

	Unit	Non-remote				Remote			Total
		Major cities	Inner regional	Outer regional	Total	Remote	Very remote	Total	
		<b>Estimate</b>							
Has working facilities for washing people <sup>(a)</sup>	%	99.6	100.0	99.2	99.6	98.6	94.3	96.1	99.0
Does not have working facilities for washing people	%	0.4 <sup>(b)</sup>	—	0.8 <sup>(c)</sup>	0.4 <sup>(c)</sup>	1.4 <sup>(c)</sup>	5.7 <sup>(c)</sup>	3.9 <sup>(c)</sup>	1.0 <sup>(c)</sup>
Has working facilities for washing clothes/bedding <sup>(d)</sup>	%	97.7	98.4	99.2	98.3	98.3	94.1	95.9	97.9
Does not have working facilities for washing clothes/bedding	%	2.3 <sup>(c)</sup>	1.6 <sup>(b)</sup>	0.8 <sup>(c)</sup>	1.7	1.7 <sup>(c)</sup>	5.9 <sup>(c)</sup>	4.1 <sup>(c)</sup>	2.1
Has working facilities for storing/preparing food <sup>(e)</sup>	%	97.3	97.4	97.8	97.5	94.7	75.2	83.3	95.0
Does not have working facilities for storing/preparing food	%	2.7 <sup>(c)</sup>	2.6 <sup>(c)</sup>	2.2	2.5	5.3	24.8	16.7	5.0
Has working sewerage facilities <sup>(f)</sup>	%	99.6	n.p	99.6	99.7	98.0	92.7	94.9	98.8
Does not have working sewerage facilities	%	0.4 <sup>(b)</sup>	n.p	0.4 <sup>(c)</sup>	0.3	2.0 <sup>(c)</sup>	7.3 <sup>(c)</sup>	5.1 <sup>(c)</sup>	1.2 <sup>(c)</sup>
<b>All Indigenous households</b>	<b>%</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>All Indigenous households (number)</b>	<b>'000</b>	<b>59.0</b>	<b>37.8</b>	<b>39.7</b>	<b>136.5</b>	<b>12.1</b>	<b>17.0</b>	<b>29.2</b>	<b>165.7</b>

(a) Comprises households with a working bath or shower.

(b) Estimate has a relative standard error of greater than 50% and is considered too unreliable for general use.

(c) Estimate has a relative standard error of between 25 and 50% and should be used with caution.

(d) Comprises households with working washing machine and/or laundry tub.

(e) Comprises households with working stove/oven/cooking facilities and a kitchen sink and a working refrigerator.

(f) Comprises households with a working toilet.

Source: SCRGSP 2003: ABS NATSISS 2002.

**Table 2.01.18: Indigenous households: access to functional facilities required to support the first four Healthy Living Practices, by number of children under 4 years in household, 2002**

	Number of dependants aged 0–4 years in house									
	None		1		2		3+		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Has working facilities for washing people <sup>(a)</sup>	115,542	99.0	29,474	98.8	15,820	99.2	3,146	97.1	163,981	99.0
Does not have working facilities for washing people	1,127	1.0	347	1.2	125	0.8	95	2.9	1,693	1.0
Has working facilities for washing clothes/bedding <sup>(b)</sup>	113,924	97.6	29,239	98.1	15,824	99.2	3,212	99.1	162,200	97.9
Does not have working facilities for washing clothes/bedding	2,744	2.4	581	1.9	120	0.8	28	0.9	3,474	2.1
Has working facilities for storing/preparing food <sup>(c)</sup>	111,760	95.8	28,322	95.0	14,527	91.1	2,730	84.2	157,340	95.0
Does not have working facilities for storing/preparing food	4,908	4.2	1,498	5.0	1,417	8.9	510	15.8	8,334	5.0
Has working sewerage facilities <sup>(d)</sup>	115,428	98.9	29,286	98.2	15,821	99.2	3,199	98.7	163,735	98.8
Does not have working sewerage facilities	1,240	1.1	534	1.8	123	0.8	41	1.3	1,939	1.2

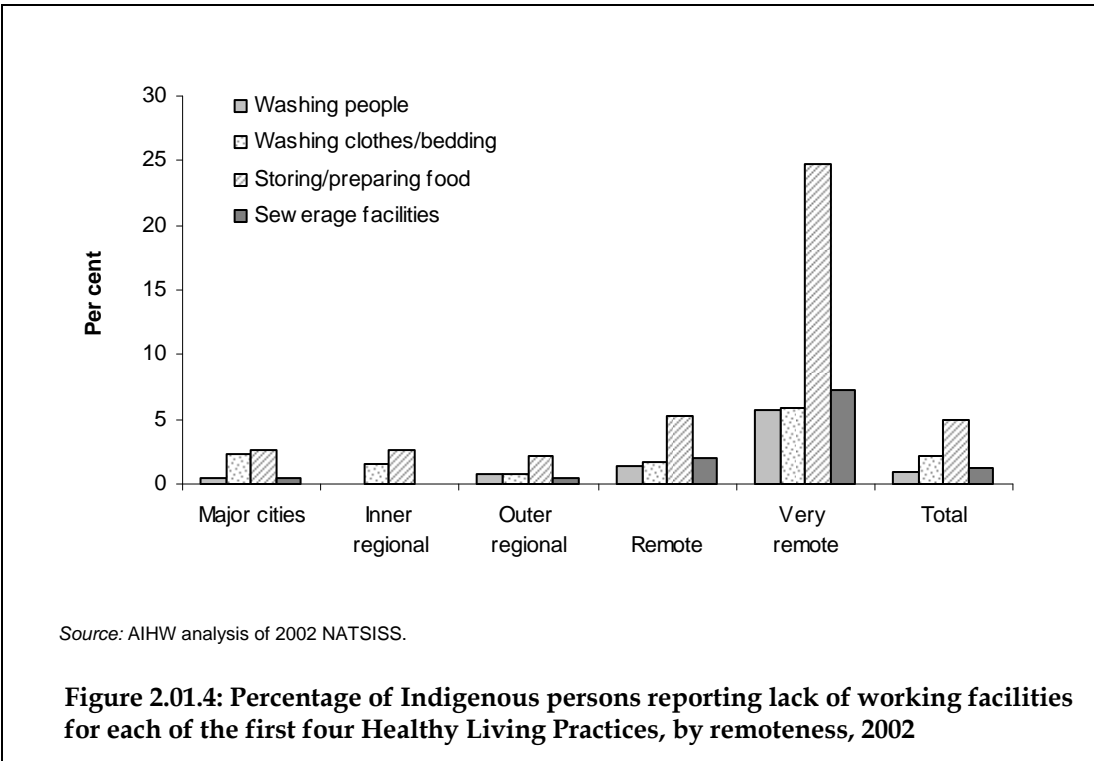
(a) Comprises households with a working bath or shower.

(b) Comprises households with working washing machine and/or laundry tub.

(c) Comprises households with working stove/oven/cooking facilities and a kitchen sink and a working refrigerator.

(d) Comprises households with a working toilet.

Source: AIHW analysis of 2002 NATSISS.



## **Data quality issues**

### **Community Housing and Infrastructure Needs Survey (CHINS)**

*The 2001 CHINS collected data on dwelling conditions for permanent dwellings in discrete Indigenous communities that were managed by Indigenous housing organisations. In 2001 CHINS information was collected on 616 Indigenous organisations which managed a total of 21,287 permanent dwellings. The majority of those dwellings were located in the Northern Territory (6,715), Queensland (5,673), New South Wales (4,079) and Western Australia (3,273) (ABS 2002).*

*The CHINS survey only covers discrete Indigenous communities, including approximately 108,000 Aboriginal and Torres Strait Islanders or 24% of the total Indigenous population. CHINS data is collected every five years. The data are collected from key personnel in Indigenous communities and housing organisations knowledgeable about housing and infrastructure issues.*

*The estimates are not subject to sampling error as the CHINS was designed as a complete enumeration of discrete Indigenous communities. However, data could not be obtained from a small number of communities. In addition, the community population was often estimated by community representatives without reference to records.*

*Further information on the CHINS can be found in the national publication (ABS 2002).*

### **National Aboriginal and Torres Strait Islander Social Survey (NATSISS)**

*The NATSISS uses the standard Indigenous status question. The NATSISS sample was specifically designed to select a representative sample of Aboriginal and Torres Strait Islander Australians and thus overcomes the problems inherent in most national surveys with small and unrepresentative Indigenous samples. As with other surveys, the NATSISS is subject to sampling and non-sampling errors. Calculations of standard errors and significance testing help to identify the accuracy of the estimates and differences.*

*Information recorded in this survey is essentially 'as reported' by respondents. The ABS makes every effort to collect accurate information from respondents, particularly through careful questionnaire design, pre-testing of questionnaires, use of trained interviewers and assistance from Indigenous facilitators. Nevertheless, some responses may be affected by imperfect recall or individual interpretation of survey questions (ABS 2004).*

*Non-Indigenous comparisons are available through the General Social Survey. Time series comparisons are available through the 1994 National Aboriginal and Torres Strait Islander Survey.*

*In remote communities there were some modifications to the NATSISS content in order to address language and cultural appropriateness in traditional communities, as well as to assist respondents in understanding the concepts. Some questions were excluded and some reworded. Also, paper forms were used in communities in remote areas and computer-assisted interview (CAI) instruments were used in non-remote areas. The CAI process included built in edit checks and sequencing.*

*Further information on NATSISS data quality issues can be found in the national publication (ABS 2004).*

### **National Reporting Framework for Indigenous Housing administrative data collection**

*The National Reporting Framework (NRF) for Indigenous Housing was developed to provide a framework for reporting across all Indigenous housing programs and on the implementation and outcomes of Building a Better Future: Indigenous Housing to 2010. The NRF comprises a set of 38 performance indicators for national reporting on Indigenous housing. The NRF includes the Indigenous-specific programs Indigenous Community Housing and State Owned and Managed Indigenous Housing, Indigenous access to mainstream housing programs, as well as broader measures such as tenure type and homelessness.*

*(continued)*

### **Data quality issues (continued)**

*The NRF administrative data collection, which is essentially a data collection for Indigenous community housing, provides another potential source of data for future reporting of the Health Performance Framework. For the purposes of this measure, the NRF data collection collects data on the number and proportion of dwellings not connected to water, sewerage and electricity. The data definitions used were the same as those used in CHINS (ABS & AIHW 2005).*

*There is a commitment by jurisdictions to further develop the administrative data on Indigenous community housing through the collection of data at the household and dwelling level. The Agreement on National Indigenous Housing Information provides a framework for improving the quality of the national data on Indigenous housing.*

## **References**

ABS 2002. Housing and infrastructure in Aboriginal and Torres Strait Islander communities, Australia 2001. ABS cat. no. 4710.0. Canberra: ABS.

ABS 2004. National Aboriginal and Torres Strait Islander Social Survey 2002. ABS cat. no. 4714.0. Canberra: ABS.

ABS & AIHW (Australian Bureau of Statistics and Australian Institute of Health and Welfare) 2005. The health and welfare of Australia's Aboriginal and Torres Strait Islander people 2005. ABS cat. no. 4704.0; AIHW cat. no. IHW 14. Canberra: ABS & AIHW.

FaCSIA (Department of Families, Community Services and Indigenous Affairs) 2003, National Indigenous Housing Guide. 2nd ed. Canberra: FaCSIA.

FaCSIA 2006. Evaluation of Fixing Houses for Better Health projects 2, 3 and 4. Canberra: FaCSIA.

NHMRC (National Health and Medical Research Council) 2004, Australian drinking water guidelines. Canberra: NHMRC.

SCRGSP (Steering Committee for the Review of Government Service Provision) 2003. Overcoming Indigenous disadvantage: key indicators 2003. Canberra: Productivity Commission.