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Identifying high risk groups to prevent suicide - The National Confidential Inquiry into Suicide and Homicide in the UK

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Cork, December 2008

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National Confidential Inquiry into Suicide

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National Confidential Inquiry into Suicide

1. Context
2. Methods
3. What have we found and has it had any impact?
4. What else can we do?

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1. Context

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Context

- 4,500 suicides per year in England
- Suicide is a major contributor to premature mortality (in men 2nd to heart disease)

Fig 4:

Trend in suicide rate for young men (aged 20-34)

Death rates from Intentional Self-harm and Injury of Undetermined Intent, England

Age standardised death rate per 100,000 population

30
25
20
15
10
5
0

1970 1975 1980 1985 1990 1995 2000 2005

Males 20-34

All Persons, All Ages

Three-year average rate, plotted against middle year of average (1969-2006)

Rates are calculated using population estimates based on 2001 census. Rates are calculated using the European Standard Population to take account of differences in age stru

Years to 1998 and 2000 have been coded using ICD9; 1999 and 2001 onwards are coded using ICD10.

Source: ONS (ICD9 E950-E959, plus E980-E989, excluding E988.8 (inquest adjourned) ; ICD10 X60-X84, Y10-Y34 excl. Y33.9 (verdict pending))

Context

- 4,500 suicides per year in England
- Suicide is a major contributor to premature mortality in England
- Latest annual rate: 8.5 per 100 000 population

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Suicide in mental illness

- Psychological autopsy studies
- Cohort studies

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Psychological autopsy studies

11%
35%
22%
12%
6%
14%

- Schizophrenia
- Mood Disorders
- Substance disorders
- Personality disorders
- Anxietydisorders
- Other disorders

(Bertolote & Fleischmann 2002)

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Cohort studies

Disorder	SMR
Schizophrenia	845
Bipolar disorder	1505
Major depression	2035
Dysthymia	1212
Panic disorder	1000
Alcohol misuse	586

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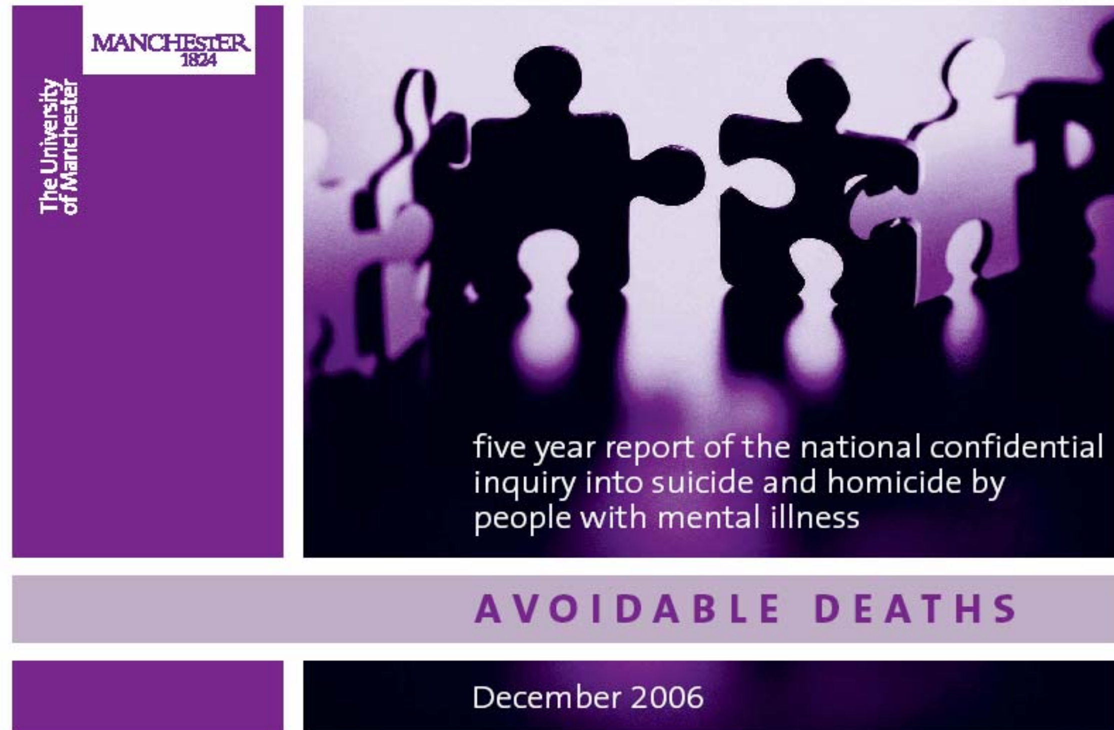
Suicide in mental illness



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2. The National Confidential Inquiry - Methods

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The National Confidential Inquiry

- A UK wide study
- Based in Manchester since 1996
- Collects national data on suicide and homicide in the general population and more detailed data on those under the care of mental health services at the time of death
- Recommends changes to practice and policy

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The National Confidential Inquiry

- All ‘suicide deaths’ from National Statistics
- Include both suicide and undetermined verdicts

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Methods

Obtain national data

↓

Determine contact with MH services via NHS Trust/board contact

↓

No contact with services <12 months	Contact with services <12 months

↓

Questionnaire sent to consultant

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The National Confidential Inquiry

Questionnaire:

- 25 pages
- 11 sections
- Demographic details
- Clinical details
- Details of management

- Response rate 97%

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Why is our response rate so high?

- Been around since 1996
- Procedures and mechanisms well honed (e.g. reminder system)
- System of trust contacts

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Why is our response rate so high?

- Clinicians expect the questionnaires
- Clinicians see the value of the data
- No blame
- No individual analysis of cases or presentation of identifiable data
- Part of arrangements for clinical governance (England only)

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Approvals

- Ethics
- Data protection and security
- Section 60 approval (allows processing of identifiable information without explicit consent)

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Databases

- Operating for 12 years
- 70,000 individuals who have died by suicide on the general population database.
- Detailed clinical data on over 17,000 individuals on the Inquiry database

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3. What have we found and has it had any impact?

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The National Confidential Inquiry

England and Wales 2001-2004

- General population suicide deaths: 23,477
- Rate: 10.2 per 100,000 per year
- Inquiry cases: 6,397 (27%)
- 1300 deaths per year

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Timing of last contact

Timing of last contact	Frequency
< 24 hours	1153
1-7 days	1802
1-4 weeks	1430
5-13 weeks	830
>13 weeks	865

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Method of suicide for Inquiry cases

Frequency

Cause of death	Male	Female
Hanging/strangulation		
Self-poisoning		
Carbon monoxide poisoning		
Jumping/multiple injuries		
Drowning		
Other		

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Inquiry cases

- High levels of social isolation, self-harm and substance misuse
- 856 (14%) in-patients
- 1271 (20%) died within 3 months of discharge
- 1523 (29%) missed last contact with services
- 4984 (86%) immediate risk estimated as low or absent
- 1017 (19%) thought to be preventable

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Inquiry cases

In-patients

- 27% of deaths occurred after patients had left the ward without staff permission
- 22% of deaths occurred in patients under non-routine observation

Post discharge deaths

- Timing

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Post-discharge deaths

Frequency

225
200
175
150
125
100
75
50
25
0

Week	1	2	3	4	5	6	7	8	9	10	11	12	13
Frequency	192	138	145	113	111	88	74	73	68	76	58	67	68

Weeks between discharge and suicide
(Week 1 = First week following discharge)

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What else might services do?

In-patients
- Reduce absconding
- Improve observation protocols
- Make wards safer

Community patients
- Manage the transition from ward to community

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What else might services do?

	Number (188)	%
Ligature Type:		
Belt	82	45%
Sheet, towel, etc.	29	16%
Shoelaces	18	10%
Clothing (tie, scarf, tights, etc.)	19	10%
Item brought in specifically (e.g. rope)	4	2%
Other specified (e.g. cable cord, curtains)	29	16%
Ligature Point:		
Hook or Handle	42	23%
Door	32	18%
Window	23	13%
Bed head	18	10%
Other rail (e.g. toilet rail, wardrobe rail)	10	6%
Pipes	9	5%
Shower fixtures (e.g. shower head, tap)	8	4%
Bed curtain rail	6	3%
Other specified (e.g. light fixture, radiator)	33	18%

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What else might services do?

In-patients

- Reduce absconding
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- Make wards safer

Community patients

- Manage the transition from ward to community

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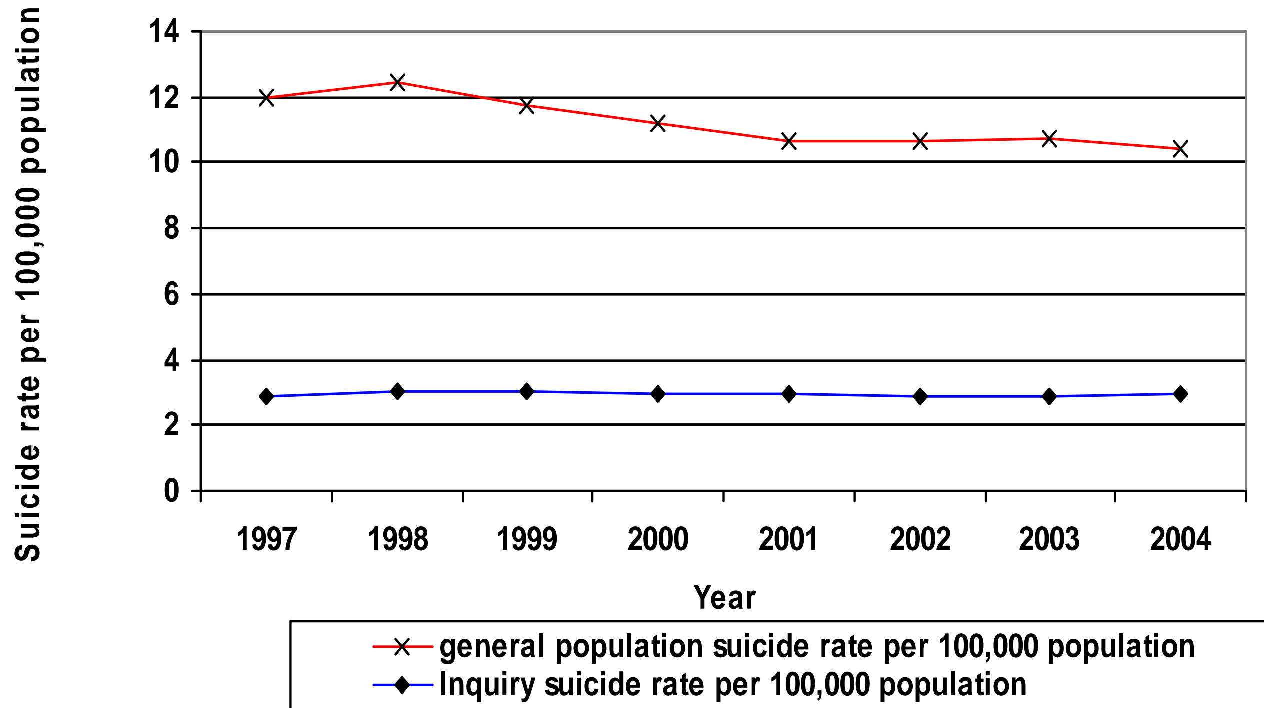
Has the Inquiry had an impact?



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Has the Inquiry had an impact?

- In-patients

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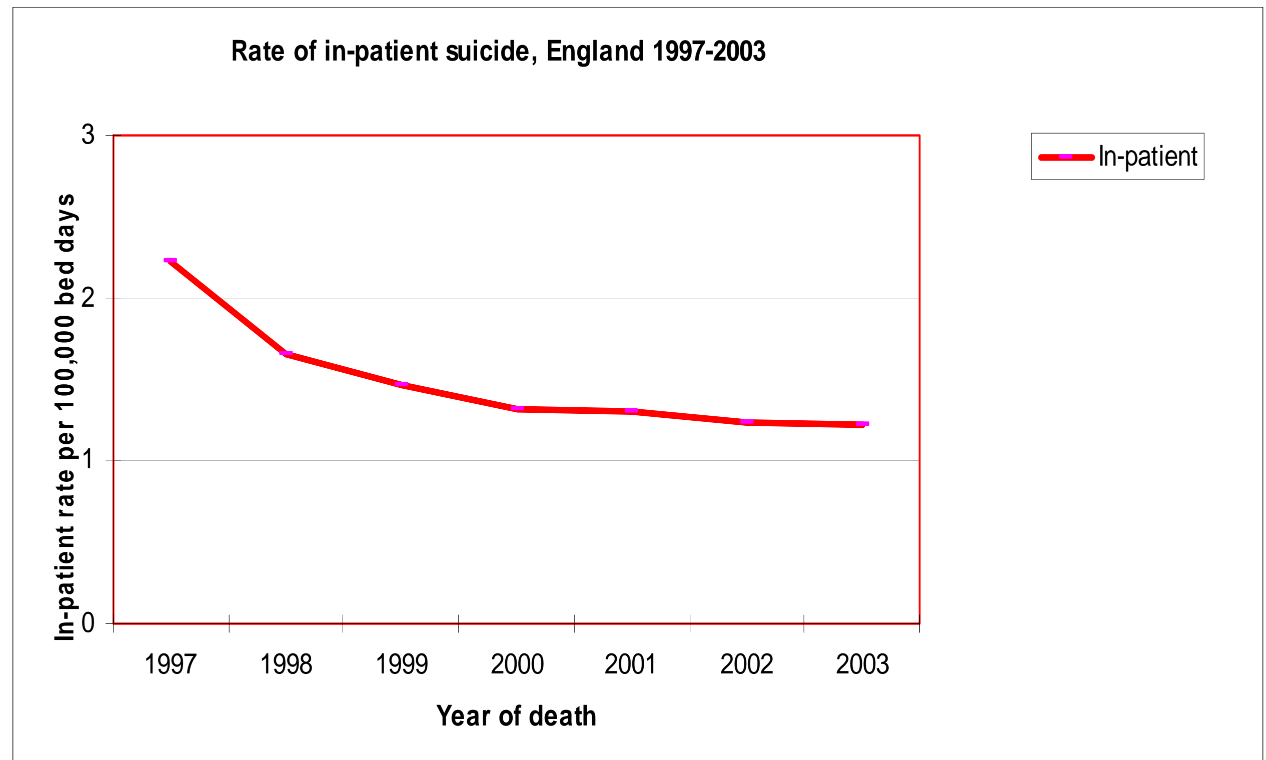

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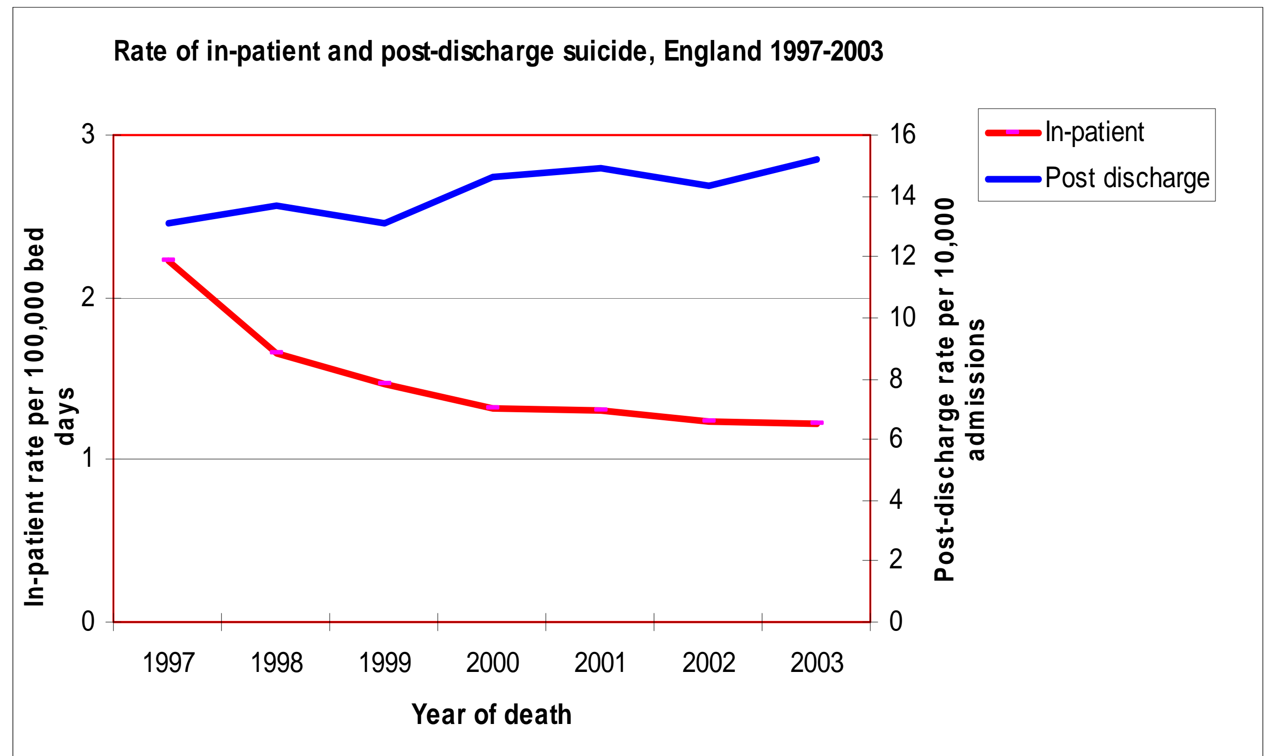

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Has the Inquiry had an impact?

Priority groups

- Psychiatric in-patients
- Those who die within 3 moths of discharge from in-patient care
- Those under CPA
- Those who are non-compliant at the time of death
- Those who missed their last appointment with services

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Has the Inquiry had an impact?

% change in suicide from 1997 to 2004

60
40
20
0
-20
-40
-60

0 1 2 3 4+

Number of priority groups that an individual belongs to

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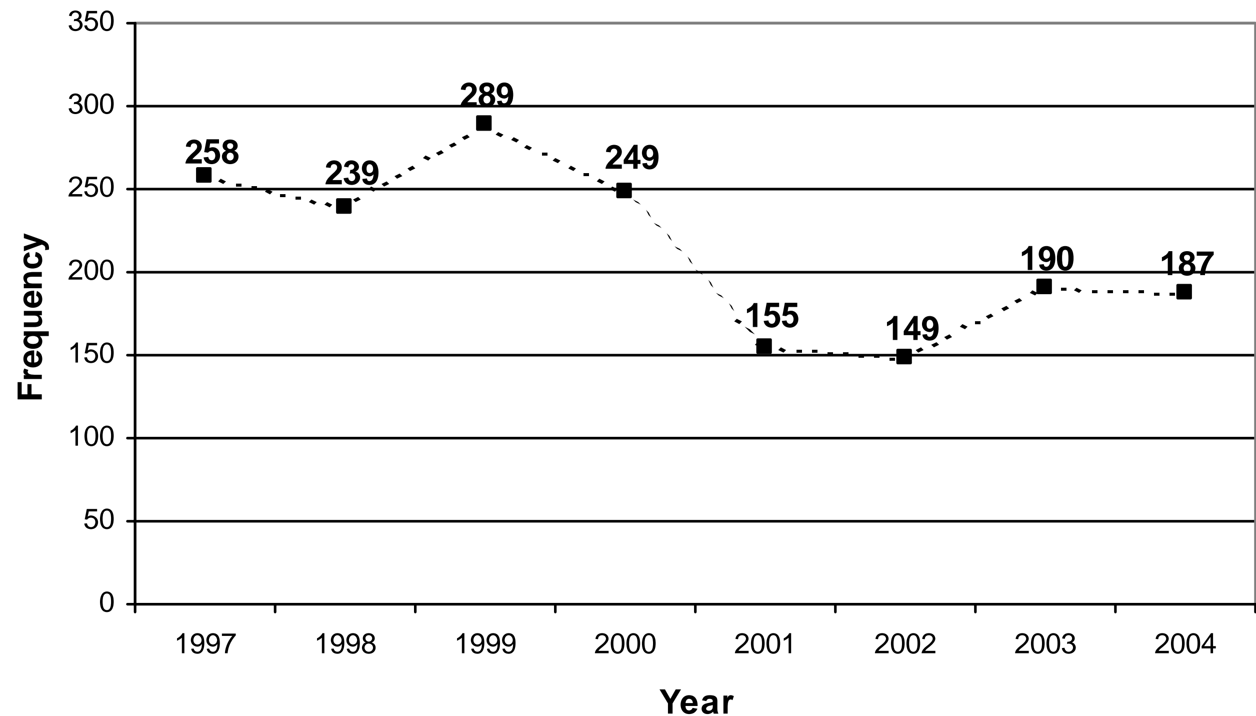

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Has the Inquiry had an impact?

Inquiry recommendations:

- Removal of ligature points
- Assertive community teams
- Risk management training
- Individual care plans
- Easy access in crisis
- Services for dual diagnosis patients
- Post-discharge follow up
- Information sharing
- Post-incident review

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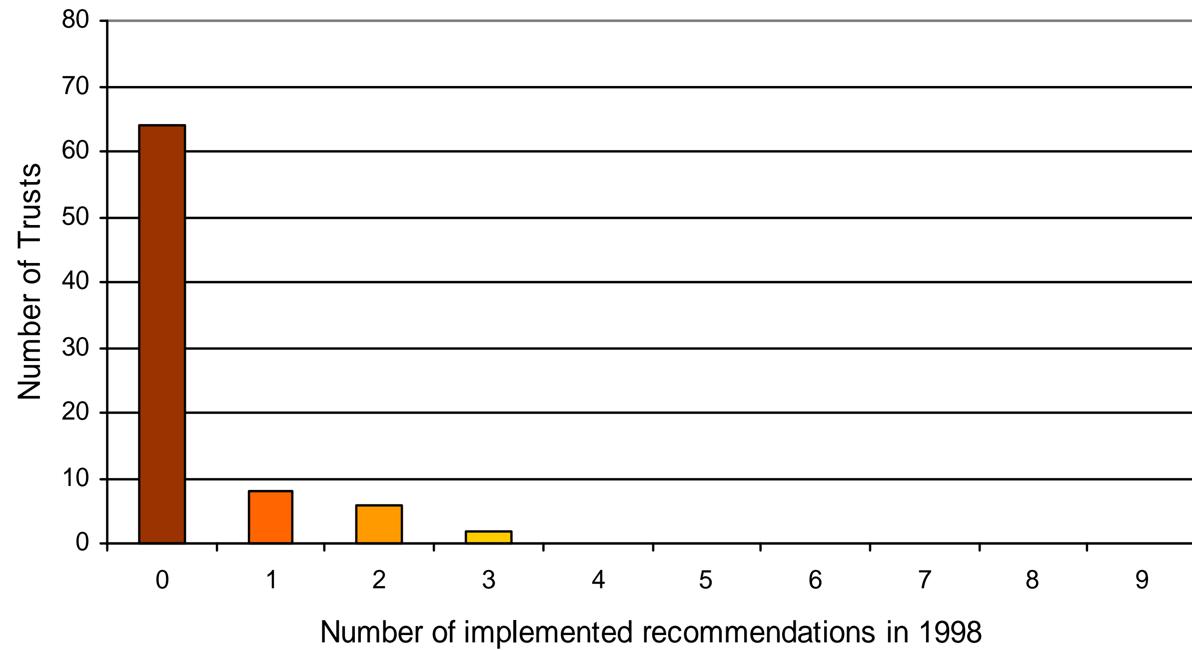
Has the Inquiry had an impact?



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Has the Inquiry had an impact?

Number of Trusts

75
70
65
60
55
50
45
40
35
30
25
20
15
10
5
0

1998 1999 2000 2001 2002 2003 2004 2005 2006

Year

0 KSRs, 1 KSR, 2 KSRs, 3 KSRs, 4 KSRs, 5 KSRs, 6 KSRs, 7 KSRs, 8 KSRs, 9 KSRs

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Policy impact of the NCI

- Definitive figures on suicide
- Contributed to the National Service Framework (NSF) Standard 7 (suicide prevention)
- Clinical recommendations in the NHS plan (e.g. assertive outreach teams, and improving access in crisis)
- Safety standards adopted by the NHS Clinical Negligence Scheme for Trusts (CNST)

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Policy impact of the NCI

- Specific recommendations on patient safety, such as: the removal of ligature points on in-patient wards, early follow-up of post-discharge psychiatric patients.
- A safety checklist for mental health services incorporated into the National Suicide Prevention Strategy (NSPS) ("12 points to a Safer Service")
- Data to individual NHS trusts to support clinical governance

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4. What else can we do?

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Controlled studies

Psychiatric in-patients: a case control study

- 23% died within the first week of admission
- Risk factors included self-harm, life events, symptoms at last contact, more than one psychiatric diagnosis, being off the ward without staff agreement.
- Unemployment was protective

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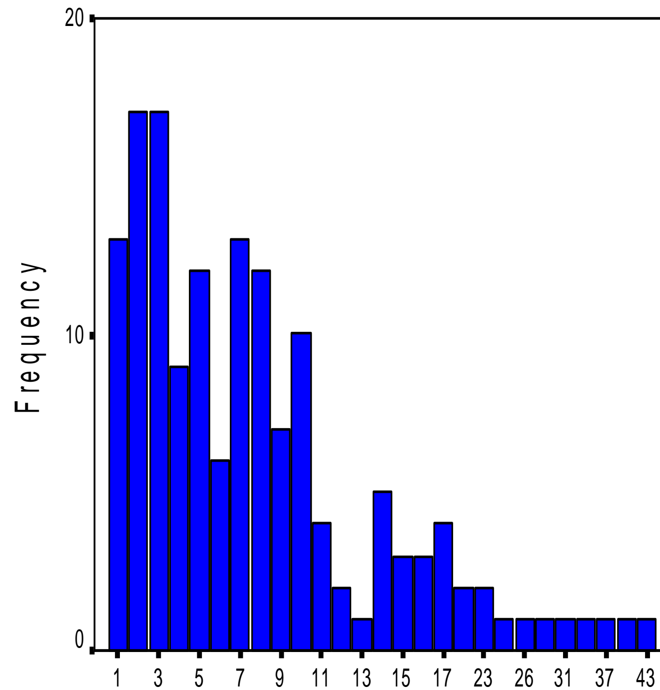
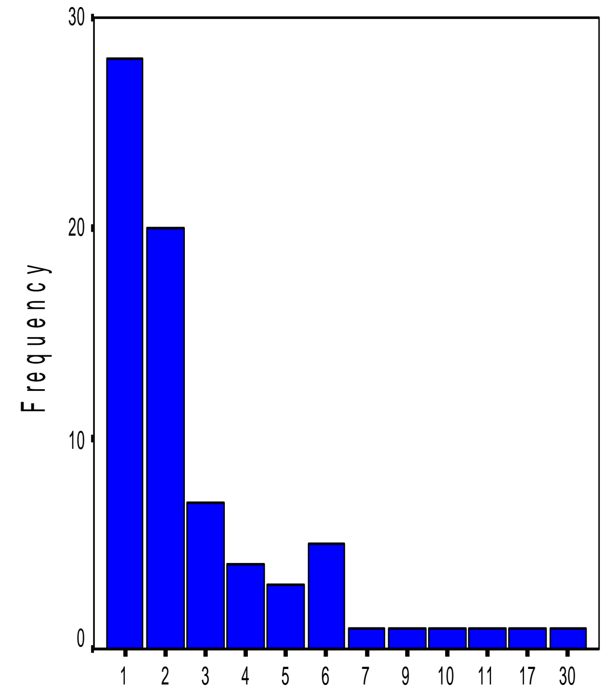
Contact with other services





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Contact with other services

"Always a feeling of desperation in (GP area), that whatever you try to get sorted always seems to be stonewalled by whoever you try to get through to. So knowing that he felt suicidal and trying to get him seen… and he knew that it was going to be a waste of time and we knew that it was going to be a waste of time, so together we were feeling a feeling of desperation"

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Trends

Suicide rates among young people in the UK

Rate/100,000

6
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0

1997 1998 1999 2000 2001 2002 2003

Overall
Males
Females

35%

28%

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Subgroups

Young people

- Suicide rates higher in males, higher in 15-19 year olds
- Low rate of contact
  - 14% (overall)
  - 12% (males)
  - 20% (females)

Ethnic minority groups

- Suicides characterised by violent methods, schizophrenia, recent non-compliance, previous violence, unemployment

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Other outcomes

- Homicide
- Sudden Unexplained Deaths on psychiatric wards
- Overdose deaths and medical management

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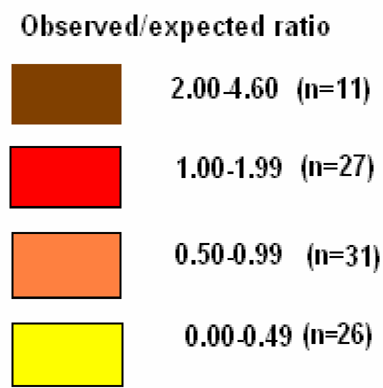
Suicide away from home-Mortality risk ratios



Avon

East Sussex, Brighton and Hove

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Suicide away from home

- 12% all suicide deaths are ‘away from home’
- These individuals: younger, homeless, unemployed, BME, SCZ, inpatient status
- Methods: CO, drowning, jumping
- Location was associated with method of death – e.g. drowning in coastal areas, jumping among non-residents in hot spot areas

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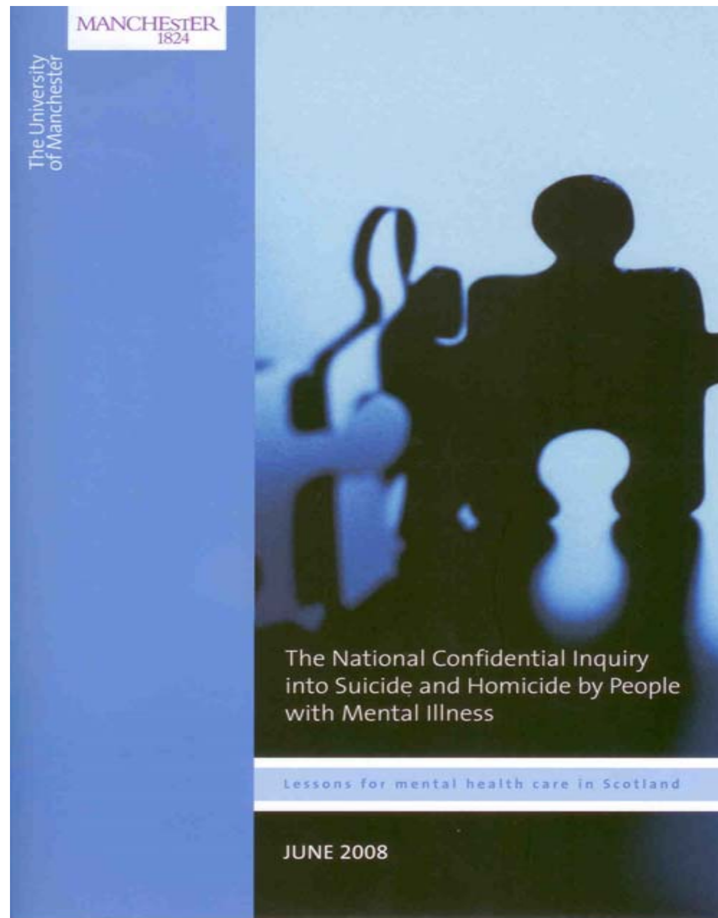
Cross-national comparisons



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Scotland

- 5,054 general population suicides
  - 18.7 per 100,000 population per year
- 1,373 patient deaths (Inquiry cases)
- 28% of all suicide deaths in Scotland
- 229 per year

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Rate of in-patient suicide

Year	Rate per 100,000 bed days
1998	1.2
1999	1.06
2000	1.38
2001	0.94
2002	0.97
2003	1.28
2004	0.72

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Rate of post-discharge suicide

Rate per 100,000 bed days

25
20
15
10
5
0

16.5
17.1
11.7
17
22.3
18.4
17.6

1998 1999 2000 2001 2002 2003 2004

Year

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Comparisons with England and Wales

	Scotland		E & W
Suicide rate per 100,000 population	18.2	vs.	10.2
(Schizophrenia	0.79	vs.	0.53)
Rate of contact	28%	vs.	23%
Self-poisoning	34%	vs.	28%
Drowning	10%	vs.	6%
Low/no immediate risk	91%	vs.	86%
Preventability	11%	vs.	19%
In-patients	9%	vs.	14%

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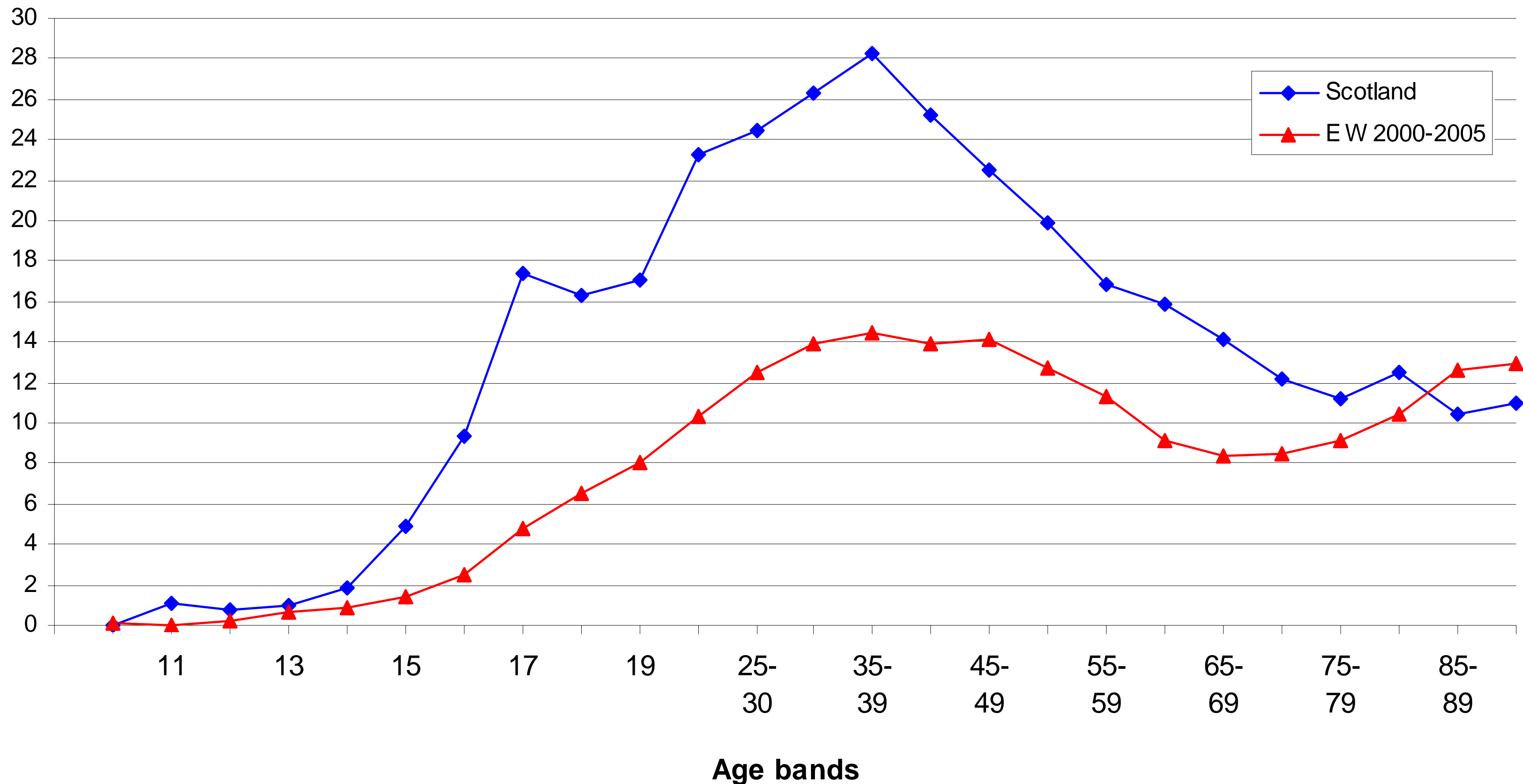
General population suicide profile for Scotland compared to England and Wales



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Comparisons with England and Wales

%	Scotland	E & W
Alcohol dependence	17	8
Alcohol misuse	58	44
Drug dependence	9	3
Drug misuse	39	30

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Recommendations

Community services

- Better training and services for the management of drug and alcohol misuse – including dedicated services for dual diagnosis
- Specialist community mental health teams providing outreach for patients at risk of losing contact
- Early follow-up following hospital discharge

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Recommendations

In-patient units

- More intensive supervision of patients recently admitted to hospital
- Removal of ligature points from in-patient wards
- Prevention of absconding from wards
- Careful assessment of risk during periods of leave leading up to discharge

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Recommendations

General

- Positive clinical attitudes to the prevention of risk as part of a more understanding dialogue with the public

- Further study of the higher suicide rates in Scotland

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