

The incidence of suicide in Ireland and internationally

Paul Corcoran

National Suicide Research Foundation

National Office for Suicide Prevention National Forum,
22 March 2007, Dublin

Overview

International context

Recording of suicide in Ireland

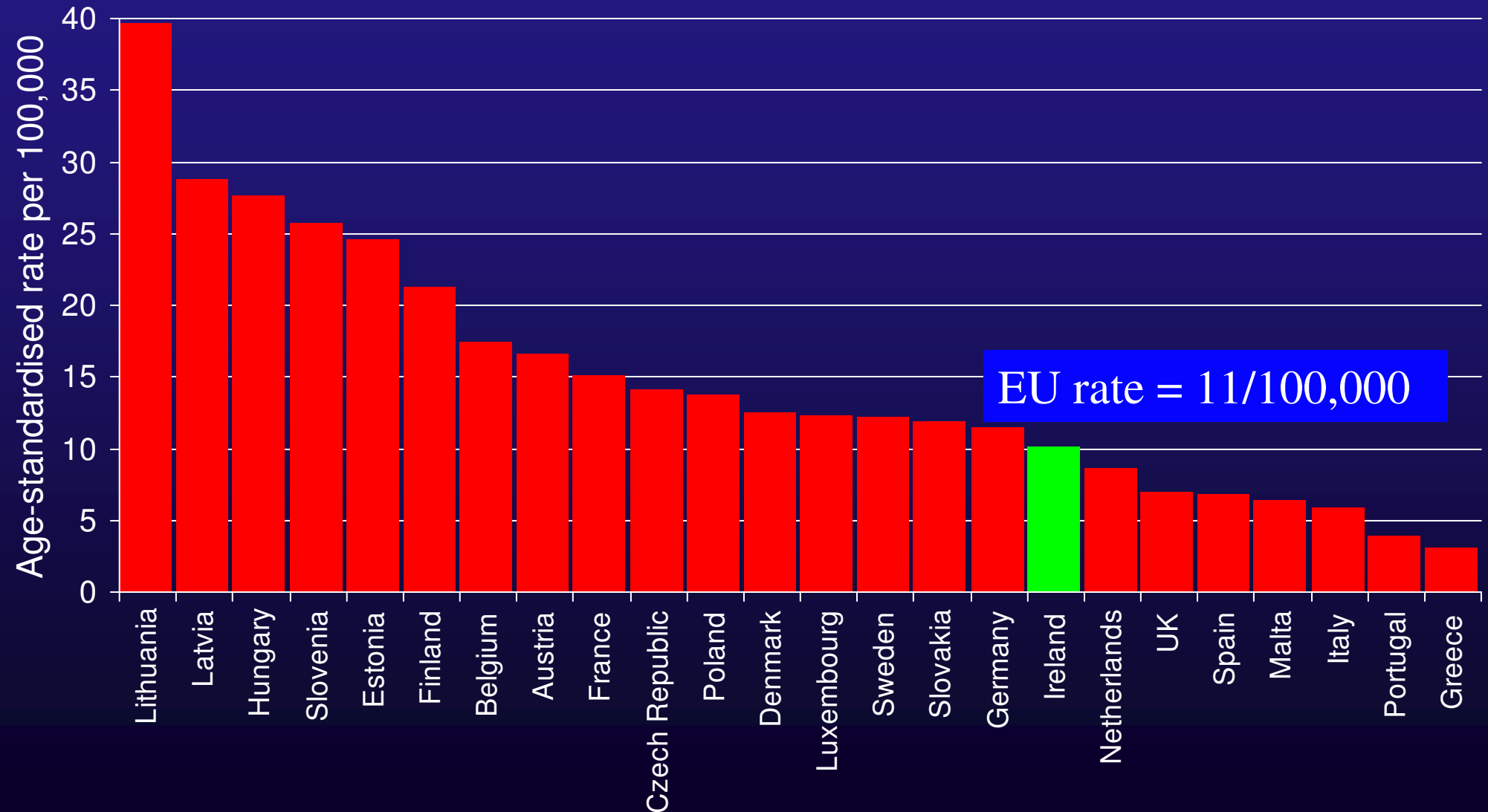
Reporting of Irish suicide figures

Trends in Irish suicide

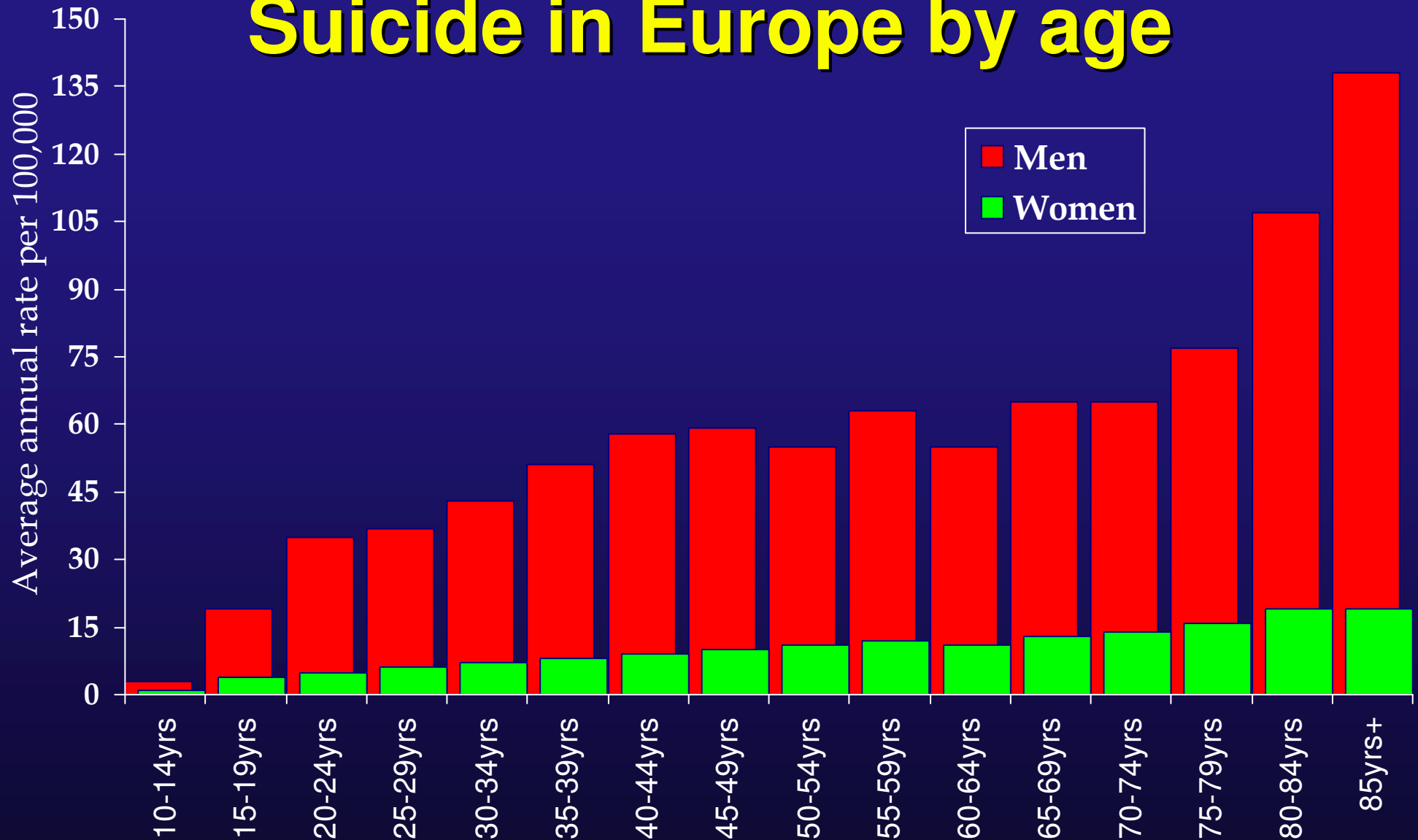
Variation in Irish suicide by time and area

The challenge of setting a suicide prevention target

Suicide in Ireland and in other EU countries

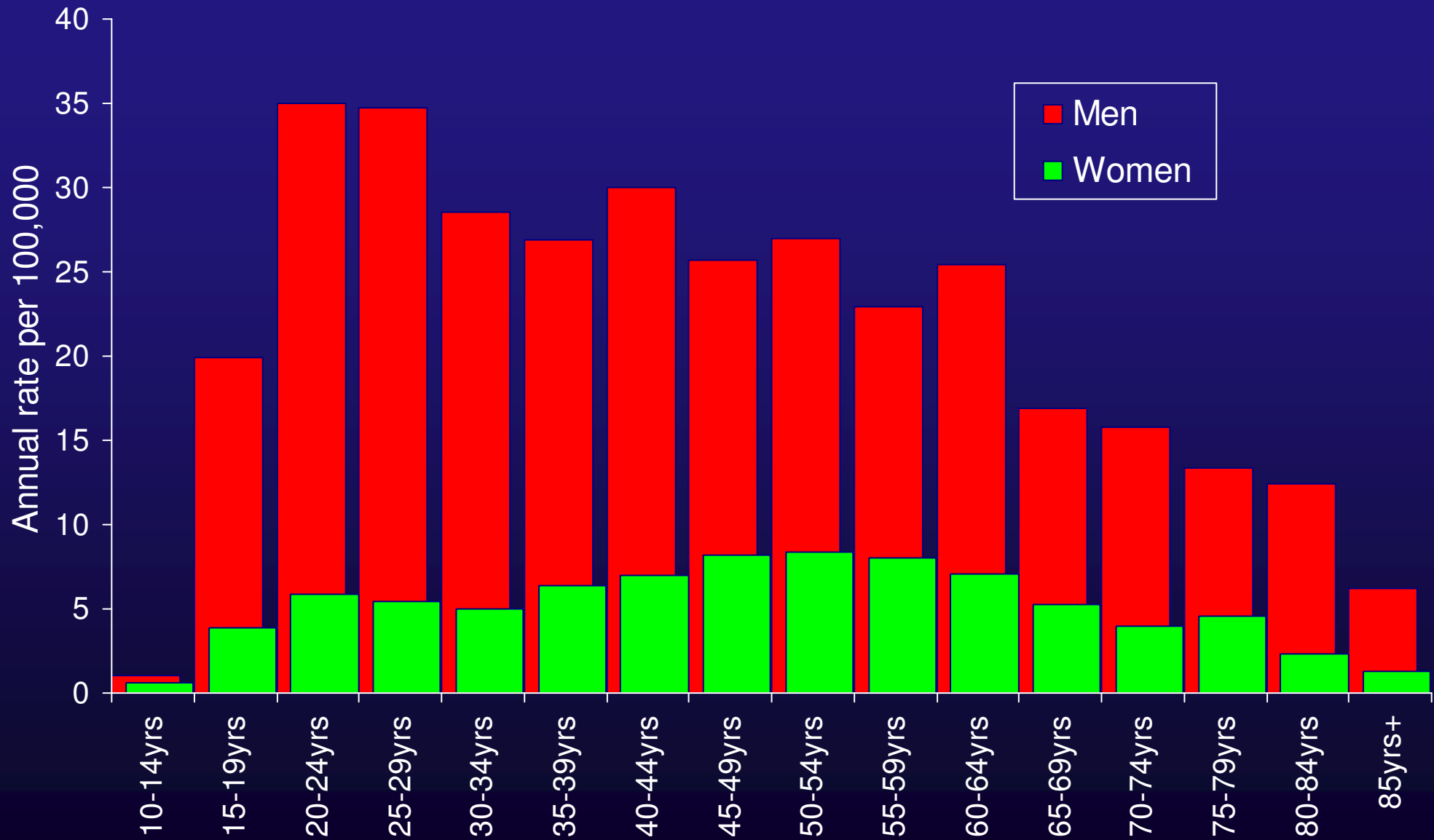


Suicide in Europe by age

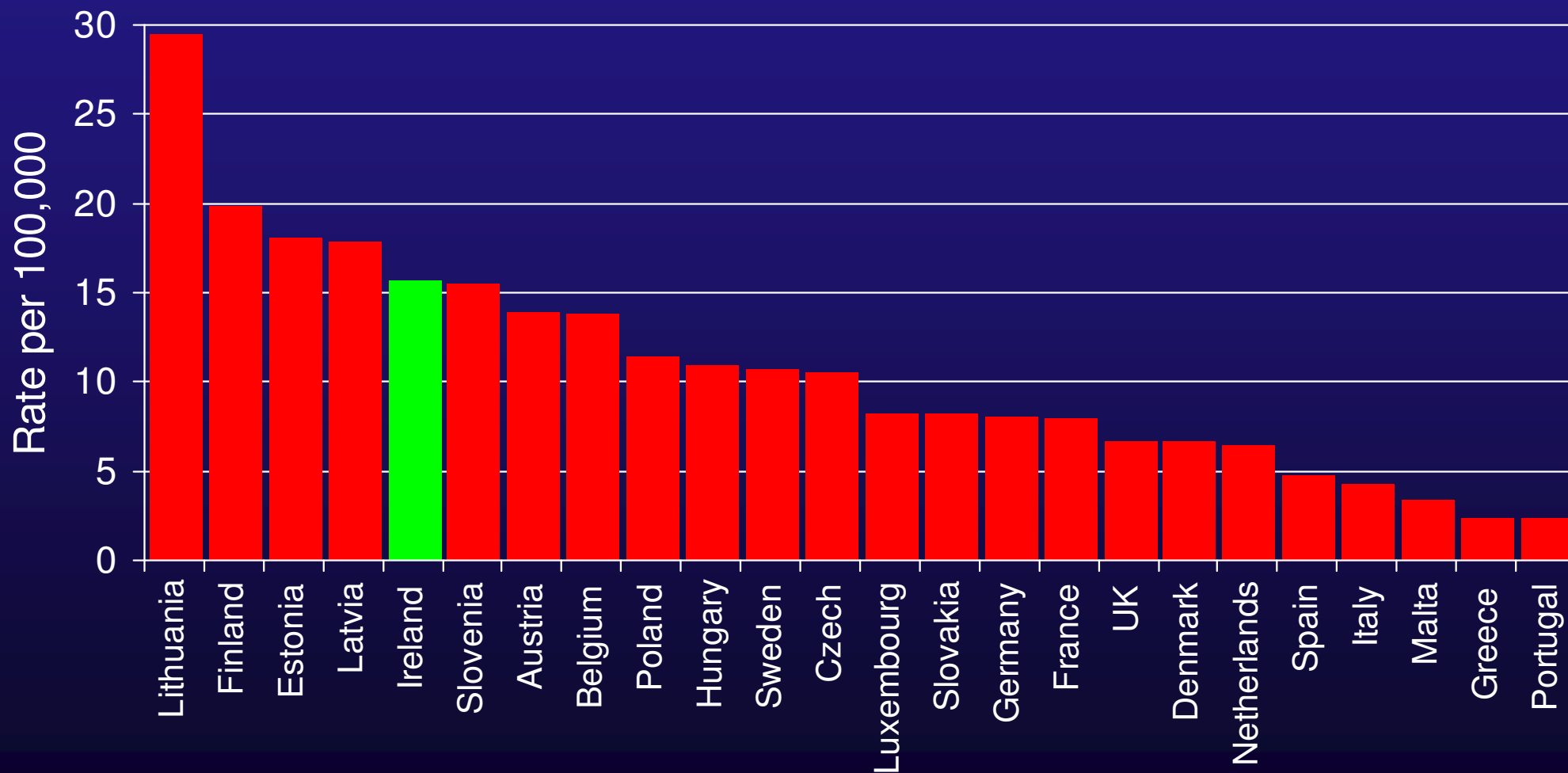


Based on WHO/Euro suicide data available between 1993 and 1997

Suicide in Ireland by age, 2000-2004

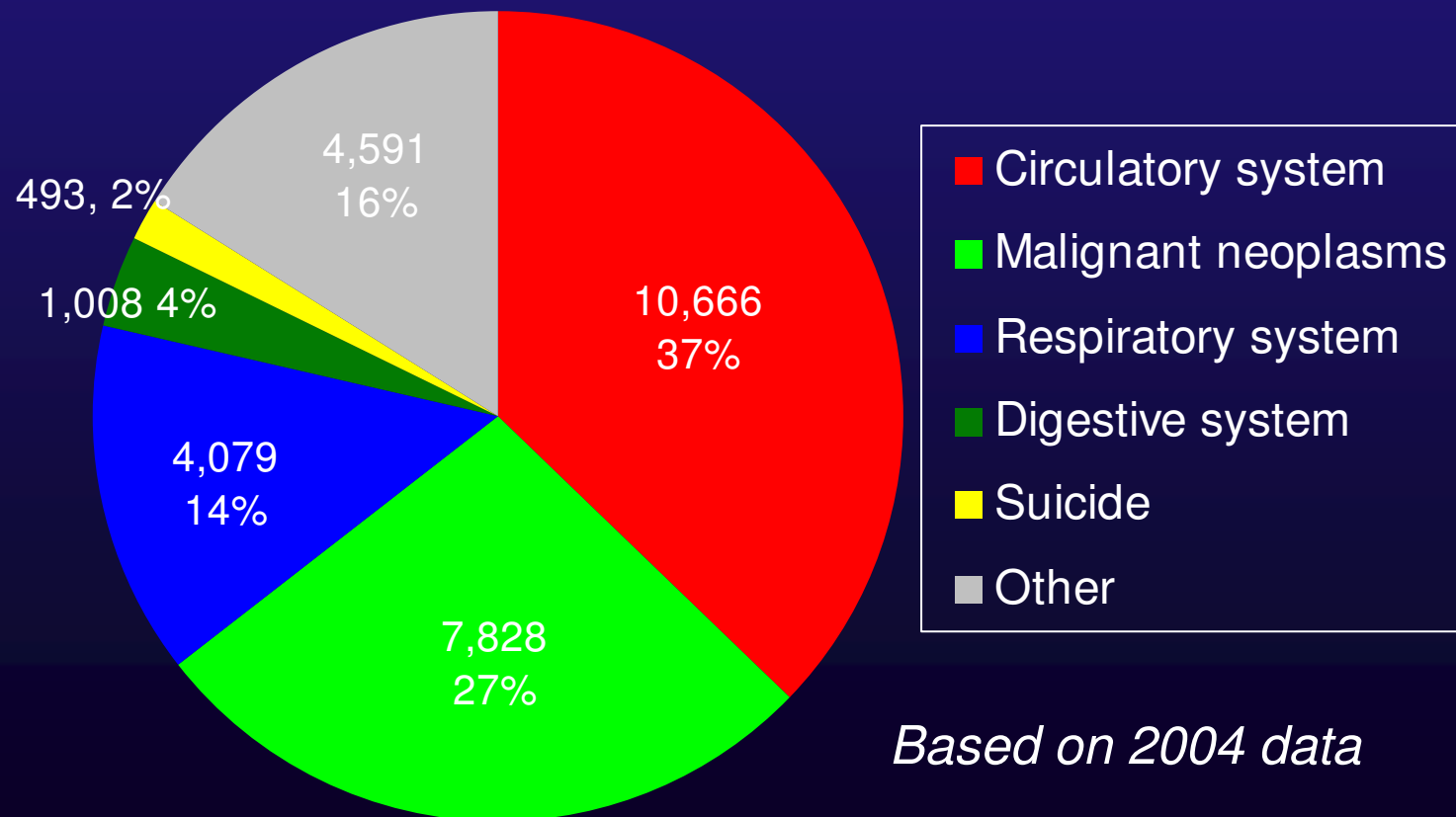


15-24 year-old suicide rate in Ireland and in other EU countries



Is suicide a major cause of death in Ireland?

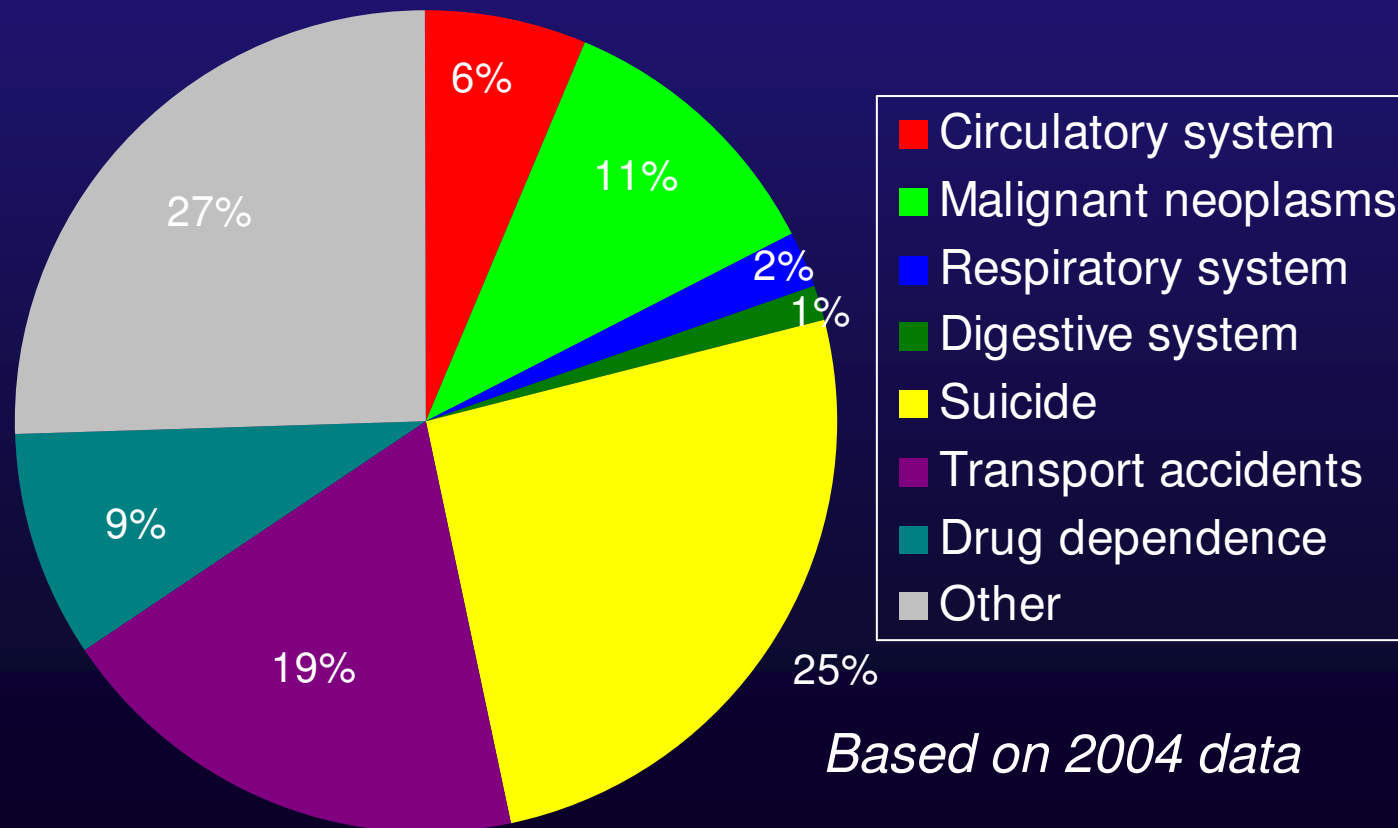
Suicide accounted for 493 (1.7%) of the 28,665 deaths that occurred in 2004.



Based on 2004 data

Is suicide a major cause of death among young adults in Ireland?

Suicide accounted for 205 (25.4%) of the 808 deaths of 15-34 year-olds that occurred in 2004.



Summary I

- Ireland has an average suicide rate in Europe
- Young Irish adults have a high rate
- Suicide is the leading cause of death in young Irish adults

Recording of suicide in Ireland

- Coroner notified of death by gardai
- Post mortem and inquest
- Registrar registers death after inquest and notifies the Central Statistics Office (CSO)
- CSO send confidential form to relevant garda sub-district
- Garda provides opinion as to the cause of death and returns form to CSO
 - Suicidal
 - Homicidal
 - Accidental
 - Undetermined

History of Irish suicide recording practices

1968: Garda form introduced

CSO adopts ICD-8 (new undetermined death category)

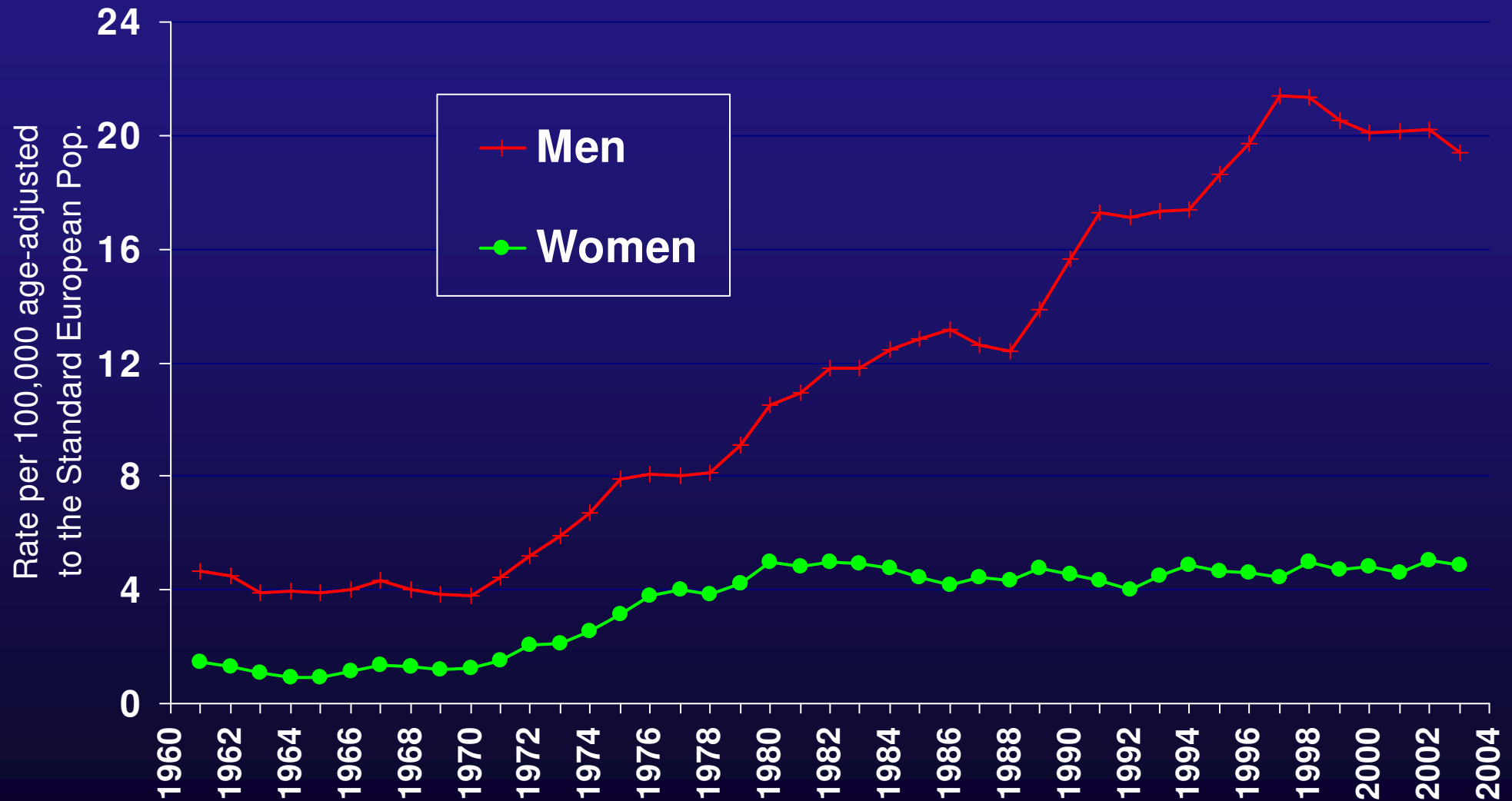
1979: CSO adopts ICD-9

1998: National Task Force on Suicide

1999: Expanded form 104 implemented nationally

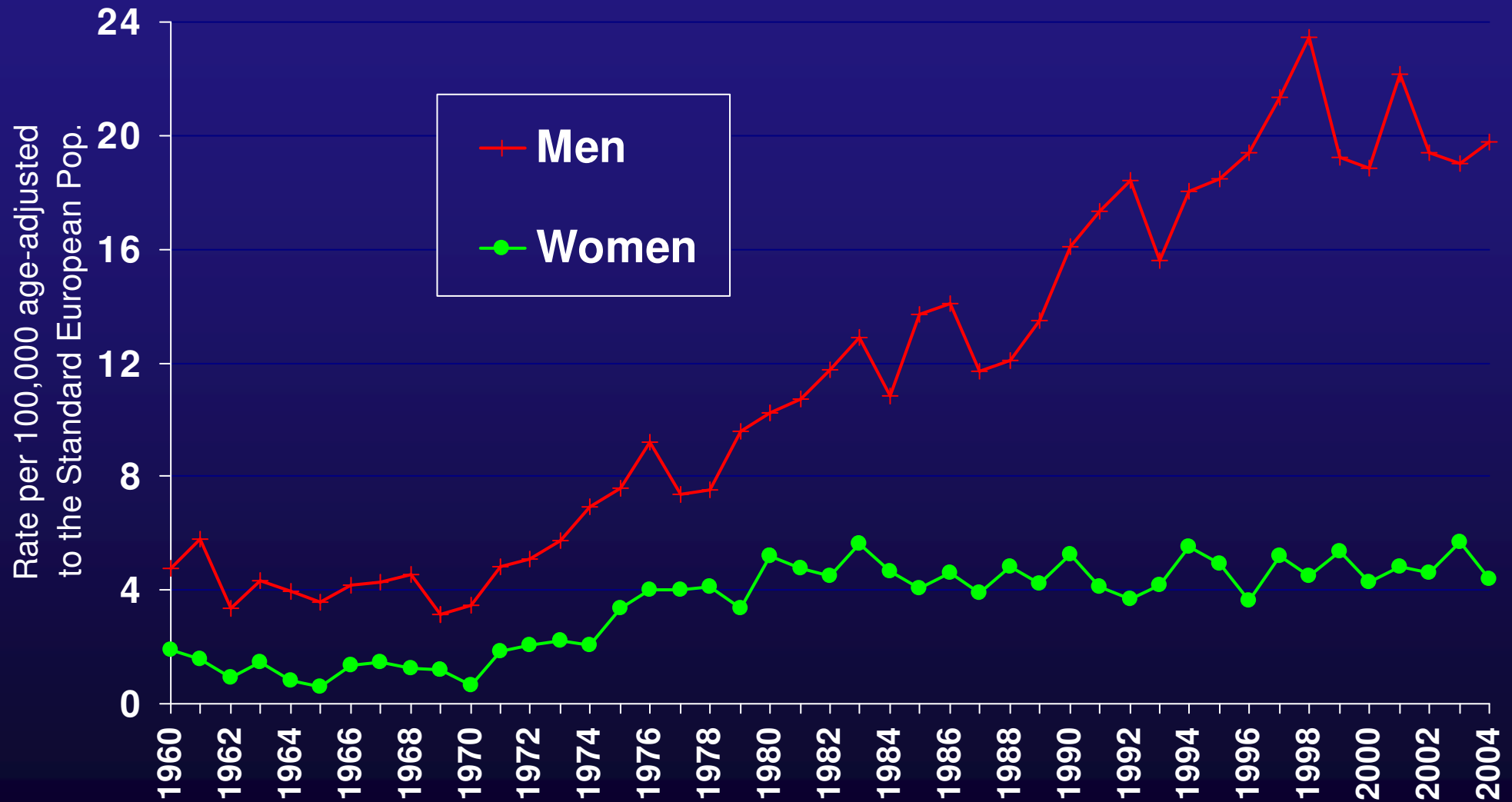
2007: CSO adopts ICD-10

Irish male and female suicide rates, 1960-2004



Three-year moving averages are shown.

Irish suicide rates, 1960-2004



Summary II

- Ireland has a complex multi-agency system of recording suicide and other inquested deaths
- Changes in this system over time may have affected Irish suicide statistics

Recording mortality statistics in Ireland

Internal/ natural causes of death

- Heart disease, cancer, respiratory disease, etc
- 25,000 to 30,000 deaths annually
- ‘Quick’ registration almost always based on medical certificate of cause of death

External/ unnatural causes of death

- Accidents (falls, RTAs, drownings, etc), suicide, homicide
- 1,500 to 2,000 deaths annually
- Two-calendar-year registration almost always based on coroner’s certificate and garda form 104

Reported mortality statistics in Ireland

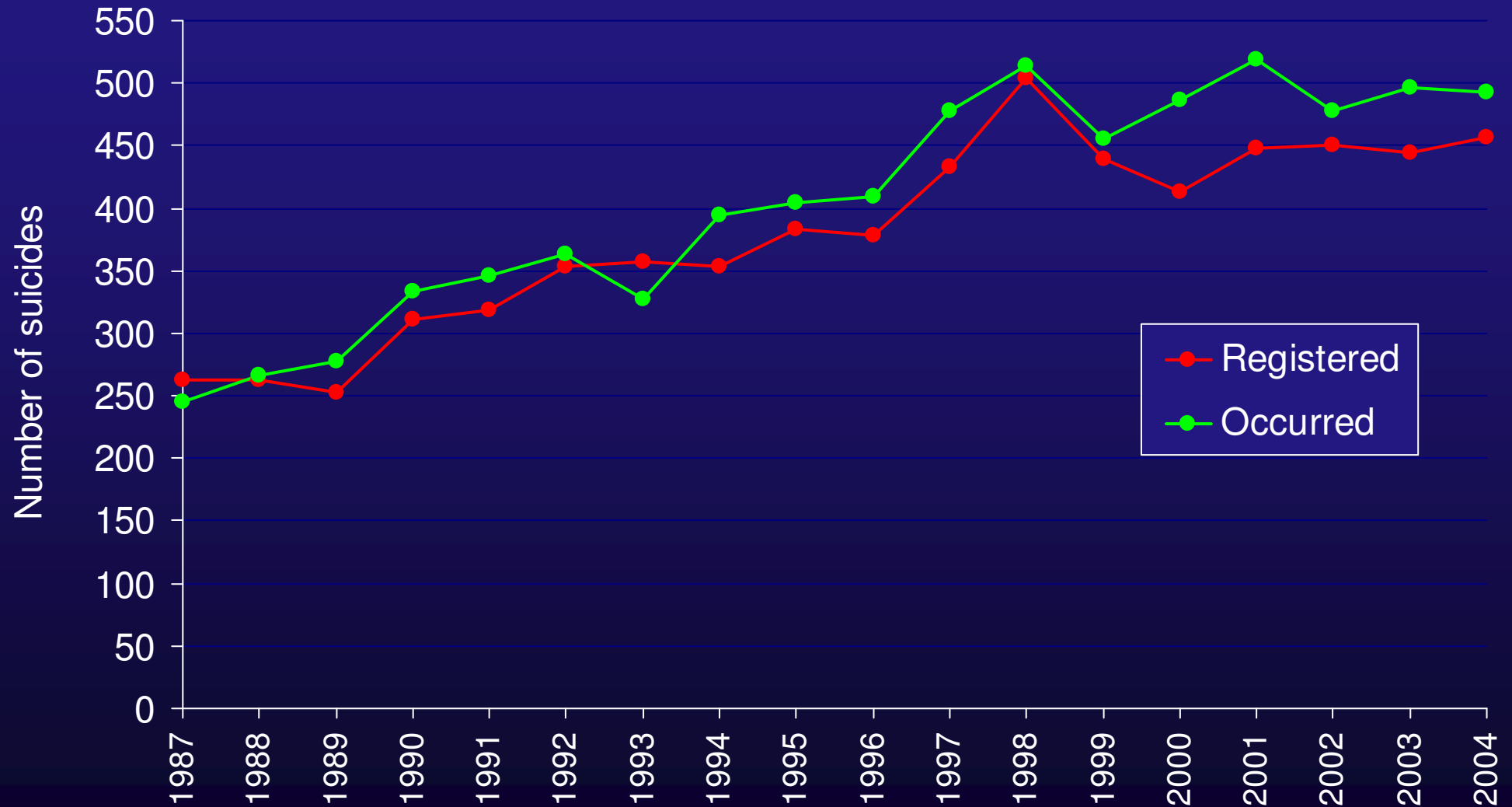
Registration figures

- Number of deaths registered with a cause of death by CSO
- Quarterly and yearly summaries
- Yearly summary within 6 months of year end (2006 data available in the coming months)

Occurrence figures

- Number of deaths that occurred in a year and were registered with a cause of death (on time) by CSO
- Annual report within 24 months of the year end (2004 data published in December 2006)

Reported suicide statistics, 1987-2004



Reported suicide statistics

	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>
Registered	433	504	439	413	448	451	444	457
Occurred	478	514	455	486	519	478	497	493
% diff	+10%	+2%	+4%	+18%	+16%	+6%	+12%	+8%

Annual number reported differed by 10-73 deaths, average 41

Summary III

- The CSO releases suicide statistics in two forms: registration figures (<6 months) and occurrence figures (<24 months)
- Registration figures are underestimates

A time trend analysis of suicide and socio-economic change

Published in Crisis 2005; Vol. 26(2): 90-94 as:

Socio-economic change and suicide: A time-series study of Ireland

Siobhán Lucey¹, Paul Corcoran², Helen S Keeley²,
Justin Brophy³, Ivan J Perry^{2,4}

Objective

To examine whether indicators of social and economic change had contributed to trends in Irish suicide rates between 1968 and 2000

Socio-economic indicators, 1968-2000

- GDP per capita
- Unemployment rate
- Female labour force participation rate (FLFPR), 1971-2000
- Per capita alcohol expenditure
- Marriage rate
- Percentage of births outside of marriage
- Indictable crime rate

All obtained from CSO except for indictable crime data, which were obtained from Annual Garda Reports

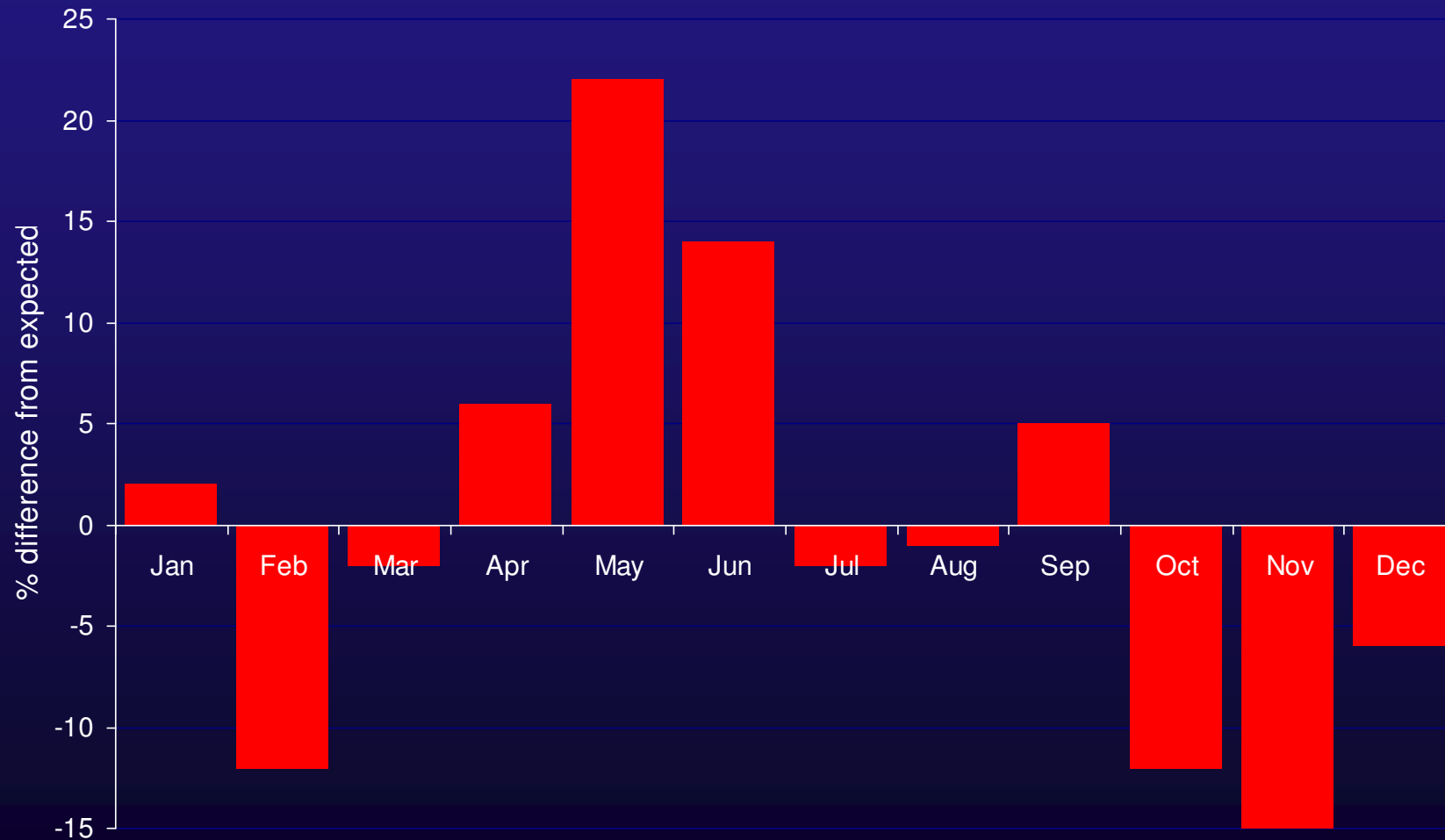
Correlation between socio-economic indicators and Irish suicide rates

	Rates	Changes in rates
GDP	0.84	-0.13
Unemployment	0.65	0.02
FLFPR	0.79	-0.24
Alcohol expenditure	0.80	-0.01
Marriage rate	-0.87	-0.06
Births outside marriage	0.77	-0.25
Indictable crime	0.90	0.19

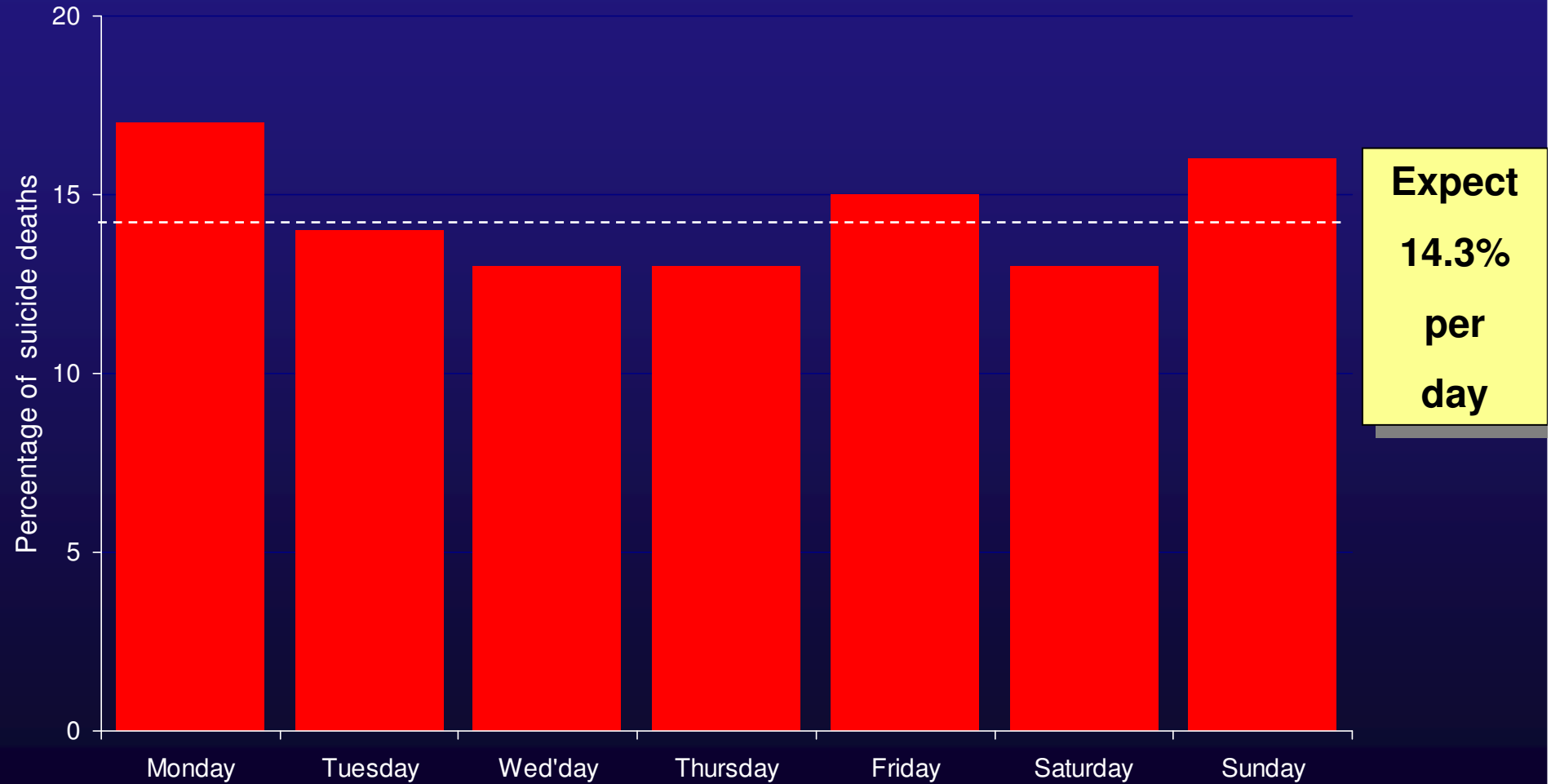
Summary IV

- Irish suicide rates followed similar trends to socio-economic indicators
- Annual changes in suicide did not mirror annual changes in socio-economic indicators
- Changing socio-economic cannot be relied on to reduce suicide rates

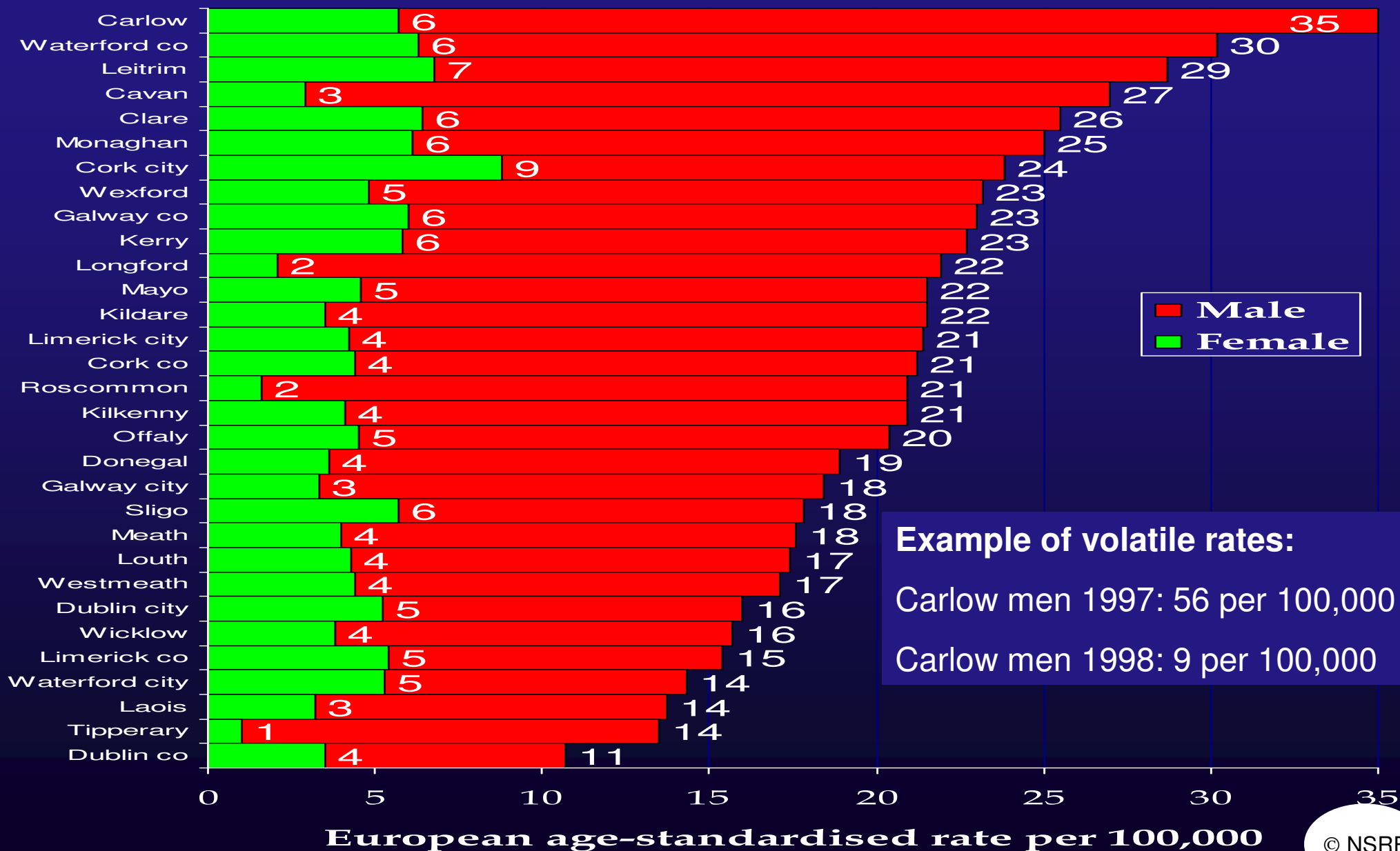
Monthly variation in suicide, 2000-2004



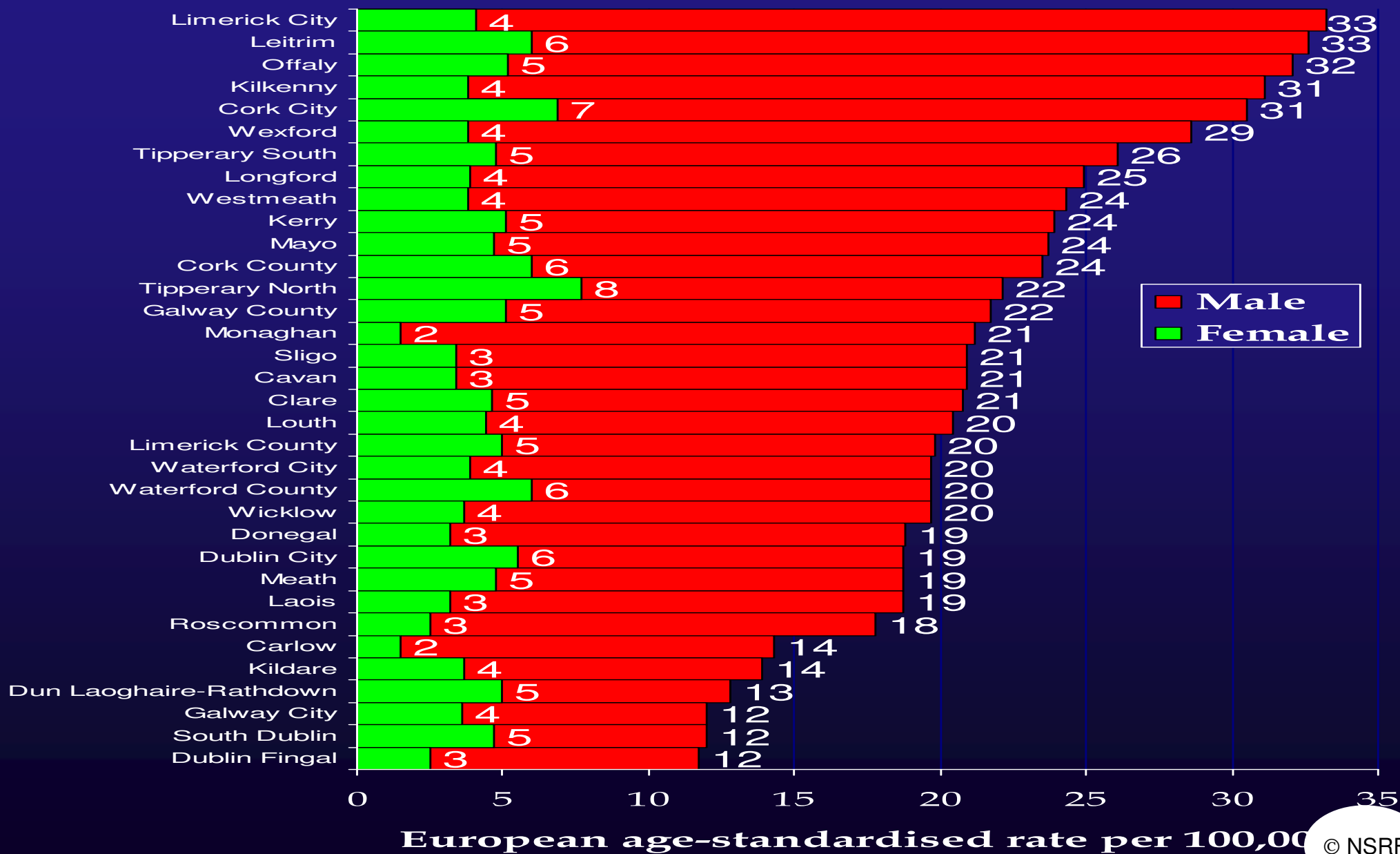
Daily variation in suicide, 2000-2004



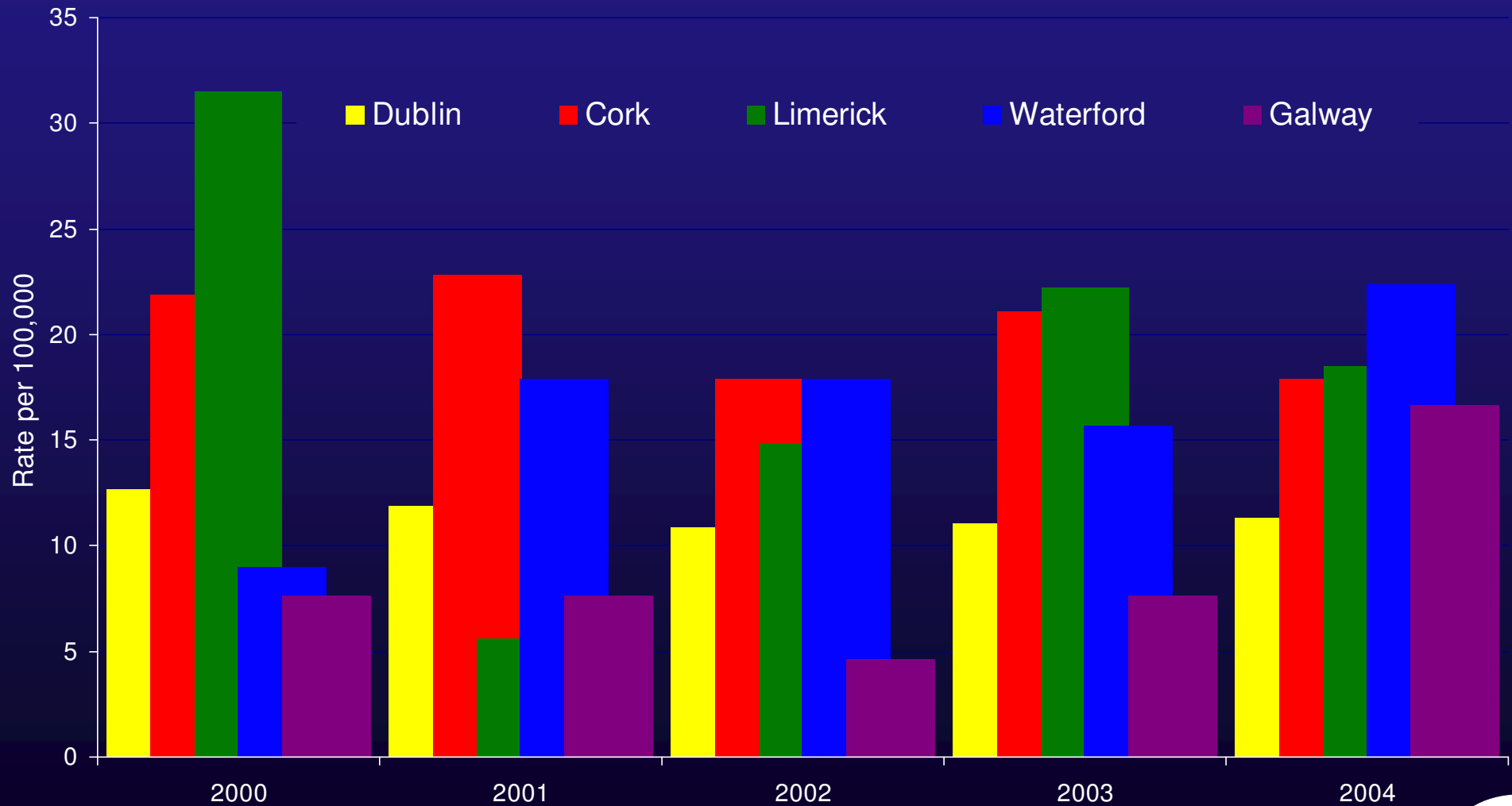
Irish suicide by county/city, 1990-97



Irish suicide by county/city, 1998-2002



Irish city rates of suicide



Dublin city's low suicide rate

Average annual rate per 100,000 2000-2004:

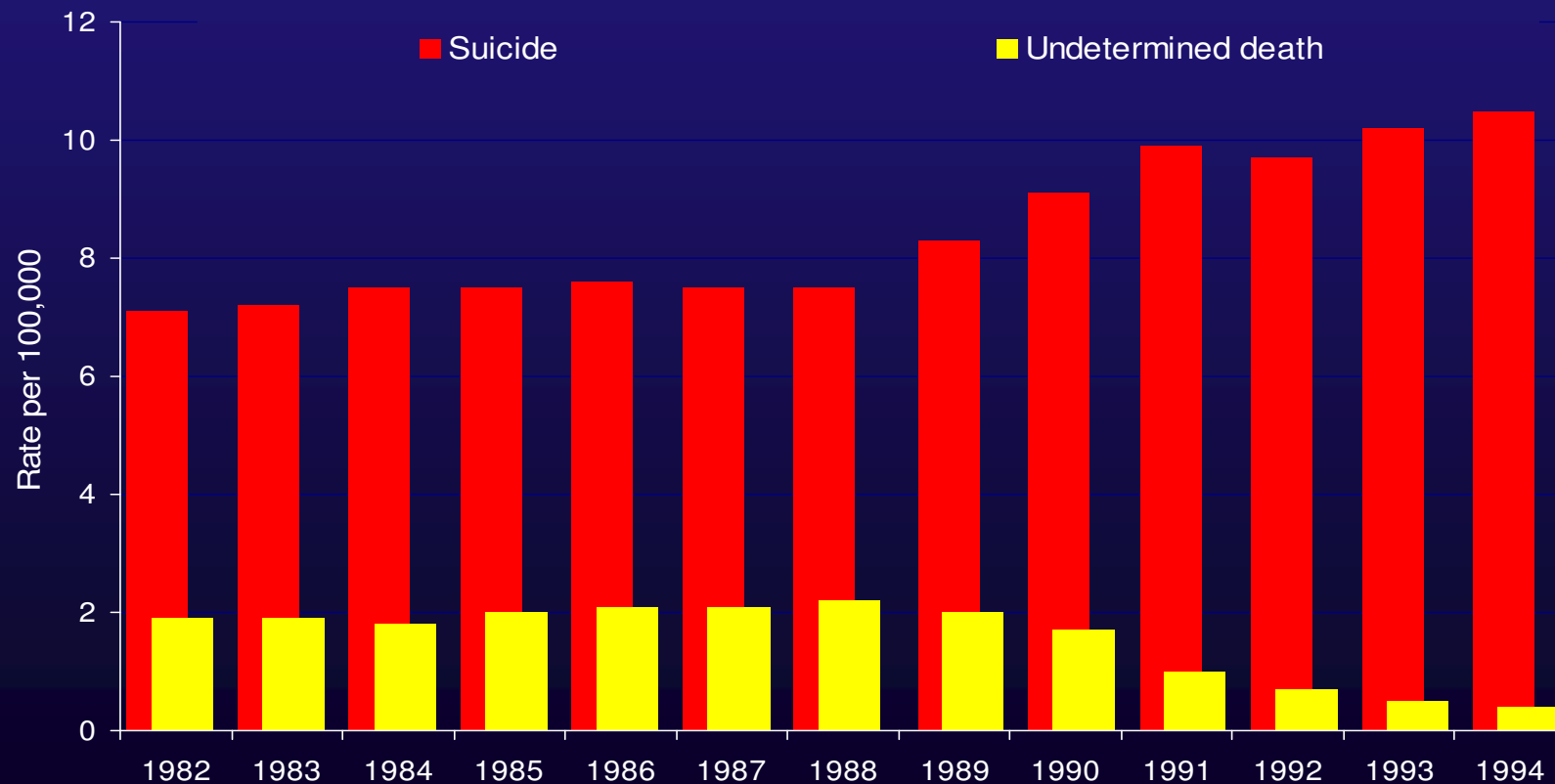
	Suicide	Undetermined	S + U
Dublin	11.6	5.2	16.8
Other 4 cities	16.8	2.6	19.4
Rest of Ireland	12.4	1.5	13.9

Summary V

- Irish suicide follows a temporal pattern found in many other countries (Monday and early Summer peaks)
- At least three-fold differences in county/city rates
- Lack of geographic detail to properly analyse area variation including suicide clusters

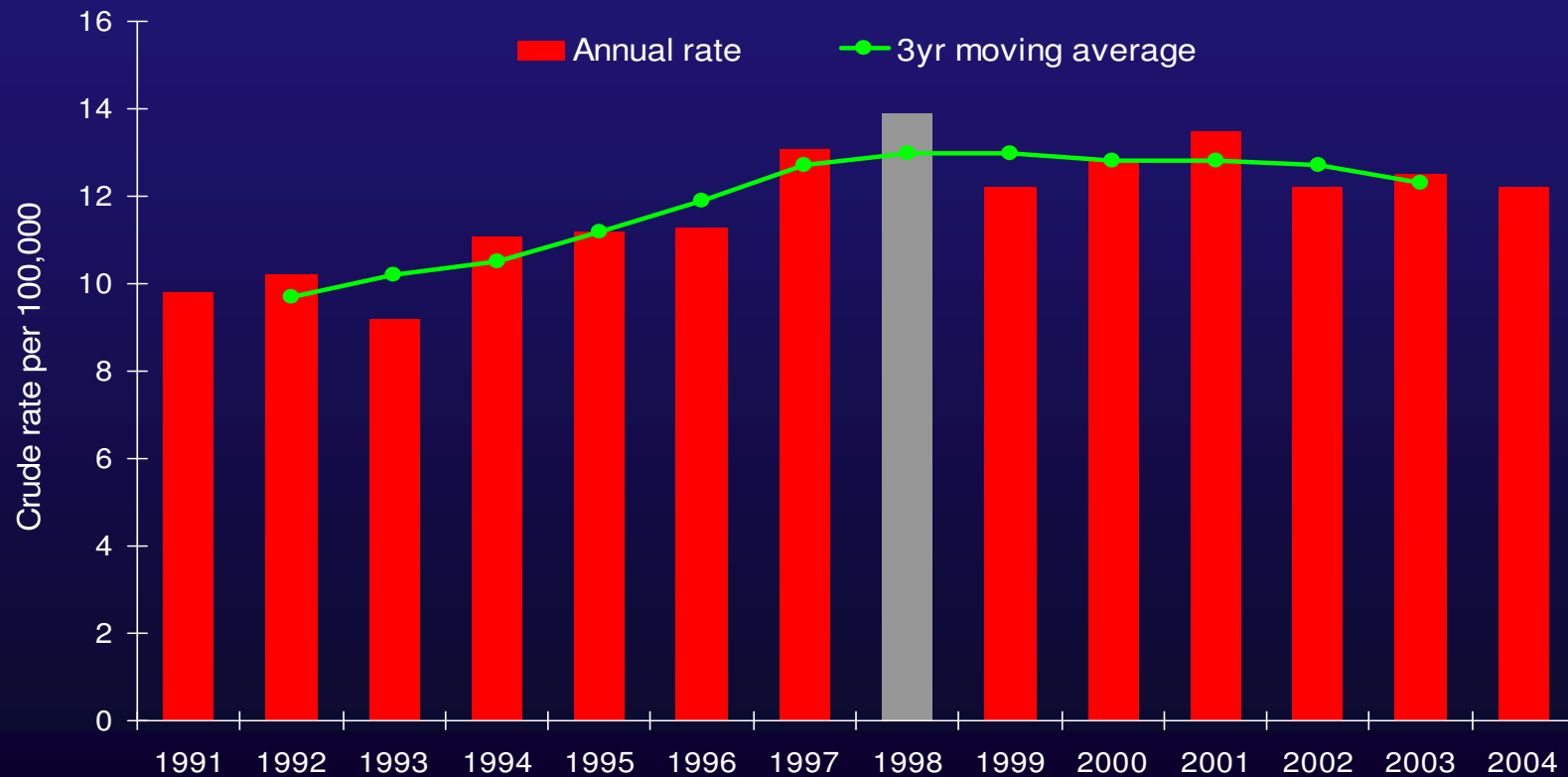
The importance of misclassification

Opposing trends in the rates of suicide and undetermined deaths



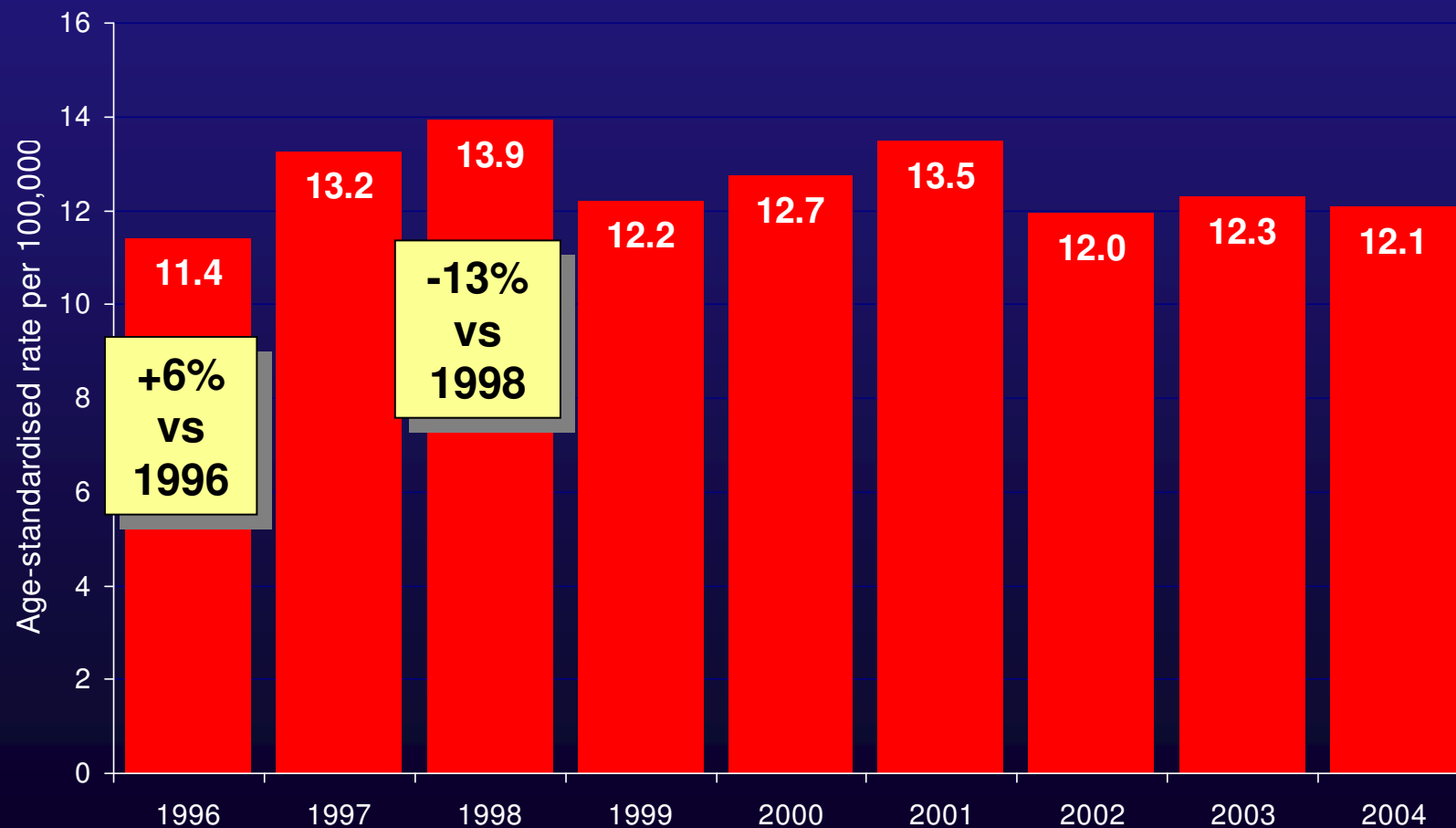
The effect of the National Task Force Recommendations (1998)

Stopped the trend of increasing rates?



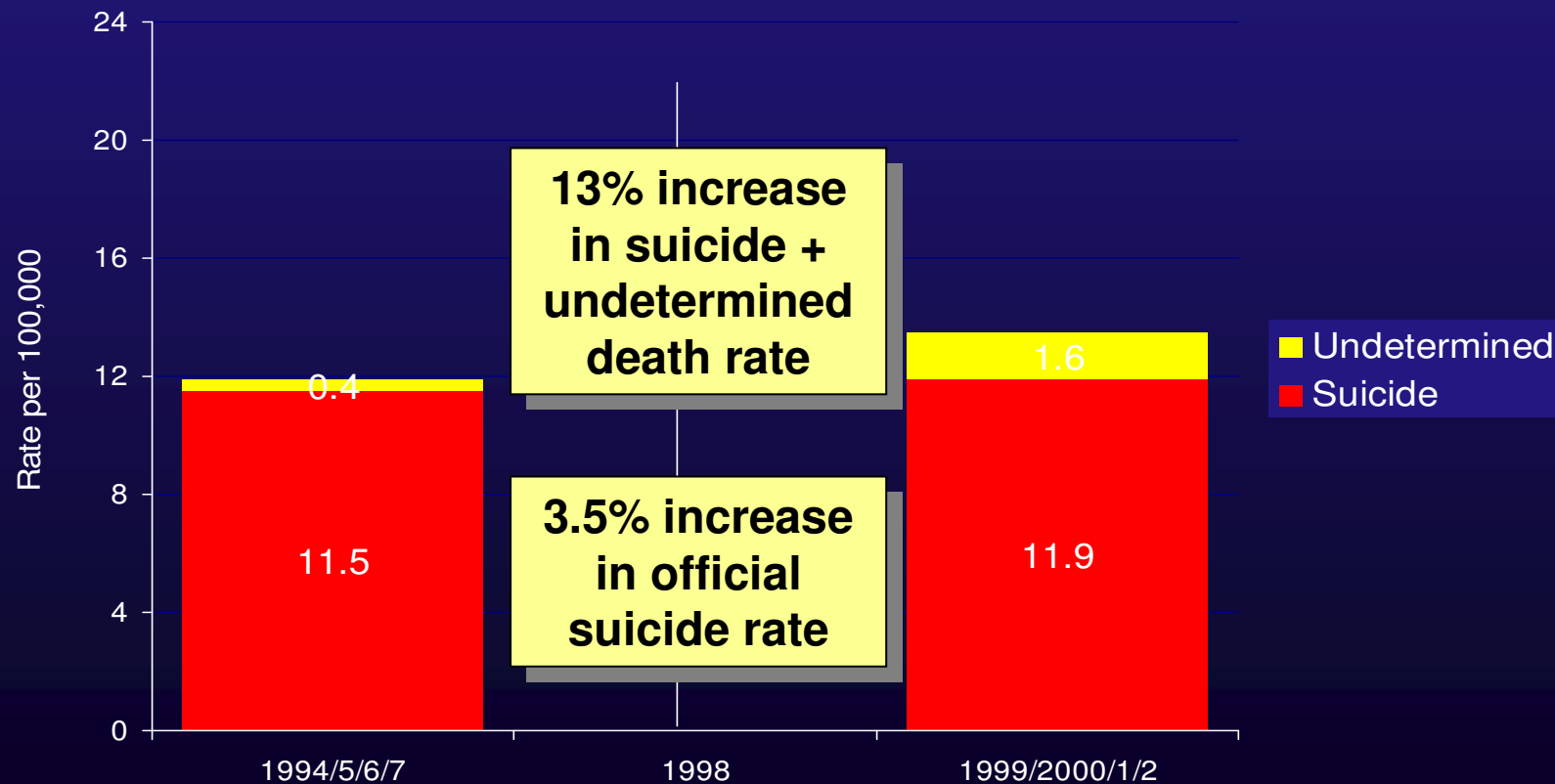
The effect of the National Task Force Recommendations (1998)

Reduced the suicide rate?



The effect of the National Task Force Recommendations (1998)

Undermined by misclassification?



Summary

Changes in recording practices may impact on suicide statistics and undermine the reaching of our suicide prevention target

Need to be aware of procedural changes and trends in other relevant causes of death

Need a mechanism to systematically collect more data on suicide and other related deaths in collaboration with coroners and other agencies

Thank you ...

Paul Corcoran
National Suicide Research Foundation
1 Perrott Avenue, College Road, Cork, Ireland
www.nsrp.ie and paul.nsrp@iol.ie