

La sorveglianza: i risultati del Piemonte

Alessandro Vigo

Centro SIDS Regione Piemonte

*Azienda Ospedaliera O.I.R.M - S. Anna
Torino*



Totale nati triennio 2004 -2006
112.500

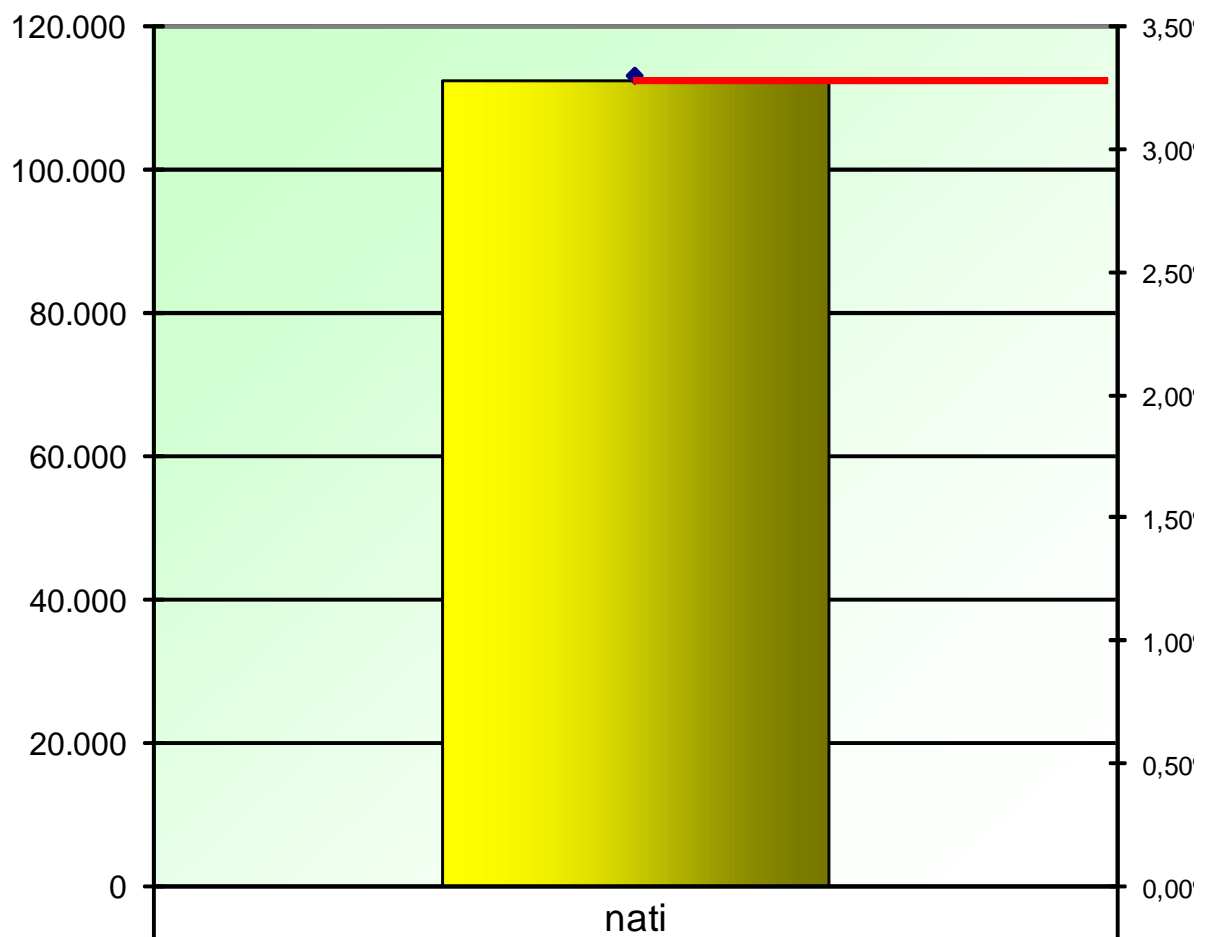
Totale morti triennio 2004 -2006
369



triennio 2004 - 2006 rapporto nati / morti

x MILLE

Centro SIDS



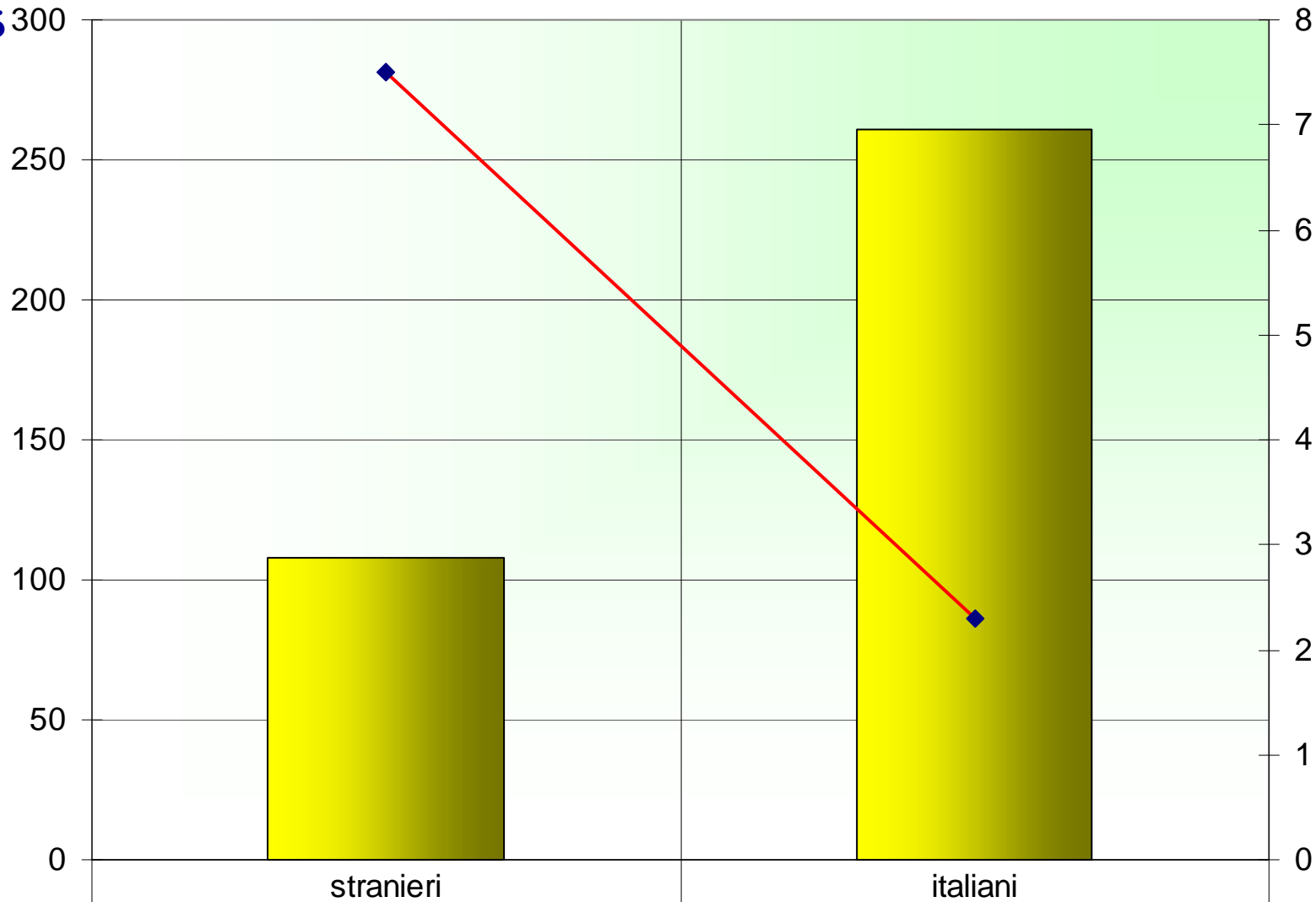
nati	112.515
rapporto nati / morti	3,3 X mille



triennio 2004 - 2006 rapporto nati/morti italiani/stranieri

Centro SIDS

x MILLE



morti	108	261
rapporto nati/morti	7,5	2,3

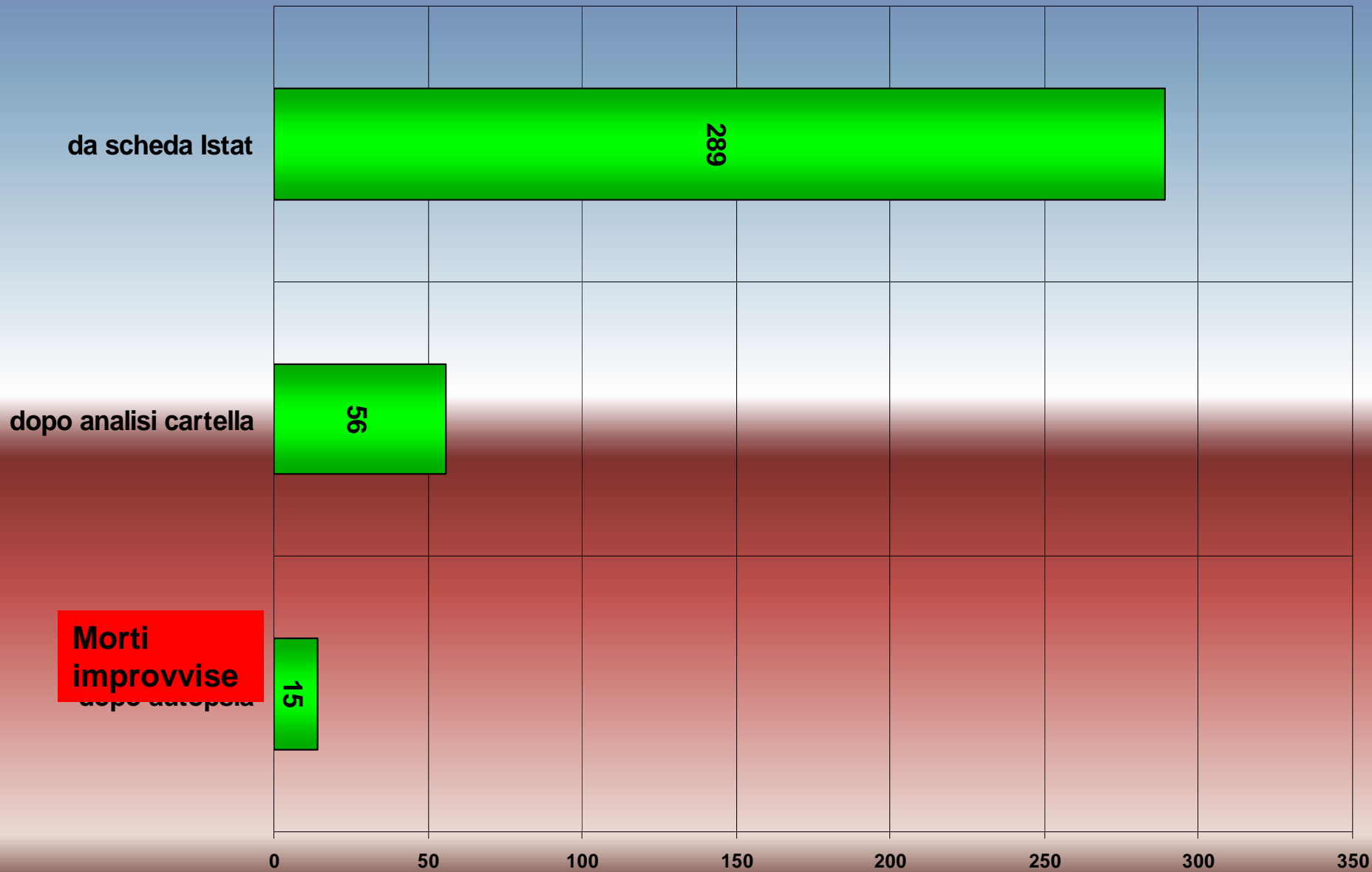
USA

Mortalità infantile 1995-2004

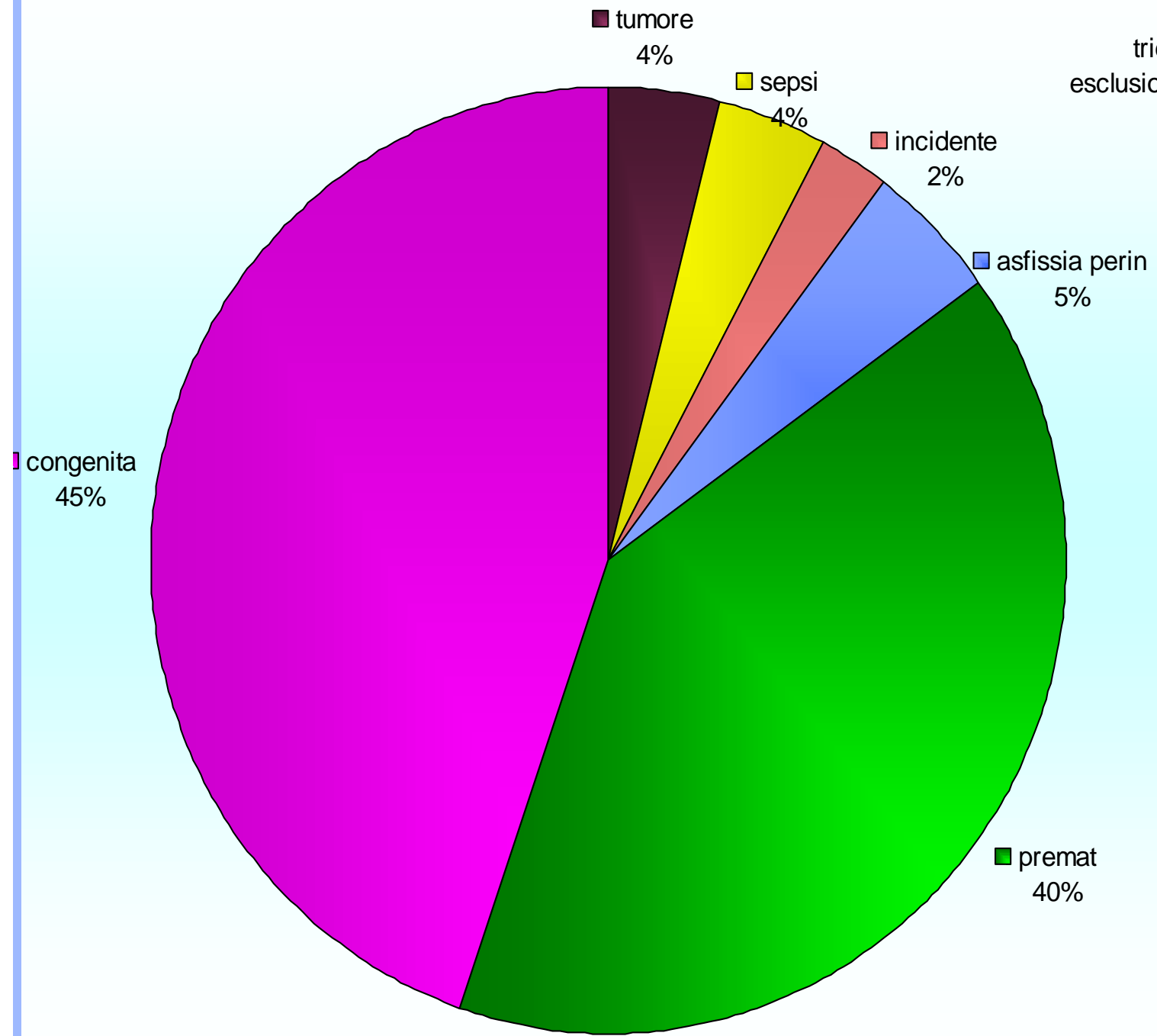
NERI: 15 ‰

BIANCHI: 5 ‰

triennio 2004 / 2006
dinamica esclusione casi



triennio 2004 / 2006
esclusione al 1° stadio analitico



triennio 2004 / 2006

esclusione - al 2° stadio analitico
■ infettiva
14%

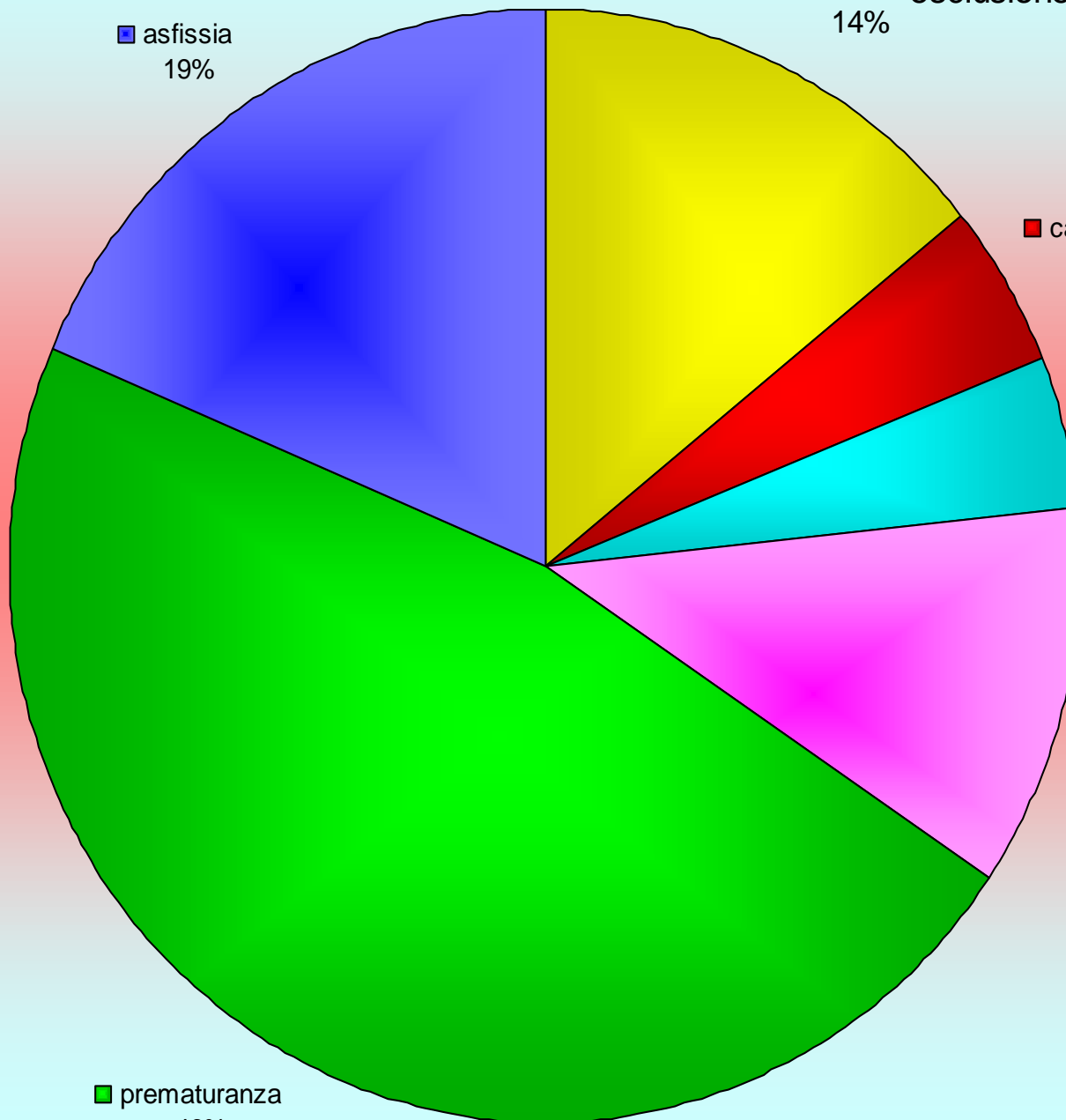
■ asfissia
19%

■ cardiaca
5%

■ respiratoria
5%

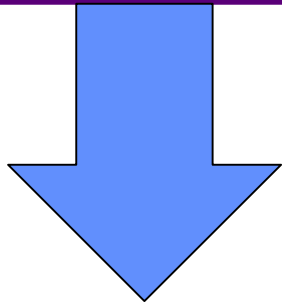
■ congenita
11%

■ prematuranza
46%

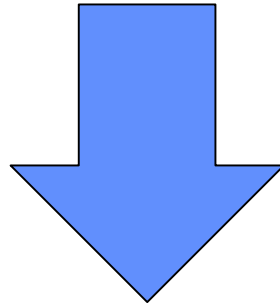


15

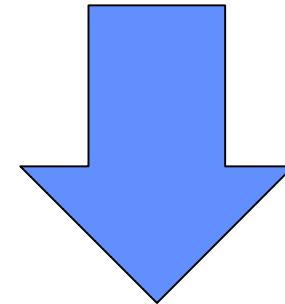
**morti improvvise nel primo anno di vita
su 112.500 nati (=0,1‰)**



**7 SIDS
(0,06‰)**

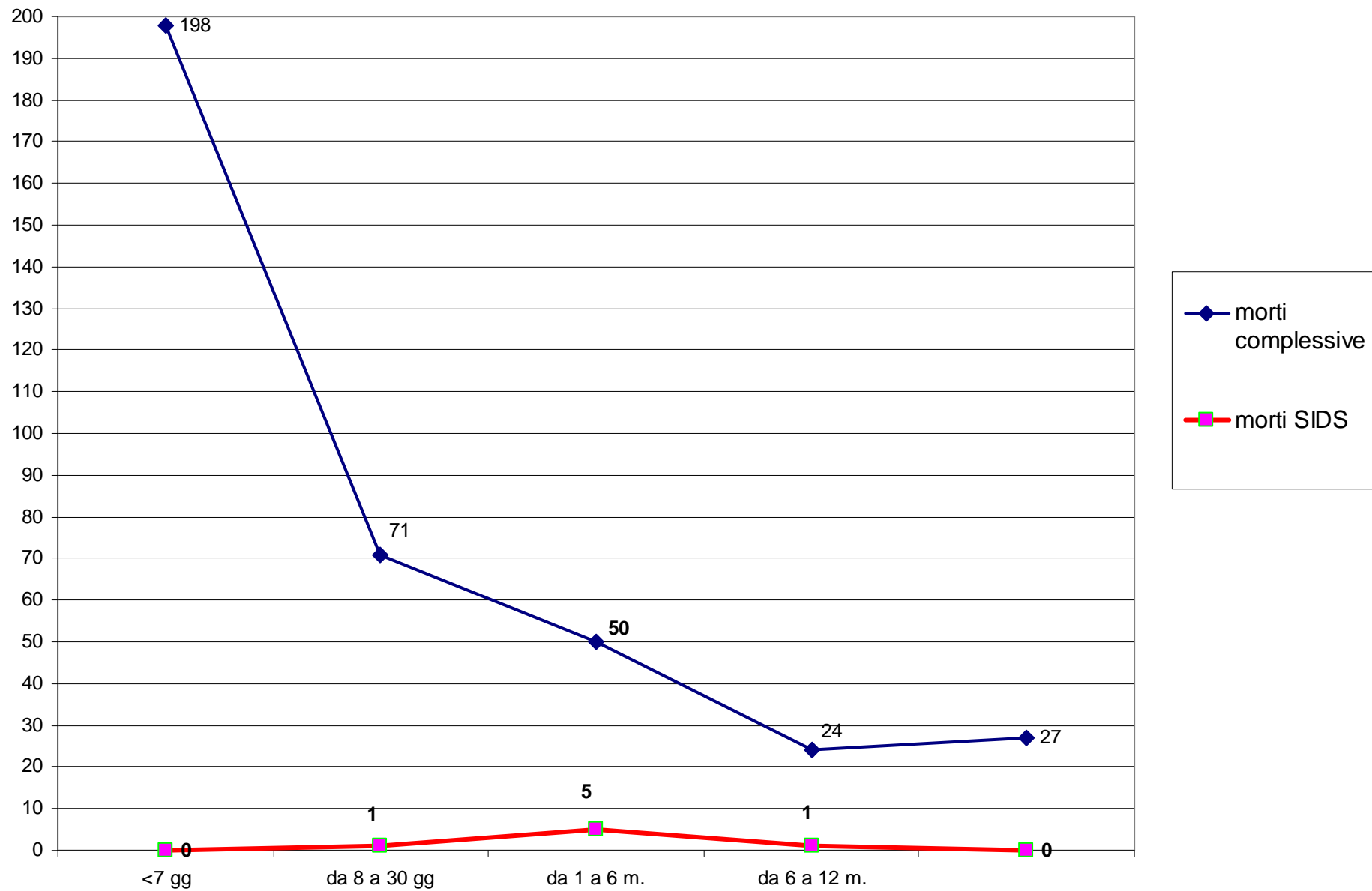


4 SUDI

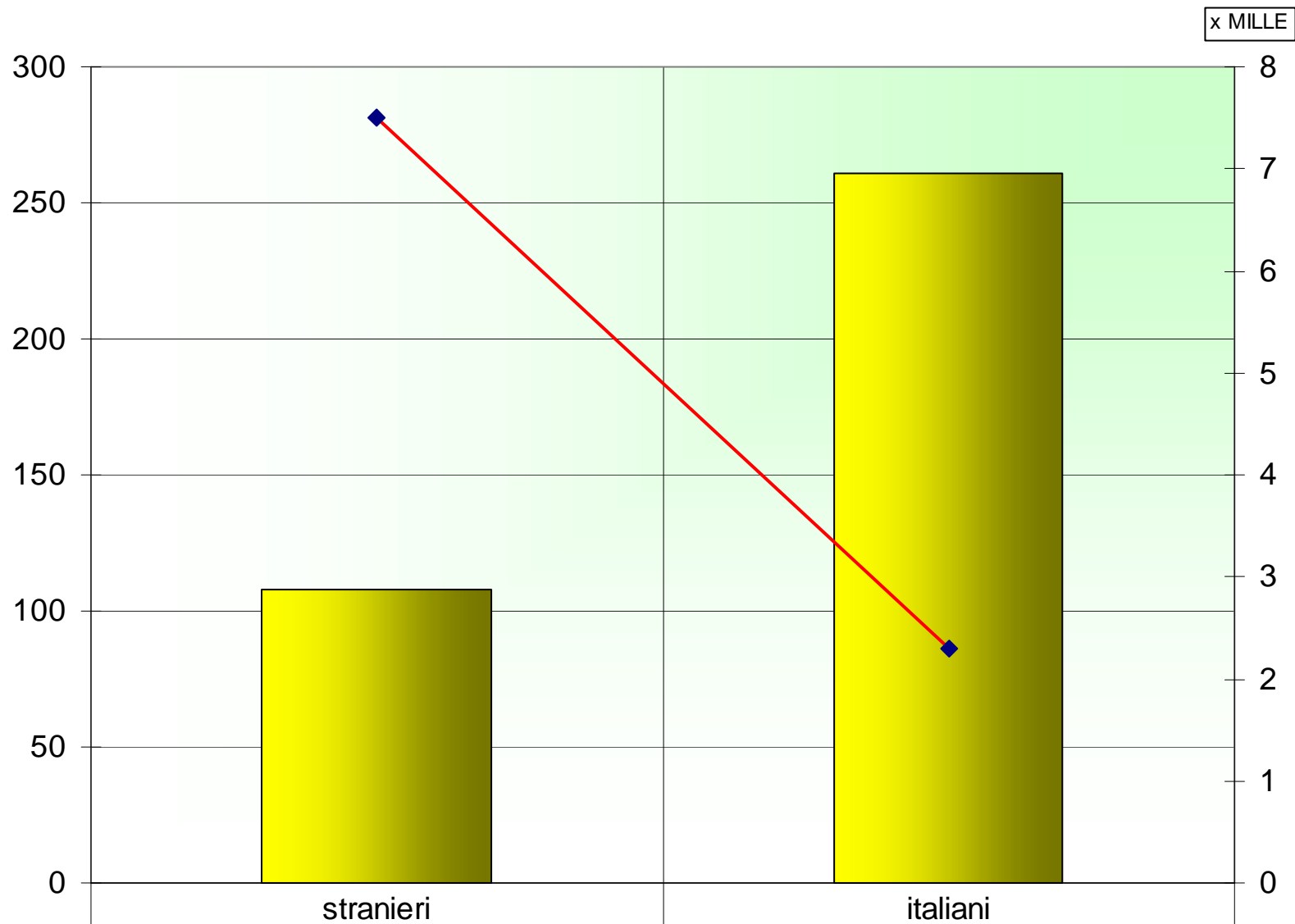


**4 non
definite**

triennio 2004 / 2006 - andamento morti complessive / morti SIDS

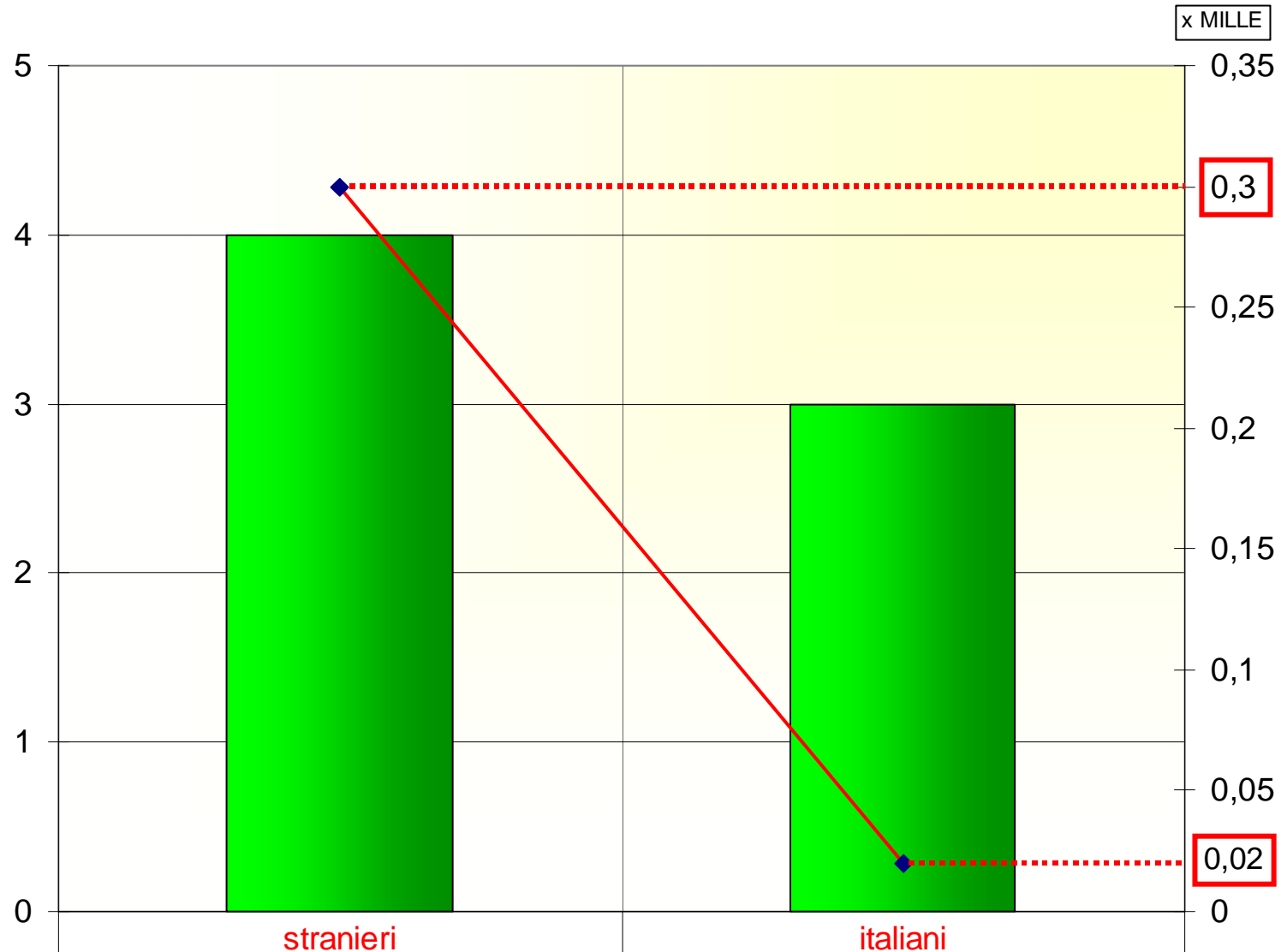


triennio 2004 - 2006 rapporto nati/morti italiani/stranieri



 morti	108	261
 rapporto nati/morti	7,5	2,3

Centro SIDS

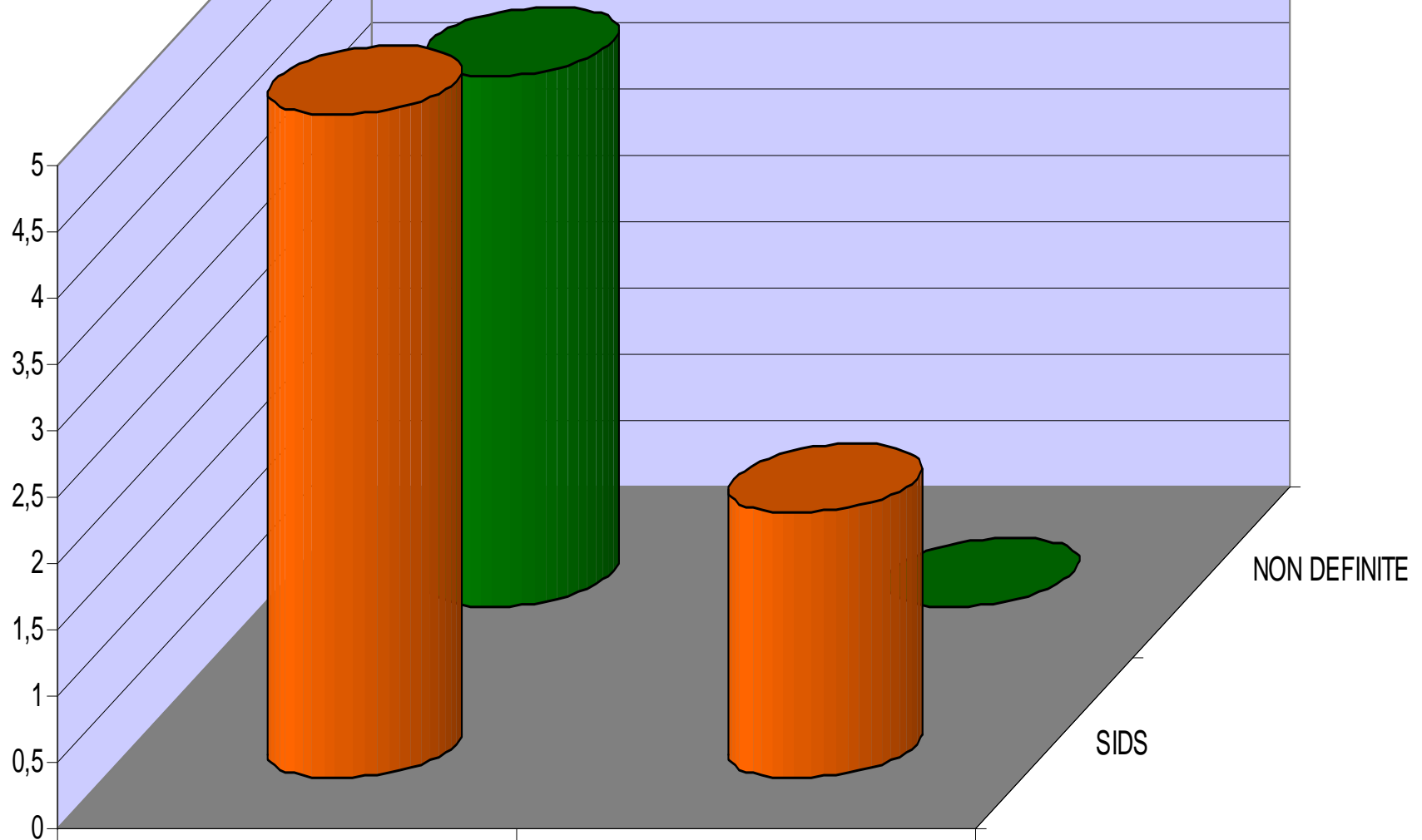


 morti SIDS	4	3
 rapporto SIDS / nati	0,3	0,02

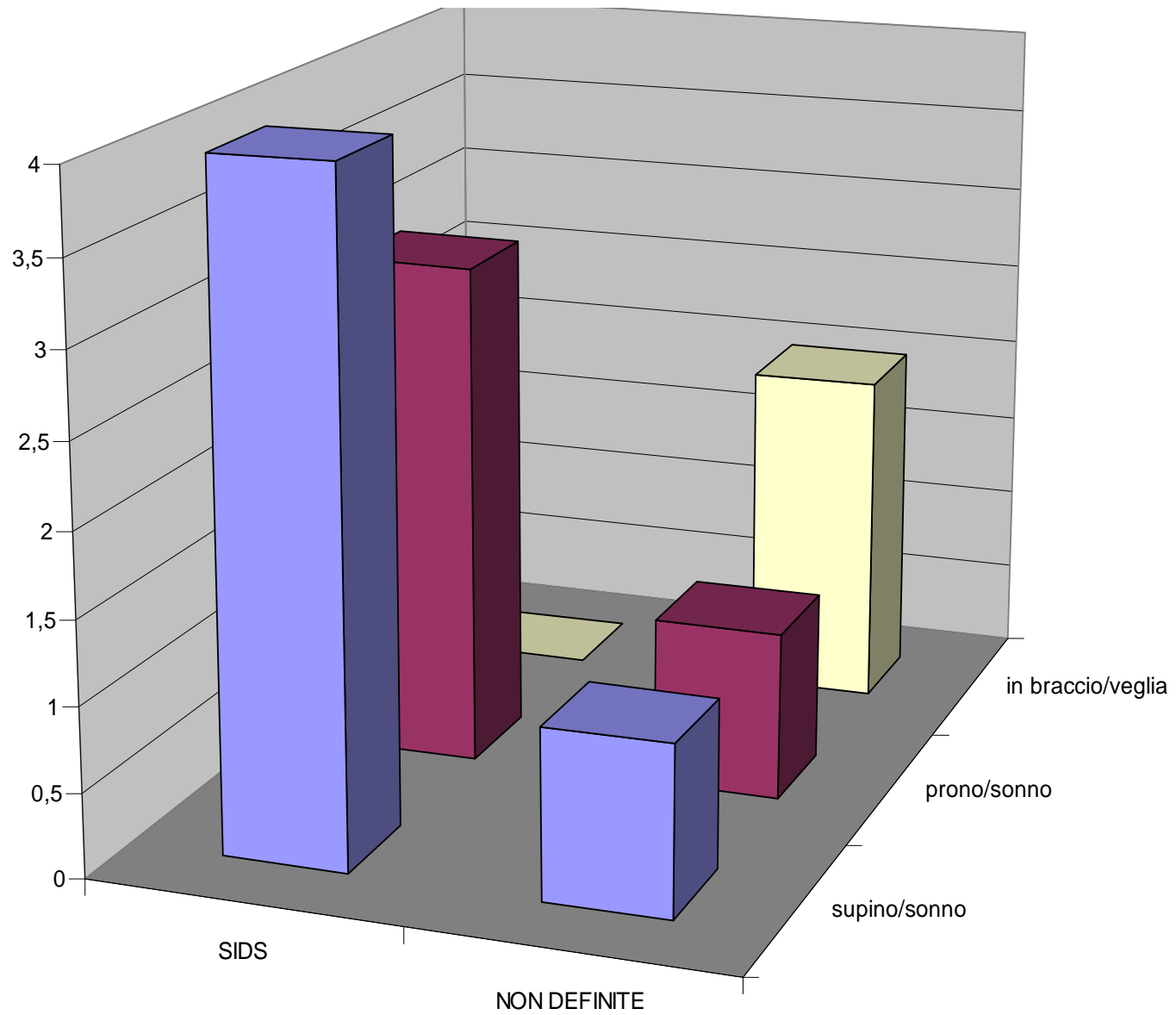
Centro SIDS

	cases	pop	rate	LL	UL	chi-2	df	p-value
SIDS-ITA	4	98215	4,1	1,6	10,5			
SIDS-non-ITA	3	14300	21,0	7,1	61,7			
SIDS-TOT	7	112515	6,2	3,0	12,8	5,735	1	0,017
Undefined Death-ITA	3	98215	3,1	1,0	9,0			
Undefined Death-non ITA	1	14300	7,0	1,2	39,6			
Undefined Death-TOT	4	112515	3,6	1,4	9,1	0,545	1	0,461
SUDI-ITA	4	98215	4,1	1,6	10,5			
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Tot. Sudden Deaths-ITA	11	98215	11,2	6,3	20,1			
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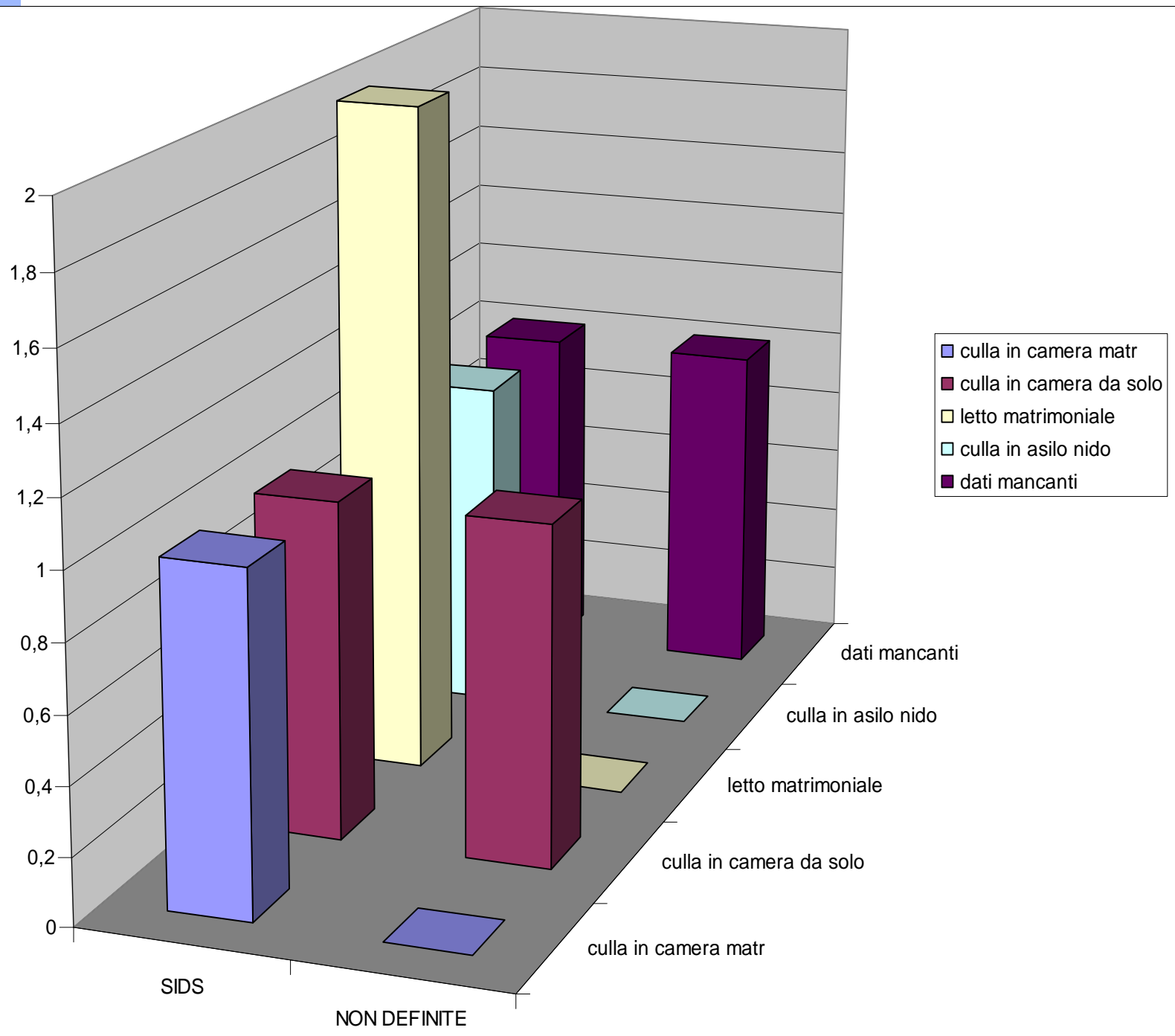
Triennio 2004-2006: stagionalità SIDS e "non definite"



	ott/mar	apr/sett
█ SIDS	5	2
█ NON DEFINITE	4	0



	SIDS	NON DEFINITE
■ supino/sonno	4	1
■ prono/sonno	3	1
■ in braccio/veglia	0	2



QUANDO LA PREVENZIONE E' DIFFICILE

Alessandro Vigo

Torino

*12 novembre
2008*

Lattante di 40 giorni

Durante uno dei frequenti episodi di coliche gassose...

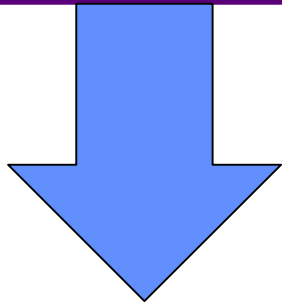
**.. la mamma lo pone prono nella culla ,
mentre ancora piange,
per farlo addormentare...**

**.. dopo 20 minuti circa la mamma si reca
dal piccolo per girarlo e metterlo supino...**

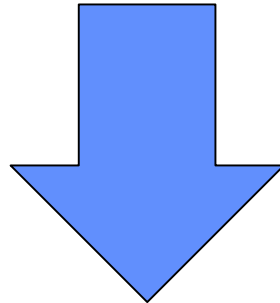
...e il bambino non c'è più...

15

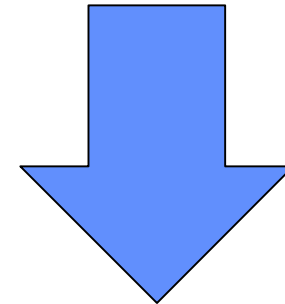
**morti improvvise nel primo anno di vita
su 112.500 nati (=0,1‰)**



**7 SIDS
(0,06‰)**



4 SUDI



**4 non
definite**

DDR, fino al 1988  0,02‰

Hong Kong 1999-2003  0,16‰

L'epidemiologia della SIDS si modifica

Campagne

Classificazione

Krous HF, Beckwith JB, Byard RW.
Sudden Infant Death Syndrome and unclassified Sudden Infant Deaths: a
definitional and diagnostic approach.
Pediatrics, 2004.

"The sudden unexpected death of an infant < 1 year of age, with the onset of the fatal episode apparently occurring during sleep, that remains unexplained after a thorough investigation including performance of a complete autopsy and review of the circumstances of death, and of the clinical history."

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Torino

12 novembre
2008

SHORT REPORT

How reliable are SIDS rates?

K M Sheehan, C McGarvey, D M Devaney, T Matthews

Arch Dis Child 2005;**90**:1082–1083. doi: 10.1136/adc.2004.062463

There is increasing concern with using SIDS as a diagnosis, especially where the postmortem examination reveals additional findings that may be contributory to the death exclusion. This report shows how varying the criteria for a diagnosis of SIDS significantly alters the SIDS rate in Ireland.

The sudden and unexpected death of an infant (SUDI) results in a mandatory postmortem examination in most western countries. Where no adequate cause of death is found, the term sudden infant death syndrome (SIDS) is generally applied and is widely accepted as a natural cause of death. However, in many SIDS cases, there are additional pathology findings, slightly worrying parental practices (infant co-sleeping with parental alcohol consumption), an unusual history or death scene investigation—all of which could be implicated in the infant's death.

Many pathologists, and coroners, are dissatisfied using the term SIDS where they cannot definitively rule out accidental, environmental, or unnatural causes of death. Accordingly, the use of the term "unascertained" has risen considerably in

the effect on the SIDS death rate (fig 1; see footnote for definition of variables).

RESULTS

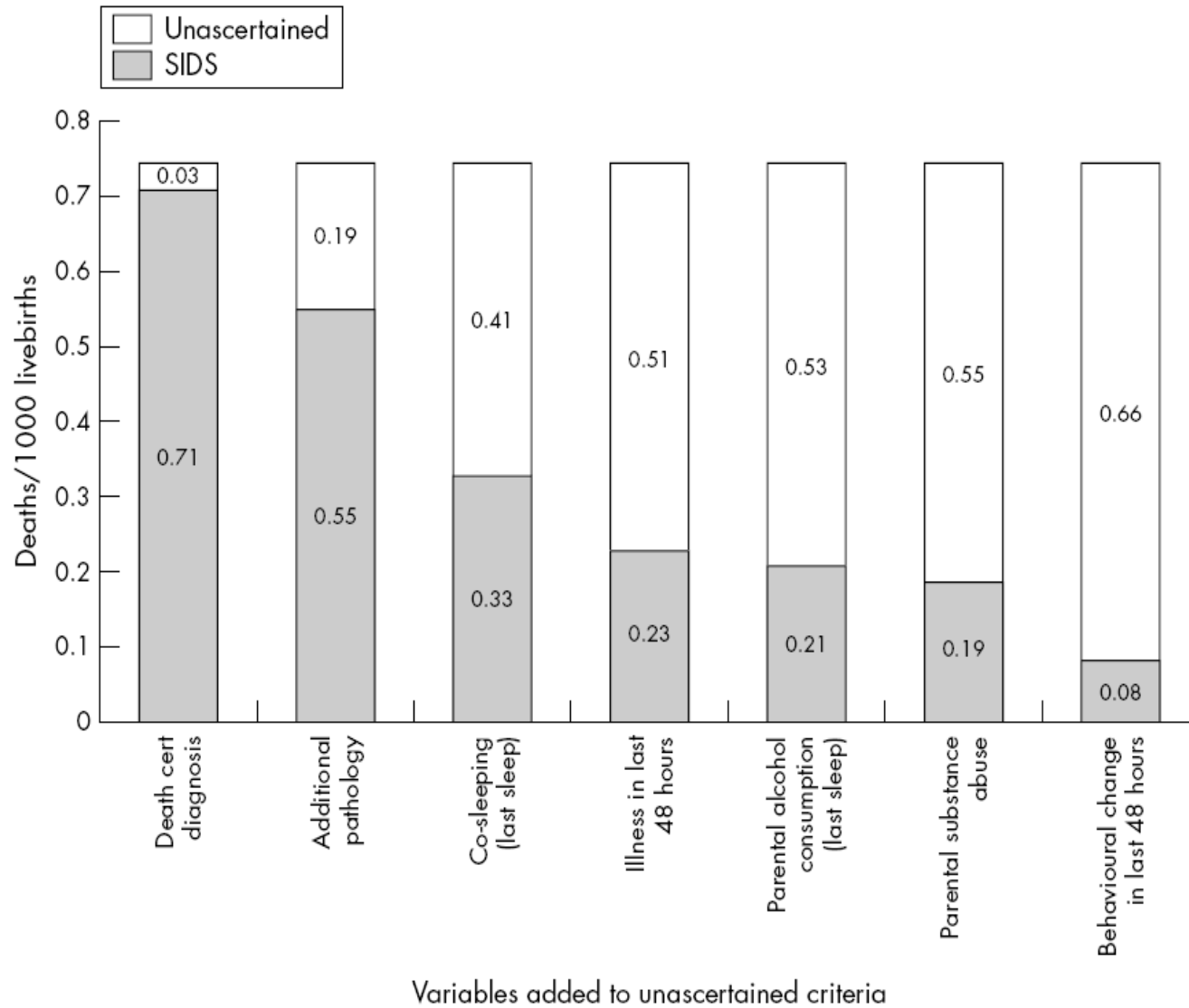
There were 360 304 live births registered in Ireland during the years 1994–2000. A total of 315 cases of SUDI (<52 weeks) were registered with the NSIDR during this period. In 93% of cases (n = 293), the postmortem examination reports were available for analysis. Following the postmortem examination, a cause of death was found for 9.2% of cases (n = 27), 87.4% (n = 256) were diagnosed as SIDS, and in 3.4% (n = 10), the cause of death was originally classified as "unascertained".

In this original classification, the SIDS rate was 0.71 and the unascertained rate was 0.03 deaths/1000 live births. When cases in which there was additional pathology stated in the postmortem examination report were included in the unascertained group, the SIDS rate dropped to 0.55 and the unascertained rate increased to 0.19. As additional variables were sequentially included in the criteria for "unascertained", the SIDS rate was finally reduced to a low of 0.08 (fig 1). The rate of unascertained deaths was correspondingly

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12 novembre
2008



SIDS: incidenza in Italia. Campagna Regione Lombardia

Nel periodo 1990-2000 l'incidenza della SIDS che risulta dall'esame di tutti i certificati di morte dei bambini < 1 anno di età, è stata 0,54/1000 nati vivi

Montomoli C et al.

Alessandro Vigo

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12 novembre
2008

Mortality due to sudden infant death syndrome in Northern Italy, 1990-2000: a baseline for the assessment of prevention campaigns.

Paediatr Perinat Epidemiol. 2004;18(5):336-343.

Fidarsi della scheda ISTAT?

Alessandro Vigo

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*12 novembre
2008*

da Scheda ISTAT **INCIDENTE STRADALE**

AUTOPSIA

- Il referto autoptico ha **escluso lesioni traumatiche** causanti la morte
- Morte attribuita a cause natura
- La mancata diagnosi di specifiche alterazioni d'organo depone per una

SIDS

4 SIDS NON CONFERMATE

M.M. età 1 mese

Scheda ISTAT: **SIDS**

Autopsia: **Broncopolmonite**

S.L. età 45 gg

Scheda ISTAT: **SIDS**

Autopsia: **Linfangectasia P.**

L.C. età 1 giorno

Scheda ISTAT: **SIDS**

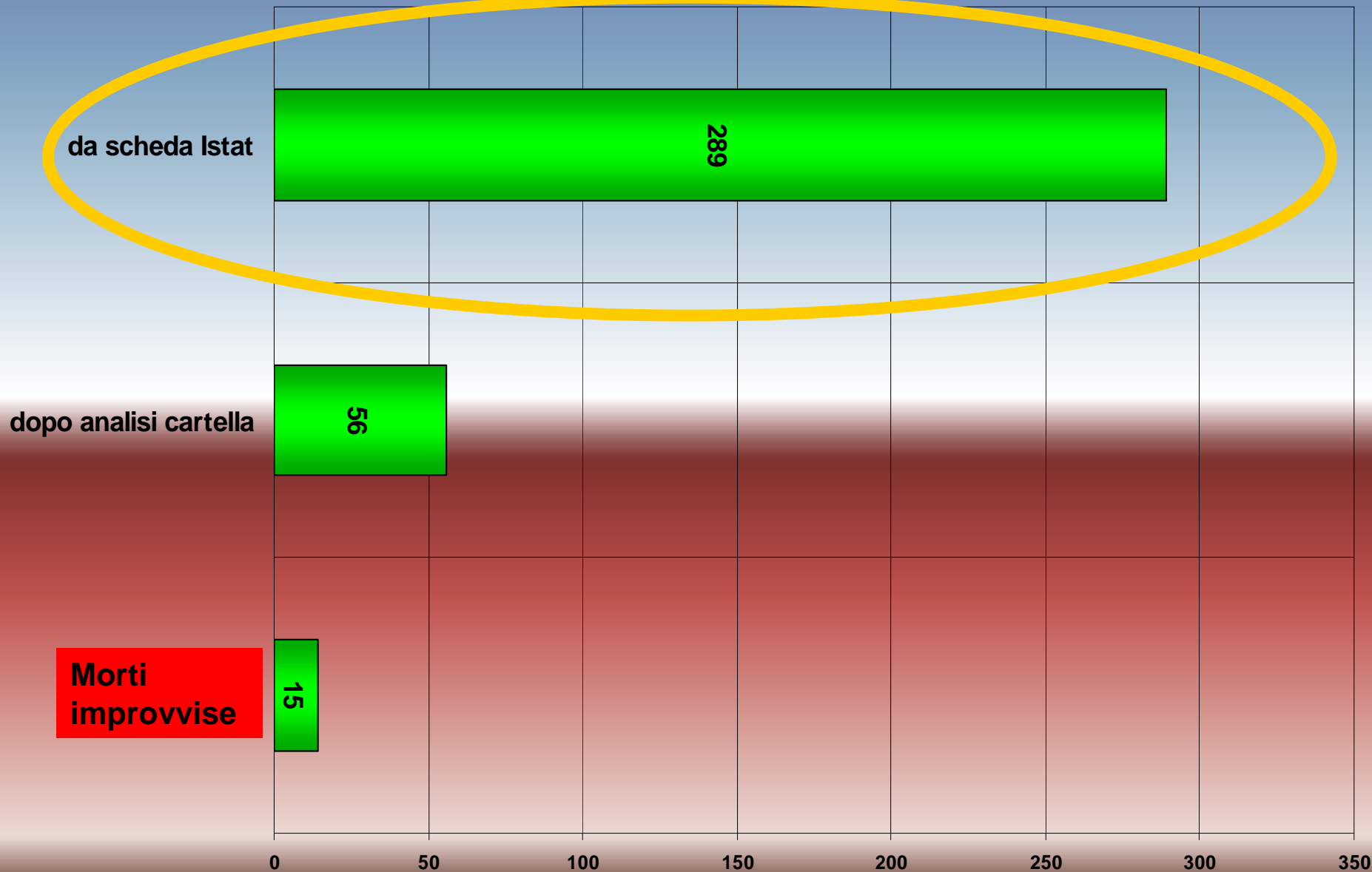
Autopsia: **Emorragia polmonare**

A.A. età 10gg

Scheda ISTAT: **SIDS**

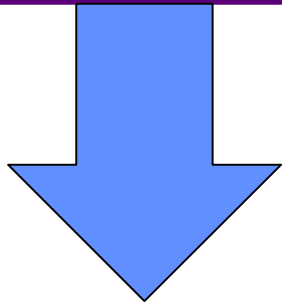
Autopsia: **Inalazione di meconio. Emorragia polmonare. Reazione simil D.I.P.**

triennio 2004 / 2006
dinamica esclusione casi

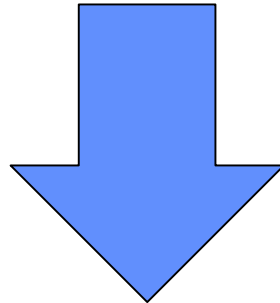


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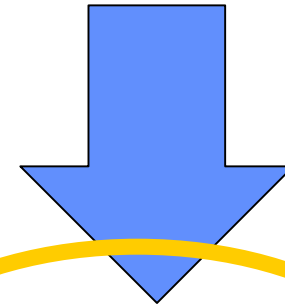
**morti improvvise nel primo anno di vita
su 112.500 nati (=0,1‰)**



**7 SIDS
(0,06‰)**



4 SUDI



**4 non
definite**

Investigation of unexplained infant deaths in Jerusalem, Israel 1996–2003

Eli M Eisenstein, Ziona Haklai, Shepard Schwartz, Aharon Klar, Nechama Stein, Eitan Kerem

Arch Dis Child 2007;**92**:697–699. doi: 10.1136/adc.2006.107425

See end of article for authors' affiliations

Correspondence to:
Eli M Eisenstein, Department of Pediatrics, Hebrew University-Hadassah Medical Center, POB 24035, Mount Scopus, Jerusalem 91240, Israel; eisenstein173@yahoo.com

Accepted 11 October 2006
Published Online First 30 October 2006

Background: Sudden infant death syndrome (SIDS) is a diagnosis of exclusion that may be assigned only after investigations including a forensic autopsy are performed to exclude possible organic and environmental causes of death. Israeli society is influenced by the Jewish and Islamic faiths, which permit autopsy only under selected circumstances. Against this background, we carried out a study to determine what examinations are performed to investigate unexplained infant deaths in Jerusalem, Israel.

Methods: We examined hospital, Ministry of Health and Ministry of Interior records of unexplained infant deaths in the Jerusalem district from the years 1996–2003.

Results: Ninety six cases were identified from all sources. Forty nine (51%) infants were brought to a hospital at or near the time of death. Studies to determine the cause of death were performed in 54% of cases for which medical records were available for review. These studies included bacterial cultures (44%), skeletal surveys (12%), computerised tomography (3%) and metabolic studies (3%). Only one forensic autopsy was performed, and in no instance was the death site examined by medical personnel. There was a high rate of retrospective review by district health physicians. The most frequently assigned cause of death was SIDS.

Conclusions : The capacity of public health officials and forensic pathologists to investigate unexplained infant deaths is strongly affected by the legal, religious and political milieu in which they work. Efforts should be made to develop socially acceptable methods of improving the quality of infant death investigations in Jerusalem.

L' AUTOPSIA è importante per il medico?

Alessandro Vigo

Torino

*12 novembre
2008*

da Scheda ISTAT

Arresto Cardio-Respiratorio a domicilio

AUTOPSIA

non eseguita....

ANAMNESI Soggetto di 60 giorni di vita

8 giorni prima del decesso

ricovero per bronchiolite

Sudden Infant Death Syndrome and Unclassified Sudden Infant Deaths: A Definitional and Diagnostic Approach

Henry F. Krous, MD*; J. Bruce Beckwith, MD‡; Roger W. Byard, MD§; Torleiv O. Rognum, MD, PhD||;
Thomas Bajanowski, MD¶; Tracey Corey, MD#; Ernest Cutz, MD*; Randy Hanzlick, MD‡‡;
Thomas G. Keens, MD§§; and Edwin A. Mitchell, MD|||

ABSTRACT. The definition of sudden infant death syndrome (SIDS) originally appeared in 1969 and was modified 2 decades later. During the following 15 years, an enormous amount of additional information has emerged, justifying additional refinement of the definition of SIDS to incorporate epidemiologic features, risk factors, pathologic features, and ancillary test findings. An expert panel of pediatric and forensic pathologists and pediatricians considered these issues and developed a new general definition of SIDS for administrative and vital statistics purposes. The new definition was then stratified to facilitate research into sudden infant death. Another category, defined as unclassified sudden infant deaths, was introduced for cases that do not meet the criteria for a diagnosis of SIDS and for which alternative diagnoses of natural or unnatural conditions were equivocal. It is anticipated that these new definitions will be modified in the future to accommodate new understanding of SIDS and sudden infant death. *Pediatrics* 2004;114:234–238; *SIDS, sudden infant death.*

tency with which the requirements of standard definitions have been fulfilled.^{3–5} Specifically, the term has been overused and applied to cases in which there have been obvious natural or unnatural causes of death; also, the term has been underused in favor of imprecise terms such as undetermined or unascertained. A number of other definitions that have included quite different criteria have been proposed.^{6–8} The most widely used definitions have made SIDS a diagnosis of exclusion.

In 1969, at the Second International Conference on Causes of Sudden Death in Infants, it was proposed that SIDS was “the sudden death of any infant or young child which is unexpected by history, and in which a thorough postmortem examination fails to demonstrate an adequate cause of death.”¹ In 1989, the National Institute of Child Health and Human Development convened an expert panel to reexamine the issue of definition. The panel proposed that

**“Absence of potentially
fatal pathologic findings”**

Alessandro Vigo

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*12 novembre
2008*

“Marked inflammatory changes
not sufficient to be
unequivocal cause of death”

da Scheda ISTAT

“ SIDS “

- **bambina di 33 giorni in buona salute**
- **morte avvenuta nel sonno**

- **l'autopsia esclude la SIDS**
- **morte per “quadro di tipo broncopneumonico”**

Alessandro Vigo

Torino

*12 novembre
2008*

ORIGINAL ARTICLE

Do risk factors differ between explained sudden unexpected death in infancy and sudden infant death syndrome?

M Vennemann, T Bajanowski, T Butterfaß-Bahloul, C Sauerland, G Jorch, B Brinkmann, E A Mitchell

Arch Dis Child 2007;**92**:133–136. doi: 10.1136/adc.2006.101337

See end of article for authors' affiliations

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Accepted 21 August 2006
Published Online First
25 August 2006

Background: In Germany, 2910 infants died in 2004; for many infants the reason was clear, especially prematurity or congenital abnormalities. However, 394 babies die every year suddenly and unexpectedly. The cause may be immediately clear, but is often not obvious.

Aims: (1) To describe the causes of explained sudden unexpected death in infancy (SUDI) and (2) to compare risk factors for sudden infant death syndrome (SIDS) and explained SUDI.

Methods: A 3-year population-based case-control study in Germany, 1998–2001.

Results: 455 deaths, of which 51 (11.2%) were explained. Most of these deaths were due to respiratory or generalised infections. The risk factors for SIDS and explained SUDI were remarkably similar except for sleep position and breast feeding. Prone sleeping position is a major risk factor for SIDS (adjusted odds ratio (OR) 7.16, 95% confidence interval (CI) 3.85 to 13.31) but not for explained SUDI (adjusted OR 1.71, 95% CI 0.25 to 11.57). Not being breast fed in the first 2 weeks of life is a risk factor for SIDS (adjusted OR 2.37, 95% CI 1.46 to 3.84) but not for explained SUDI (adjusted OR 0.39, 95% CI 0.08 to 1.83).

Conclusions: Prone sleeping position is a unique risk factor for SIDS. Socioeconomic disadvantage and maternal smoking are risk factors for both SIDS and explained SUDI, and provide an opportunity for targeted intervention.

In Germany, 2910 infants died in 2004. For some deaths the cause was obvious, such as extreme prematurity or con-

recruitment have been reported previously.^{7,8} Cases in which non-accidental injuries were suspected either during the

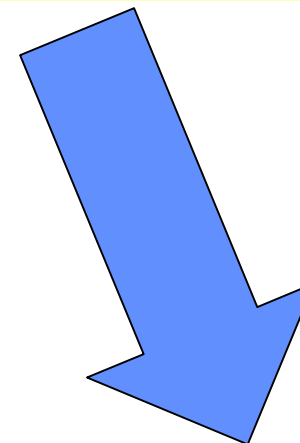
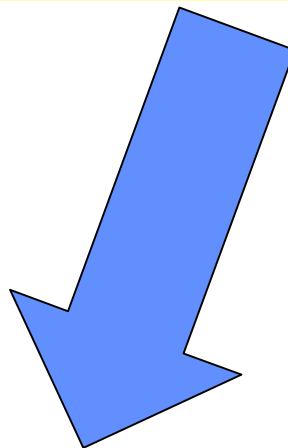
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12 novembre
2008

Fumo

Famiglie disagiate



SIDS

SUDI

I dati

Punto di partenza

Punto di arrivo

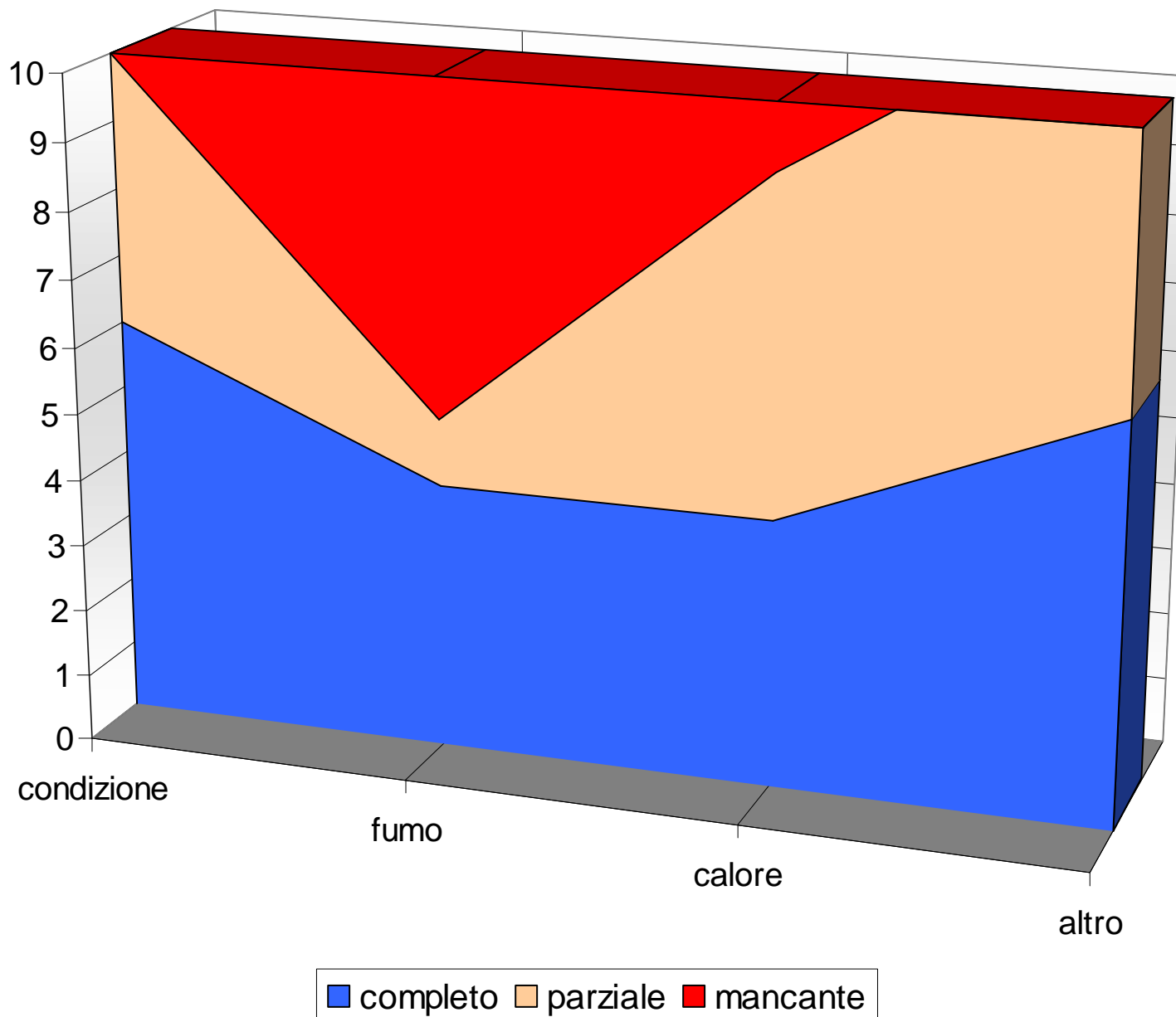
Si può sempre migliorare

Alessandro Vigo

Torino

*12 novembre
2008*

treennio 2004-2006 RACCOLTA DATI da I.E.



Preservare e descrivere lo scenario

Alessandro Vigo

Torino

*12 novembre
2008*

Questionario per i genitori

Alessandro Vigo

Torino

*12 novembre
2008*

Uniformare le procedure autoptiche

- Esame esterno
- Esame microscopico
- Indagini per malattie metaboliche

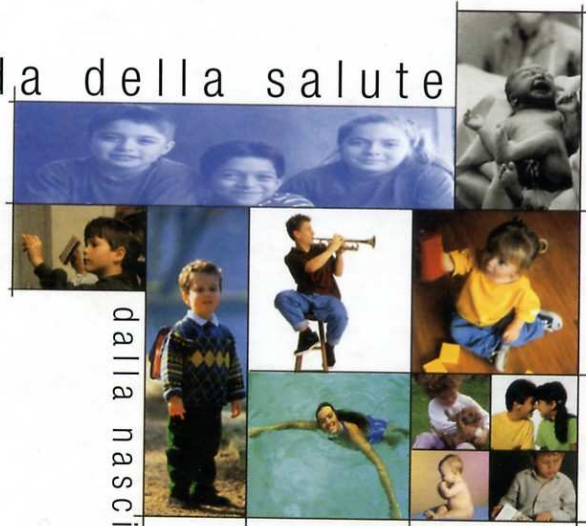
Valutare i fattori di rischio



Reclutare una popolazione di controllo

Che fare ?

agenda della salute



dalla nascita all'adolescenza

Alessandro Vigo

Torino

*12 novembre
2008*

Nanna Sicura



IL SUCCHIOTTO NON È UN ACCESSORIO INDISPENSABILE

*Semplici consigli importanti
per i primi mesi di vita
del vostro bambino*

1 Fate dormire il bambino sulla schiena

La mamma può stare più tranquilla mettendo il neonato in culla sulla schiena: la posizione sulla schiena è la più idonea per i primi mesi di vita su materasso duro e senza cuscino.



2 Non fumate nell'ambiente del bambino

I neonati tendono ad ammalarsi con più facilità se vivono in ambiente dove si fuma.



È bene che: la mamma non fumi durante la gravidanza e che anche dopo la nascita continui possibilmente a non fumare;



chieda a tutti i fumatori di non fumare nella stanza ed in presenza del bambino.

3 Fate in modo che non abbia troppo caldo

La posizione sulla schiena permette al neonato di regolare la propria temperatura

è importante non avvolgerlo troppo stretto nelle coperte

lasciate che la testa e le braccia si muovano liberamente

i bambini piccoli tendono ad avere un innalzamento della temperatura se sono avvolti da troppe coperte o piumini

se il vostro bambino ha la febbre avrà bisogno di meno coperte.



Controllate la temperatura del bambino: 19-20 gradi sono ideali per lui e per il vostro bambino

4 Allattatelo al seno per quanto possibile



Il latte materno è la prevenzione più naturale, meno costosa e più efficace per molte malattie: allattatelo al seno, per quanto possibile.

Campagna Nazionale

genitori più



prendiamoci più cura della loro vita

(accordo sottoscritto dal Ministero della Salute,
Regione Veneto e ULSS 20 Verona).

Campagne "mirate"



...sulla base dei dati

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Piemonte 2003

36 neonatologie → 48% dei neonati supini

a 3 mesi →

- 62,3% supini
- 30,6% lato
- 7,1% proni

**Prevenzione
“ambientale”**

**Mirata agli
Operatori...**

**Perché i genitori
ascoltano ed
“imitano”**

**“There is evidence that
mother will tend to copy
the practices at home that
they observe health care
professional practicing in
the hospital”**

Prevenzione “ambientale”

**Mirata agli
Operatori...**

**...e alle
famiglie
disagiate**

Alessandro Vigo

Torino

*12 novembre
2008*



Centro SIDS



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Torino

12 novembre 2008

L'Eroica Battaglia che ha fermato un'invasione

IL CORAGGIO E L'INTELLIGENZA STRATEGICA SABAUDA CONTRO LA FORZA D'IMPATTO EN UNO DEI PIU' IMPONENTI ESERCITI DELL'EUROPA SETTECENTESCA.

RELIPIVUS E MILES PIERO MICA E BELLASCO DI TORINO NEI 1706 PERSICOMI IN TUA DI MARCO GREGGIA REGISCIARI MARINO CARRELLI MASCINI E ALBERTO CASALE E DON CRAMIN E DANIELI TASSIANO E TAVO: BIAZZOLETTA MILES MARCO CARRELLI

CONTENUTI OMAGGIO
 Bulphotos e Regione Piemonte presentano: "Torino 1706, L'alba di un Regno"
 La più grande battaglia della storia della prima capitale d'Italia

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ITALY

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IN OMAGGIO IL DVD "TORINO 1706, L'ALBA DI UN REGNO"

LA BATTAGLIA DE L'ASSIETTA

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Comunque in Piemonte:

- C'è un 118 che funziona

- abbiamo dei dati

66 morti improvvise 2004/06

expected

- c'è un Centro SIDS in grado di gestire i soggetti a rischio