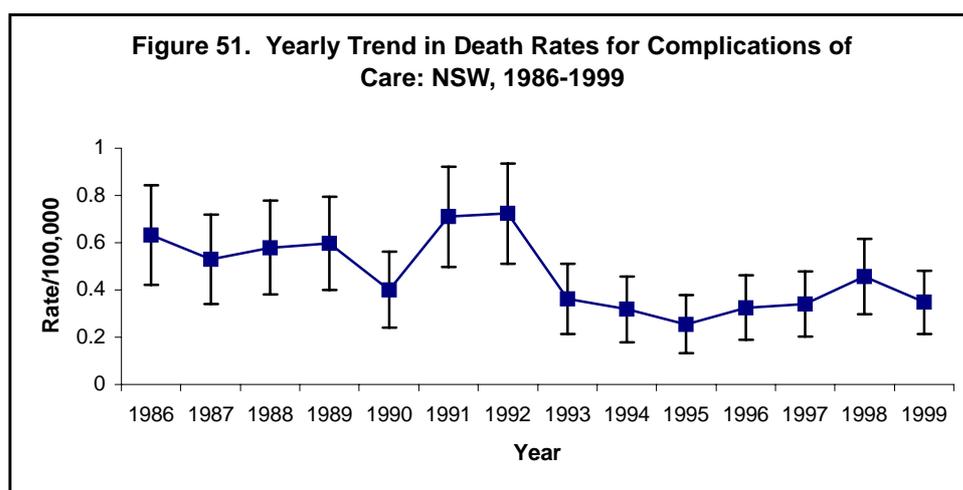


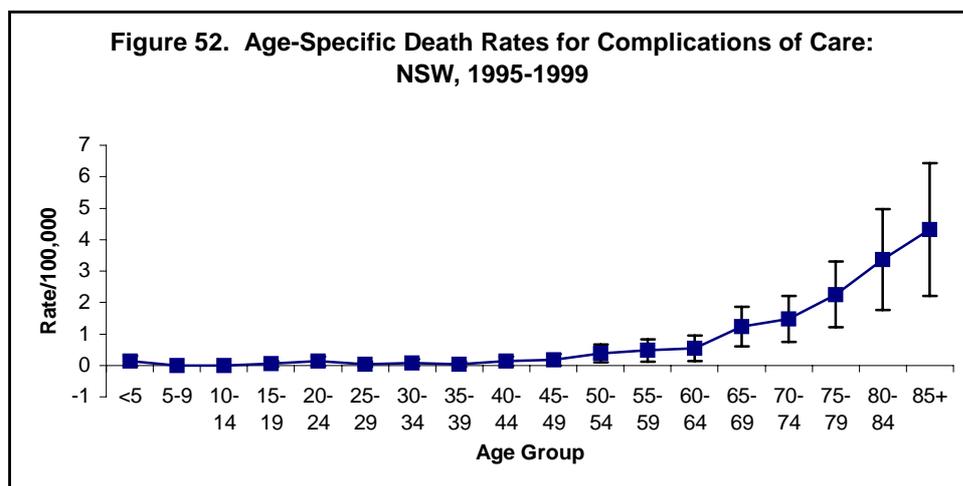
12.0 COMPLICATIONS OF CARE

12.1 Deaths due to Complications of Care

The death rate due to complications of care showed higher rates between 1991 and 1992, a statistically significant decrease from 1992 to 1995 and then relatively stable rates to 1999 (Figure 51). Between 1995 and 1999, 121 people died from complications of care, at a rate of 0.3 people /100,000 (Table 4).



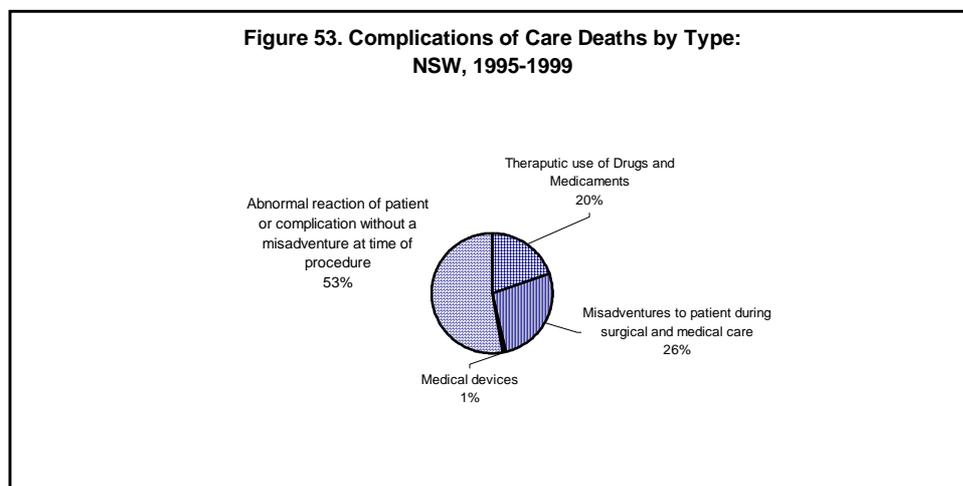
Of the 121 complications of care deaths in NSW between 1995 and 1999, 67 percent of these cases were 65 years of age and older. Figure 52 illustrates the age-specific death rates for



complications of care.

People aged 65 years and older were at greatest risk of dying as a result of an injury caused by a complication of care between 1995 and 1999.

The following chart (see Figure 53) shows the percentage of deaths for various types of complications of care.



Abnormal reaction of the patient or a complication without a mention of a misadventure at time of procedure caused the majority (53 %) of complication of care deaths from 1995 to 1999. Misadventures to the patient during surgical and medical care caused an additional 26 percent of the deaths.

Table 35. Number of Complications of care Deaths and Death Rates/100,000* by Nature of the Complication of care: NSW, 1995-1999

Injury Mechanism	Total Number	Rate /100,000	Number of Males	Male Rate /100,000	Number of Females	Female Rate /100,000
Abnormal reaction of patient or complication without a misadventure at time of procedure	64	0.2	34	0.2	30	0.2
Misadventures to patient during surgical and medical care	32	0.1	18	0.1	14	0.1
Therapeutic use of Drugs and Medicaments	24	0.1	7	0.0	17	0.1
Medical devices	1	0.0	0	0.0	1	0.0

*Death rates have been age-adjusted using the 1991 Australian census population

Table 35 shows the number of complications of care deaths and death rates by the nature of the complication of care or all persons, males and females from 1995 to 1999. Males and females were roughly equivalent in the number of complication of care deaths due to an abnormal reaction or a complication. Females accounted for 71 percent of complication of care deaths caused by therapeutic use of drugs and medicaments, although the numbers are quite small.

Table 36 shows complications of care deaths by age group and type of event in NSW for 1995-1999. Two types of complications of care account for the leading causes of complications of care deaths across all age groups - misadventures to patient during surgical and medical care and abnormal reactions of patient or complication without a misadventure at time of procedure. Abnormal reactions or complications were the leading cause of complications of care deaths in people over 45 years of age. Abnormal reactions also accounted for a small number of deaths in 15 to 34 year olds and misadventures accounted for small numbers of deaths in children under age one year and adults aged 35-44 years.

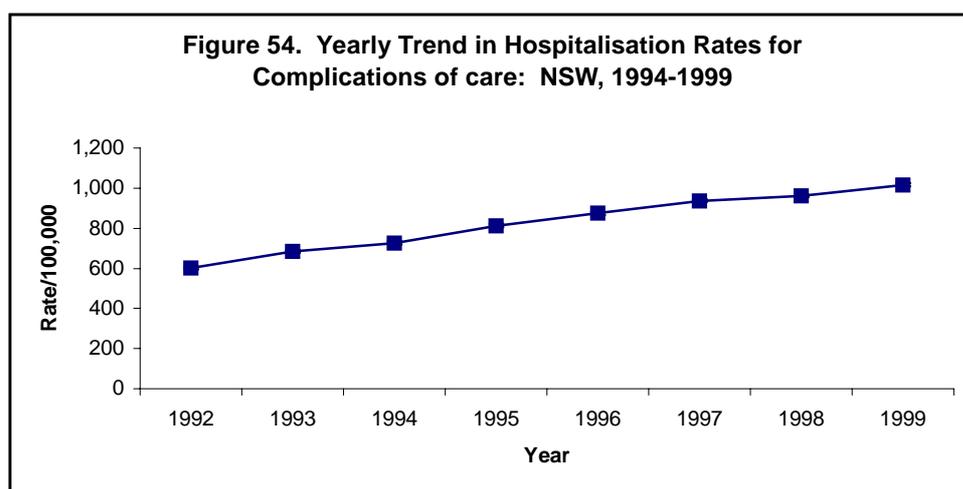
Table 36. Complications of care Deaths by Age Group and Type of Event: NSW, 1995-1999*

	<1	1-4	5-9	10-14	15-24	25-34	35-44	45-54	55-64	65+	Total
1	Misadventures to patient during surgical and medical care #				Abnormal reaction of patient or complication without a misadventure at time of procedure #	Abnormal reaction of patient or complication without a misadventure at time of procedure #	Misadventures to patient during surgical and medical care #	Abnormal reaction of patient or complication without a misadventure at time of procedure 6	Abnormal reaction of patient or complication without a misadventure at time of procedure 9	Abnormal reaction of patient or complication without a misadventure at time of procedure 45	Abnormal reaction of patient or complication without a misadventure at time of procedure 64
2					Misadventures to patient during surgical and medical care #	Misadventures to patient during surgical and medical care #	Therapeutic use of Drugs and Medicaments #	Therapeutic use of Drugs and Medicaments #	Therapeutic use of Drugs and Medicaments #	Misadventures to patient during surgical and medical care 20	Misadventures to patient during surgical and medical care 32
3					Therapeutic use of Drugs and Medicaments #			Misadventures to patient during surgical and medical care #	Misadventures to patient during surgical and medical care #	Therapeutic use of Drugs and Medicaments 16	Therapeutic use of Drugs and Medicaments 24
4										Failure of medical device #	Failure of medical device #

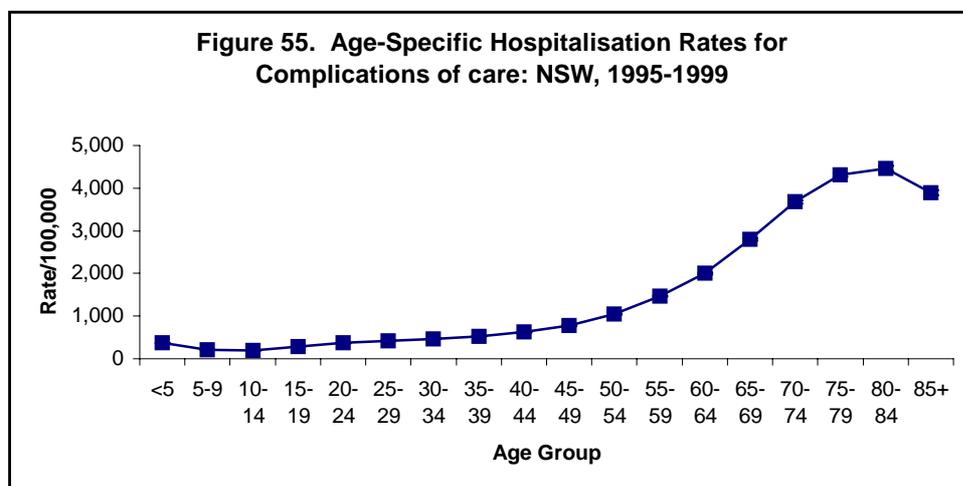
Cell size less than five cases

12.2 Hospitalisations due to Complications of care

The complications of care hospitalisation rate showed a statistically significant increase between 1992 and 1999 (Figure 54). Between 1995 and 1999, 309,102 people were hospitalised as a result of complications of care, at a rate of 922.1 people /100,000 and 51 percent were male (Table 6).



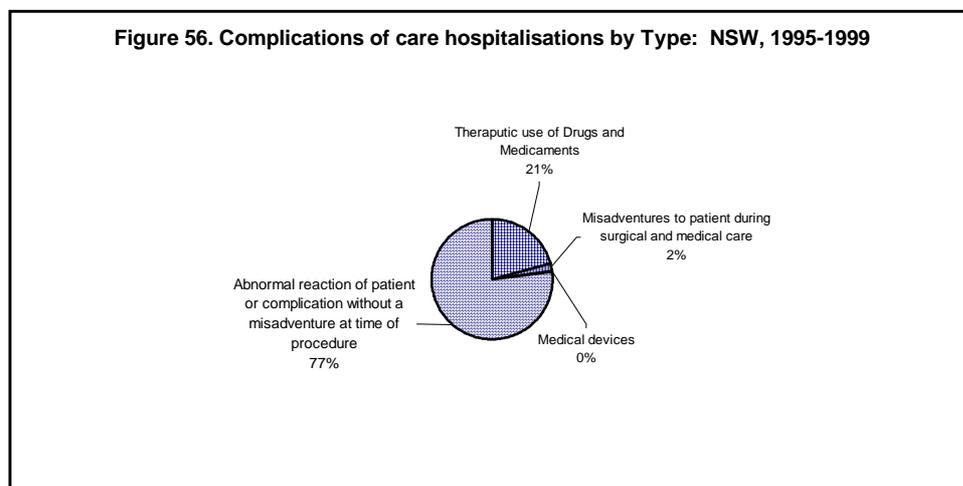
Of the 309,102 complications of care hospitalisations in NSW between 1995 and 1999, 31 percent of these cases were 65 years of age and older. Figure 55 illustrates the age-specific



hospitalisation rates for complications of care.

People aged 50 years and older were at greatest risk of being hospitalised as a result of an injury caused by a complication of care between 1995 and 1999.

The following chart shows the percentage of hospitalisations for various types of complications of care (see Figure 56).



Abnormal reaction of the patient or a complication without a mention of a misadventure at time of procedure (77 %) caused the majority of complication of care hospitalisations from 1995 to 1999. Therapeutic use of drugs and medicaments caused an additional 21 percent of the hospitalisations. Medical misadventures accounted for only a tiny proportion of all complication of care deaths.

Table 37. Number of Complications of care Hospitalisations and Hospitalisation Rates/100,000* by Nature of the Complication of care: NSW, 1995-1999

Injury Mechanism	Total Number	Rate /100,000	Number of Males	Male Rate /100,000	Number of Females	Female Rate /100,000
Abnormal reaction of patient or complication without a misadventure at time of procedure	237,784	709.3	125,466	801.5	112,311	641.1
Therapeutic use of Drugs and Medicaments	64480	192.3	27755	179.5	36723	205.2
Misadventures to patient during surgical and medical care	6218	18.7	2325	14.8	3893	22.9
Medical Devices	620	1.9	307	2.0	313	1.8

*Hospitalisation rates have been age-adjusted using the 1991 Australian census population

Table 37 shows the number of complication of care hospitalisations and hospitalisation rates by the nature of the complication of care for all persons, males and females from 1995 to 1999. Males had a higher number of complication of care hospitalisations due to an abnormal reaction or a complication, but females were more likely to be hospitalised for a medical misadventure or therapeutic use of drugs and medicaments. Females accounted for 57 percent of complication of care deaths caused by therapeutic use of drugs and medicaments.

Table 38 shows complications of care hospitalisations by age group and type of event in NSW for 1995-1999. Abnormal reactions or complications were the leading cause of complication of care hospitalisation in all age groups from under one year to age 65 years and older. The cases due to abnormal reactions or complications are at least double the next leading cause for all age groups and even more for some age groups. Therapeutic use of drugs and medicaments was the second most common type of complication of medical care for all age groups, but accounted for considerably smaller numbers of cases followed by smaller numbers of medical misadventures. There was a clear increase in the number of cases with increasing age for each type of complication of care, probably reflecting increasing usage of the medical system with age.

Table 38. Complications of care Hospitalisations by Age Group and Type of Event: NSW, 1995-1999

	<1	1-4	5-9	10-14	15-24	25-34	35-44	45-54	55-64	65+	Total
1	Abnormal reaction of patient or complication without a misadventure at time of procedure 2,235	Abnormal reaction of patient or complication without a misadventure at time of procedure 3,639	Abnormal reaction of patient or complication without a misadventure at time of procedure 3,327	Abnormal reaction of patient or complication without a misadventure at time of procedure 2,975	Abnormal reaction of patient or complication without a misadventure at time of procedure 10,134	Abnormal reaction of patient or complication without a misadventure at time of procedure 15,830	Abnormal reaction of patient or complication without a misadventure at time of procedure 21,805	Abnormal reaction of patient or complication without a misadventure at time of procedure 28,649	Abnormal reaction of patient or complication without a misadventure at time of procedure 37,527	Abnormal reaction of patient or complication without a misadventure at time of procedure 111,663	Abnormal reaction of patient or complication without a misadventure at time of procedure 237,784
2	Therapeutic use of Drugs and Medicaments 653	Therapeutic use of Drugs and Medicaments 1,369	Therapeutic use of Drugs and Medicaments 1,217	Therapeutic use of Drugs and Medicaments 1,181	Therapeutic use of Drugs and Medicaments 4,233	Therapeutic use of Drugs and Medicaments 4,997	Therapeutic use of Drugs and Medicaments 4,981	Therapeutic use of Drugs and Medicaments 6,665	Therapeutic use of Drugs and Medicaments 8,511	Therapeutic use of Drugs and Medicaments 30,673	Therapeutic use of Drugs and Medicaments 64,480
3	Misadventures to patient during surgical and medical care 150	Misadventures to patient during surgical and medical care 67	Misadventures to patient during surgical and medical care 49	Misadventures to patient during surgical and medical care 57	Misadventures to patient during surgical and medical care 281	Misadventures to patient during surgical and medical care 718	Misadventures to patient during surgical and medical care 766	Misadventures to patient during surgical and medical care 782	Misadventures to patient during surgical and medical care 863	Misadventures to patient during surgical and medical care 2,485	Misadventures to patient during surgical and medical care 6,218
4	Failure of medical device 7	Failure of medical device 9	Failure of medical device 14		Failure of medical device 29	Failure of medical device 50	Failure of medical device 57	Failure of medical device 67	Failure of medical device 82	Failure of medical device 301	Failure of medical device 620

Cell size less than five cases

12.3 Summary

Complications of care are injuries occurring due to complications of medical care. The most striking finding for complications of care was that while death rates were very small, hospitalisation rates were around 50 percent higher than the next most common injury type. Complications of care differ from other injury types in that they can occur before, during and after hospitalisation. Four main categories of complications of care are coded: abnormal reactions to procedures, effects of therapeutic use of drugs and medicines, events due to medical devices and misadventures during medical care.

Case frequencies showed that more than one in four complication of care death was due to medical misadventures and around half were due to abnormal reactions. Hospitalisation rates showed a different pattern. More than three-quarters of hospitalisations were due to abnormal reactions and a very small percentage due to medical misadventures, although they accounted for more than 6,000 cases over the 1995 to 1999 period. Events resulting from therapeutic use of drugs/medicines accounted for around 20 percent for both deaths and hospitalisations.

Complications of care mainly involved people over 65 years of age, although compared to other injury types, there were very high hospitalisation rates for almost all age groups. The differences between ages will probably reflect differences in hospitalisation rates across age in general, although further analysis is needed to confirm this. Unlike most other injury types, the difference between hospitalisation rates between males and females were quite small for all types of complications of care. This may also reflect differences in hospitalisation rates for males and females.

13.0