Commission of Inquiry on Hormone Receptor Testing
Part II – Symposium: Looking Forward….
Inco Innovation Centre
Memorial University, St. John's, NL
April 22 – 23, 2008

The Patient Safety Movement: a personal view

Peter G. Norton, Professor
Department of Family Medicine
University of Calgary

Harvard Medical Practice Study

Brennan et al. NEJM 1991; 324: 370-376

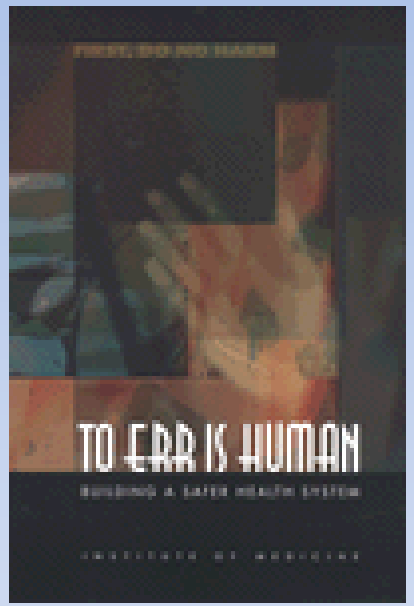
- Population-based study of iatrogenic injury in patients hospitalized in NY State in 1984
- Nearly 4% experienced an injury that prolonged their hospital stay or resulted in measurable disability.
- 180,000 people die each year partly as a result of iatrogenic injury
- Equal to three jumbo jet crashes every 2 days
- Almost no effect except in Australia ...

Quality In Australian Health Care Study
Wilson et al 1995

- Examined 14,000 admissions to 28 hospitals in New South Wales and South Australia
- Adapted HMPS methods, but redefined adverse event with a quality focus
- 16.6% of admissions were associated with an adverse event of which 51% were considered highly preventable
- 4.9% of the patients died
- The AEs accounted for, on average, 7.1 additional bed days
- Political turmoil but little real work in Australia

1999

- *To Error is Human: Buidling a Safer Health System* is published by the Committee on Quality of Health Care in America, Institute of Medicine



May 2001

- G. Ross Baker & Peter Norton received funding to prepare a Report for Health Canada
- Goal: To provide an overall picture of patient safety in the Canadian healthcare system through a literature review and survey
  - Identify the extent of the patient safety problem in Canada
  - Provide information on current efforts in Canada to see how Canada compares with other countries and to guide action
- Completed and released in early 2002
- Patient Safety and Healthcare Error in the Canadian Healthcare System

http://www.hc-sc.gc.ca/hcs-sss/pubs/care-soins/2001-patient-securit-rev-exam/index_e.html

Recommendations Based on Research

1. Build awareness and set priorities to improve safety
2. Develop better reporting systems
3. Create organizational and policy supports for patient safety efforts
4. Build skills, disseminate knowledge and implement systems to improve safety

1. BUILD AWARENESS AND SET PRIORITIES TO IMPROVE SAFETY

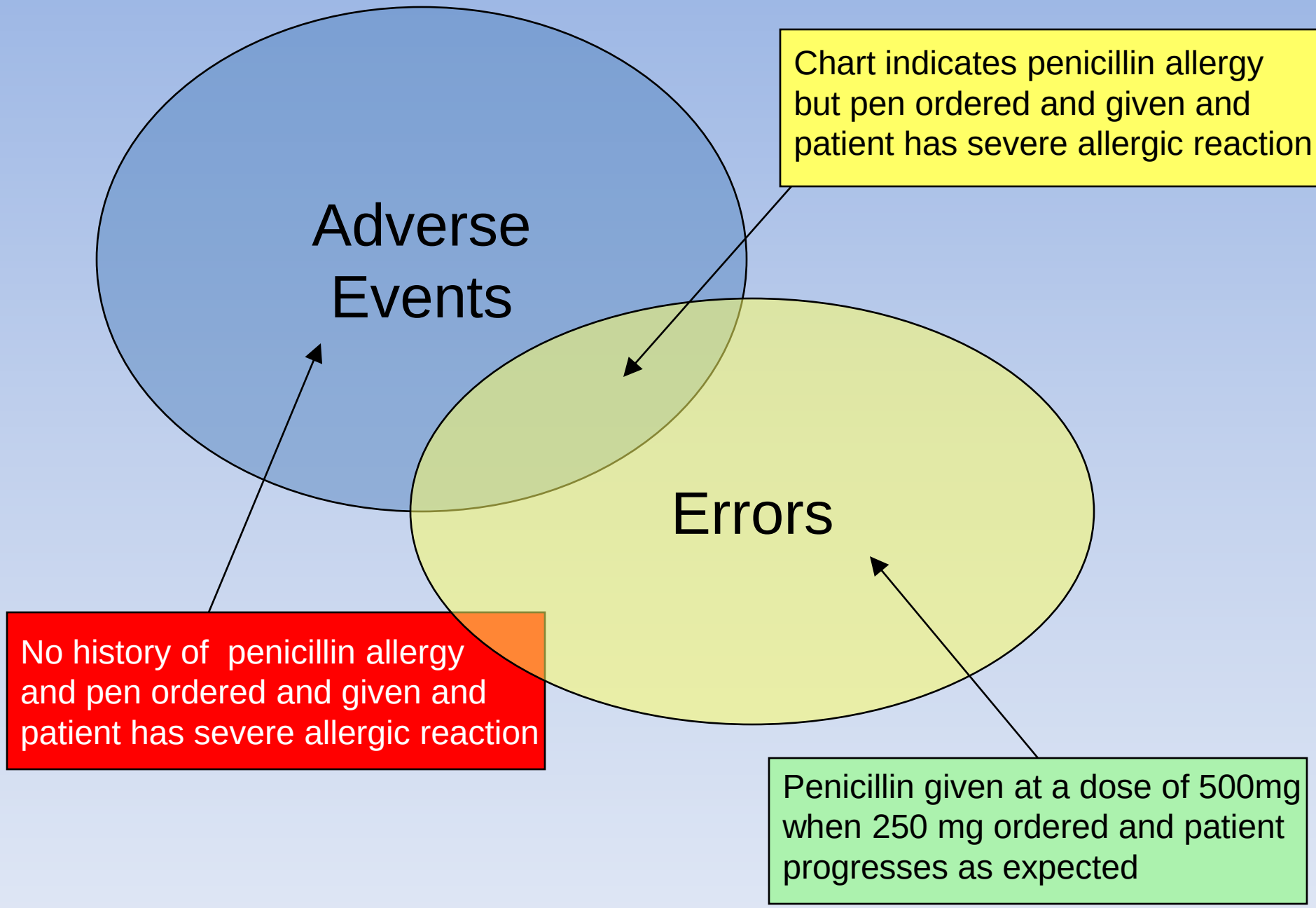
1. Canadian Adverse Event Study

Our federal funders (CIHR and CIHI) put out an RFP for a study to determine the rate of AEs in Canadian Acute Care hospitals

<u>Adverse Event</u>
(bad outcome from care)

"An unintended injury or complication which results in disability, death or prolonged hospital stay and is caused by health care management."

(*Wilson, et al.*)


Adverse Events
Errors
Chart indicates penicillin allergy but pen ordered and given and patient has severe allergic reaction
No history of penicillin allergy and pen ordered and given and patient has severe allergic reaction
Penicillin given at a dose of 500mg when 250 mg ordered and patient progresses as expected

The Canadian Adverse Event Study was initiated in 2002 and data collection was completed in Fall 2003

- As in HMPS and Australia used reviews of hospital records to identify adverse events and assess whether these events might be prevented
- Published in the Canadian Medical Association Journal on May 25, 2004
- Paper was downloaded over 25,000 times in the first four days
- 43 national and regional media contacts

Key Numbers from the Canadian Adverse Events Study

- The overall AE rate found in the study was 7.5% [CI 5.7 -9.3] – this means 1 in 13 adult hospital patients in year 2000 experienced an AE
- 2.8% of patients had one or more *preventable* AEs [CI 2.0 – 3.6] (i.e. 37.3% of AEs were preventable)
- The number of AEs and preventable AEs is similar to results from the UK, New Zealand, Spain, Holland, Denmark, Australian and Brazil.

Dissemination and Impact

- Paper was downloaded over 25,000 times in the first four days
- Over 40 national and regional media contacts in the first 4 weeks
- Multiple presentations over the next year
- Acceleration of patient safety initiatives in Canada

Build awareness and set priorities to improve safety II

- The Canadian Patient Safety Institute (CPSI) was established in 2003

  – $50 (Can) million funding for 2003-2008
  – National coordination of patient safety work and support of healthcare professionals in their development and implementation of patient safety programs

2. DEVELOP BETTER REPORTING SYSTEMS

- Canadian Medication Incident Reporting and Prevention System (CMIRPS) development continues
- September 15, 2004 Saskatchewan introduced regulations requiring regional health authorities to report “critical incidents ” to Sask Health
  - The intent of the regulation is to improve patient safety by identifying opportunities for
- The BC patient safety task force is in the process of implementing an electronic, province-wide reporting system called the BC *Patient Safety and Learning System*
- Alberta has passed legislation that will allow us to share results of RCA across the province

3. CREATE ORGANIZATIONAL AND POLICY SUPPORTS FOR PATIENT SAFETY EFFORTS

- All provinces have introduced some form of protection for investigation of AEs
- Disclosure is supported and /or mandated at various levels across the country and CPSI has developed a national disclosure framework
- Since 2005 the Canadian Council on Hospital Accreditation has increasingly emphasized safety in its accreditation processes through the introduction of Required Organizational Practices for Patient Safety

4. BUILD SKILLS, DISSEMINATE KNOWLEDGE AND IMPLEMENT SYSTEMS TO IMPROVE SAFETY

- Little progress on the educational front for new health professionals
- Lots of CPD opportunities
- CPSI demonstration projects and research grants
- Between 1999 and 2006 CIHR funded 39 initiatives involving patient safety, with a total value of $5,457,530
  - 75% were funded after 2002
- Increasing involvement of the public – e.g. Winnipeg Health Region Patient Safety Advisory Council

Build skills, disseminate knowledge and implement systems to improve safety II

Jack Davis, President and CEO, Calgary Health Region

December 14, 2004 - Jack Davis, the CEO of the Calgary Health Region was at a in Florida where Dr. Don Berwick expressed his impatience with the pace of change in patient safety and dramatically tossed down an unprecedented gauntlet and announced a “campaign to save 100,000 live in the next 18 months in American hospitals

Dr. Ward Flemons the Vice-President, Quality, Safety & Health Information of the region was sitting beside Jack who suggested to Ward – “We should do this in Calgary”

When Ward returned to Calgary he phone me and said lets get on with it!

I said lets do all of Canada and got Ross Baker involved and we developed and launched Safer Healthcare Now! over the next 4 months

A Canadian Campaign

- We would follow the American lead but needed to "Canadianize" the approach
- We would align the existing Canadian expertise in clinical areas with quality improvement experts to form faculties to assist front line teams achieve best possible care at the bedside
- They teams would work to implement six targeted, low tech and proven interventions in hospital based patient care
- Welcome anyone at any level
- We do this together (i.e. we are forming 'communities of practice')

6 Key Interventions

- Deployment of Rapid Response Teams
- Delivery of reliable, evidenced based care for acute myocardial infarctions
- Prevention of ADEs
- Prevention of central line infections
- Prevention of surgical site infections
- Prevention of ventilator- associated pneunomia

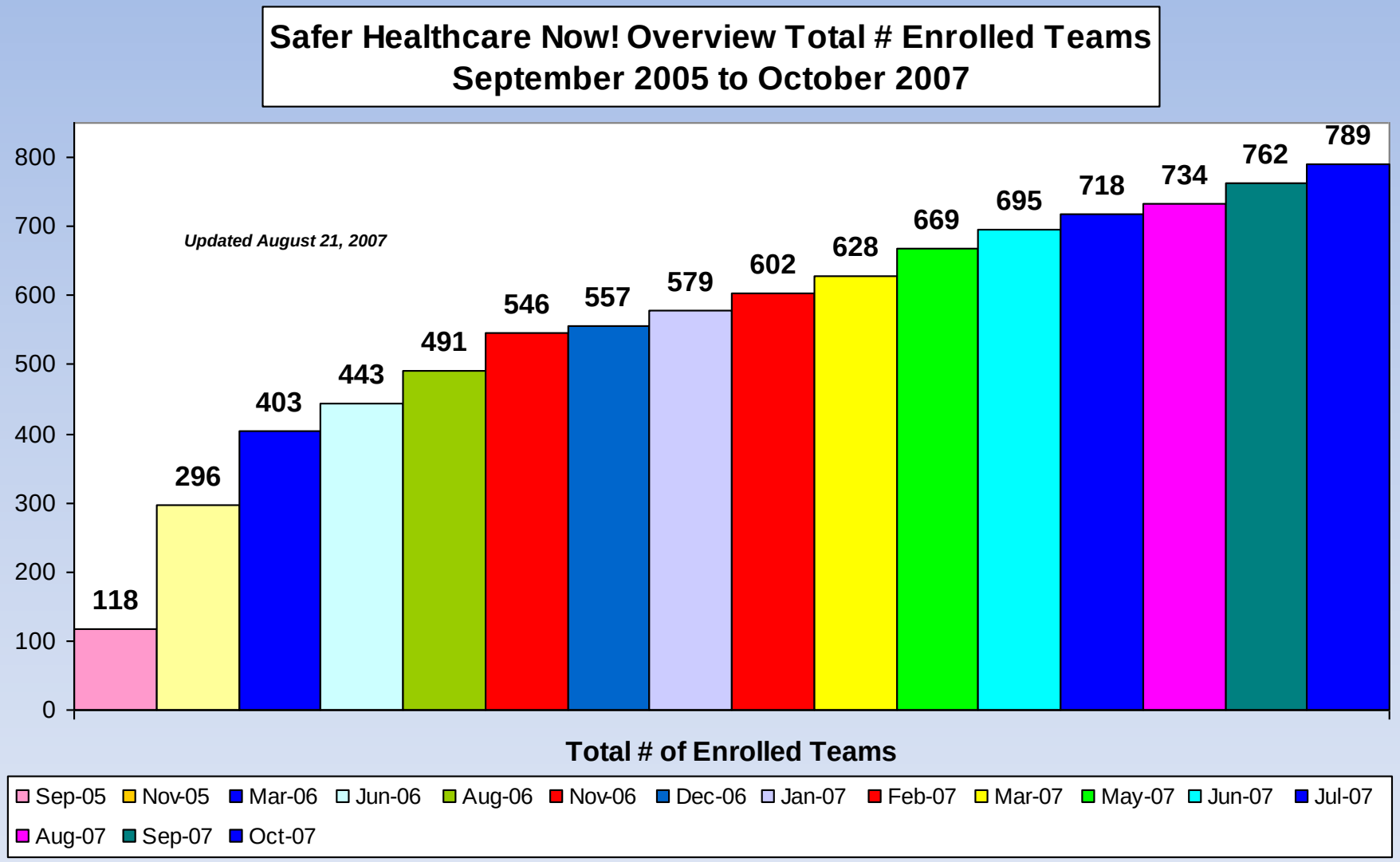
A Canadian Campaign

- Funding was secured from
  - The CPSI
  - The Provinces
  - Provincial Quality and Safety organizations
- We launched on April 12, 2005
  - We structured with four regional nodes
  - A national coordinating group was established
  - National faculties for each intervention were defined
  - Getting started kits had been prepared
- Our goal was to enroll 100 or more frontline teams to work on improvement and safety through December 2006

The Western Node

- Staff of 4 – secretary, two quality and safety advisors, a team director and me (unpaid)
- Team support, web based support, site visits, local and national learning conferences, many teleconferences
- National measurement team collects and feeds back team performance

Teams Continue to Enroll

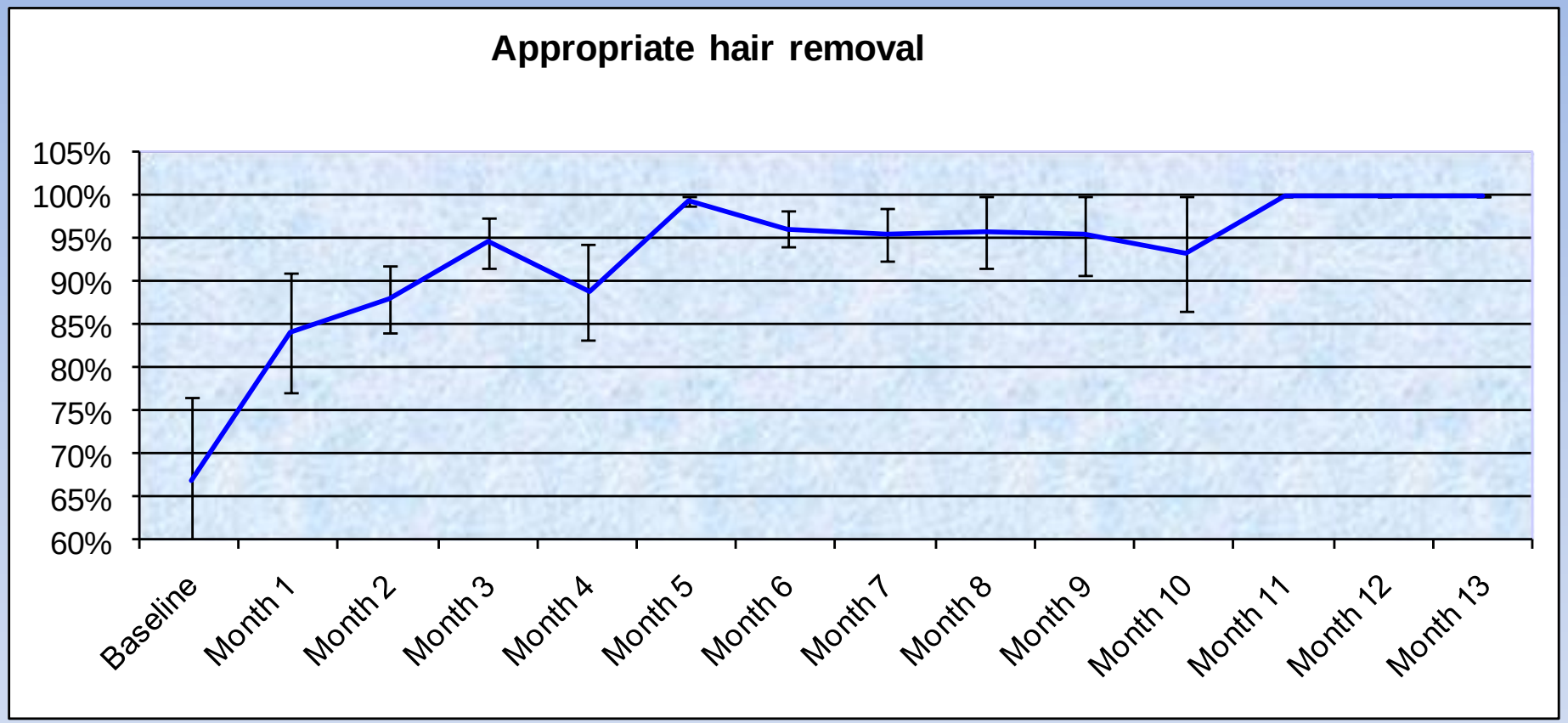


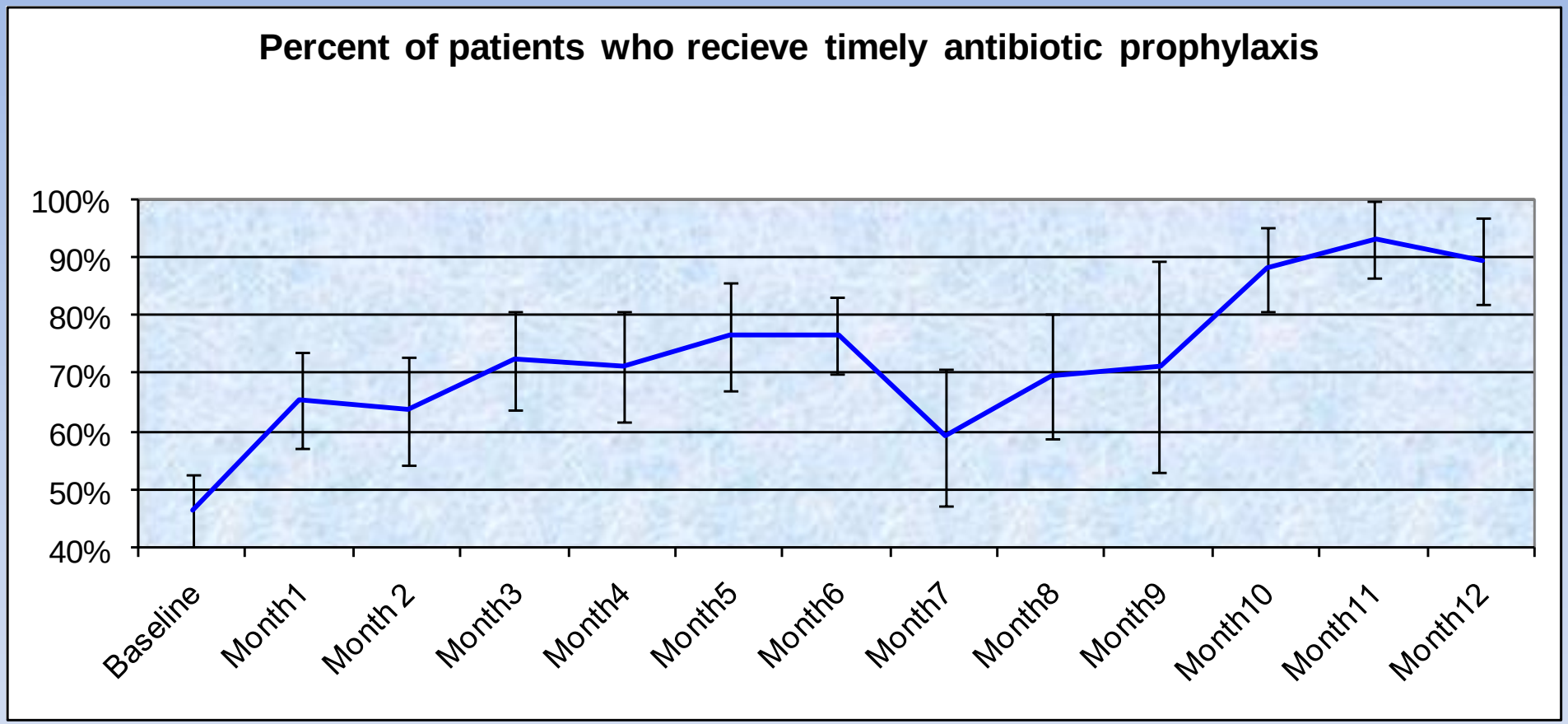
Example
Surgical Site Infections

- Surgical complications, including surgical site infections, were the most frequent type of adverse event reported in the 2004 Canadian Adverse Event Study
- A 2005 study of 193,000 surgical cases in Quebec found post surgical infections in 3380 cases or 1.8%
- There is strong evidence supporting the use of timely antibiotic prophylaxis to reduce infections, but recent reviews suggest that many hospitals fail to achieve this goal
  - Review of 34,000 US cases found that antibiotics were given within one hour of incision in only 55.7% of cases
  - Prophylactic antibiotics were discontinued 24 hours after end of surgery in only 40.7% of cases

Surgical Site Infections

- Four specific activities
  - Don’t shave the skin but clip the hair
  - Make sure prophylactic antibiotics are given (and stopped) on time
  - Carefully monitor and control the blood sugar during the operation
  - Carefully monitor and control the body temperature during surgery


Appropriate hair removal
105%
100%
95%
90%
85%
80%
75%
70%
65%
60%
Baseline
Month 1
Month 2
Month 3
Month 4
Month 5
Month 6
Month 7
Month 8
Month 9
Month 10
Month 11
Month 12
Month 13


Percent of patients who recieve timely antibiotic prophylaxis
100%
90%
80%
70%
60%
50%
40%
Baseline
Month1
Month 2
Month3
Month4
Month5
Month6
Month7
Month8
Month9
Month10
Month11
Month12

Why Participate in SHN?

"To not participate is not an option, It is not about spending additional health care dollars, rather it is about our obligation to provide a safe clinical experience for the patients who walk through our doors and put their trust in us." *David Rowe, Senior Vice-President, Credit Valley Hospital, Ontario.*

"The SHN has provided us with leadership and coordination of the interventions. As well, there has been excellent information sharing and collaboration with those participating in the interventions within and across the nodes." *Kim Cook, Vice-President of Patient Services & Chief Nursing Officer, Headwaters Health Care Centre, Alberta.*

Moving on – New initiatives

- Preventing Falls in LTC
- Prevent Harm from AROs
- Prevent VTE through Thromboprophylaxis
- High Risk Medications in Paediatrics
- Med Rec in Home Care

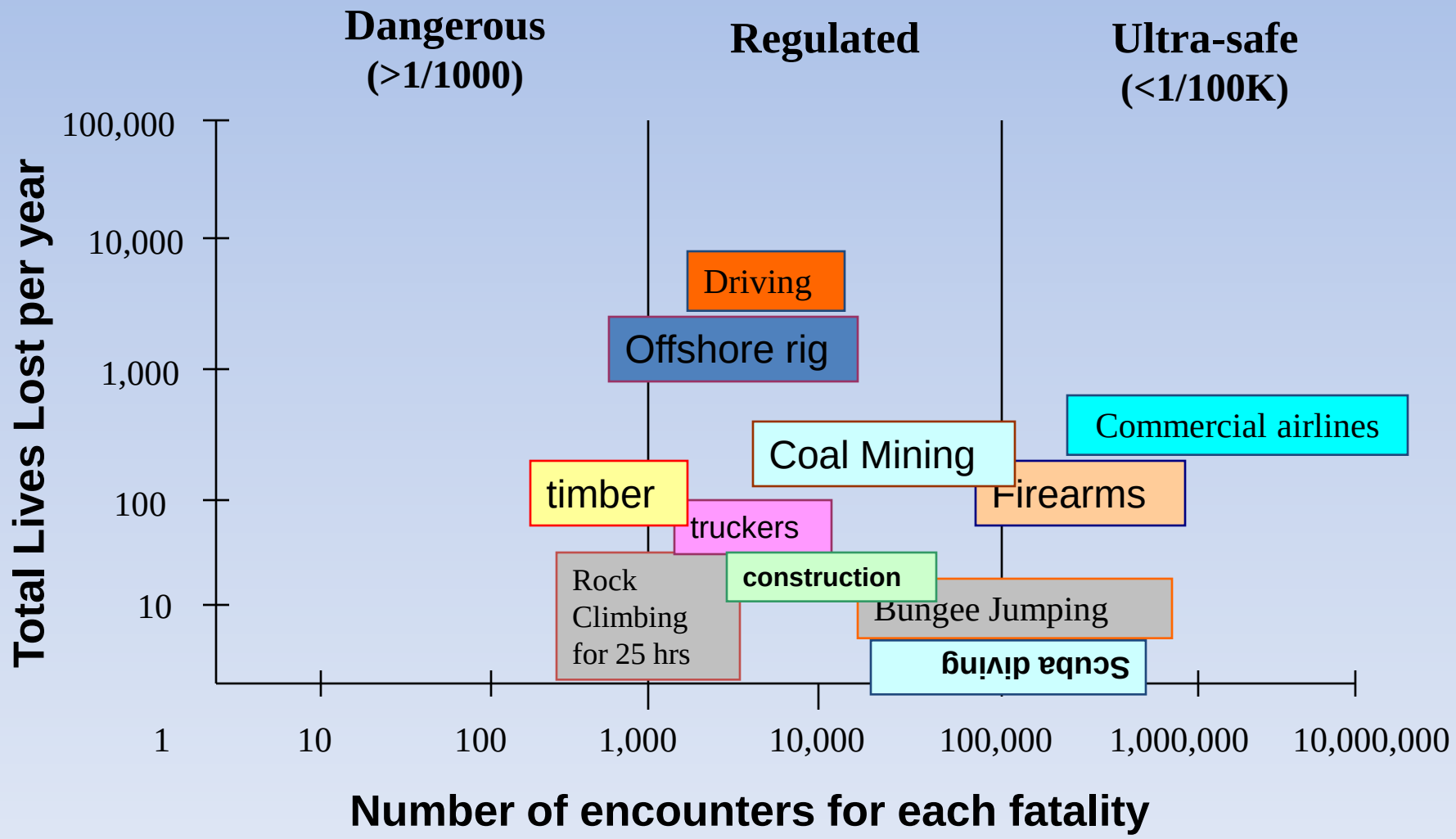
Should we be discouraged?

- Not really – every journey has a beginning
- “The journey of a thousand miles begins with one step” Lao Tzu (?500-300BC)
- “The longest part of the journey is said to be the passing of the gate” Marcus Terentius Varro (116 BC – 27 BC)

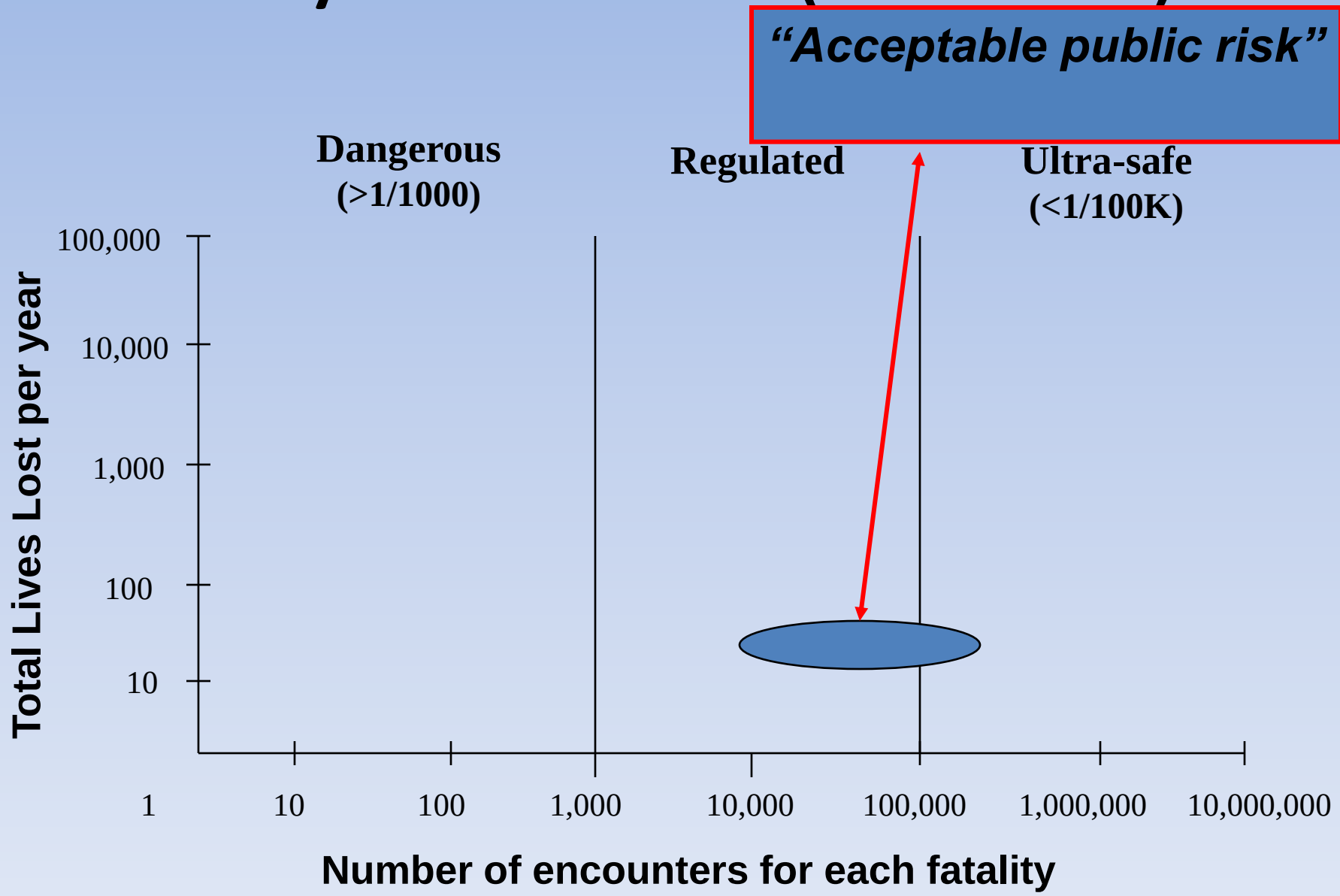
Hospitalization

- Comparison with other un-health related activities unfair
- In part the risks of hospitalisation are due to the terrible illnesses that afflict persons and the terrible things we have to do to them to try to save them
- Relevant comparison should be persons with various conditions who *don't* come to hospital
- The risk of death from hospitalisation is small when compared with the (close to certain) risk of death with untreated bacterial meningitis or a ruptured viscus…

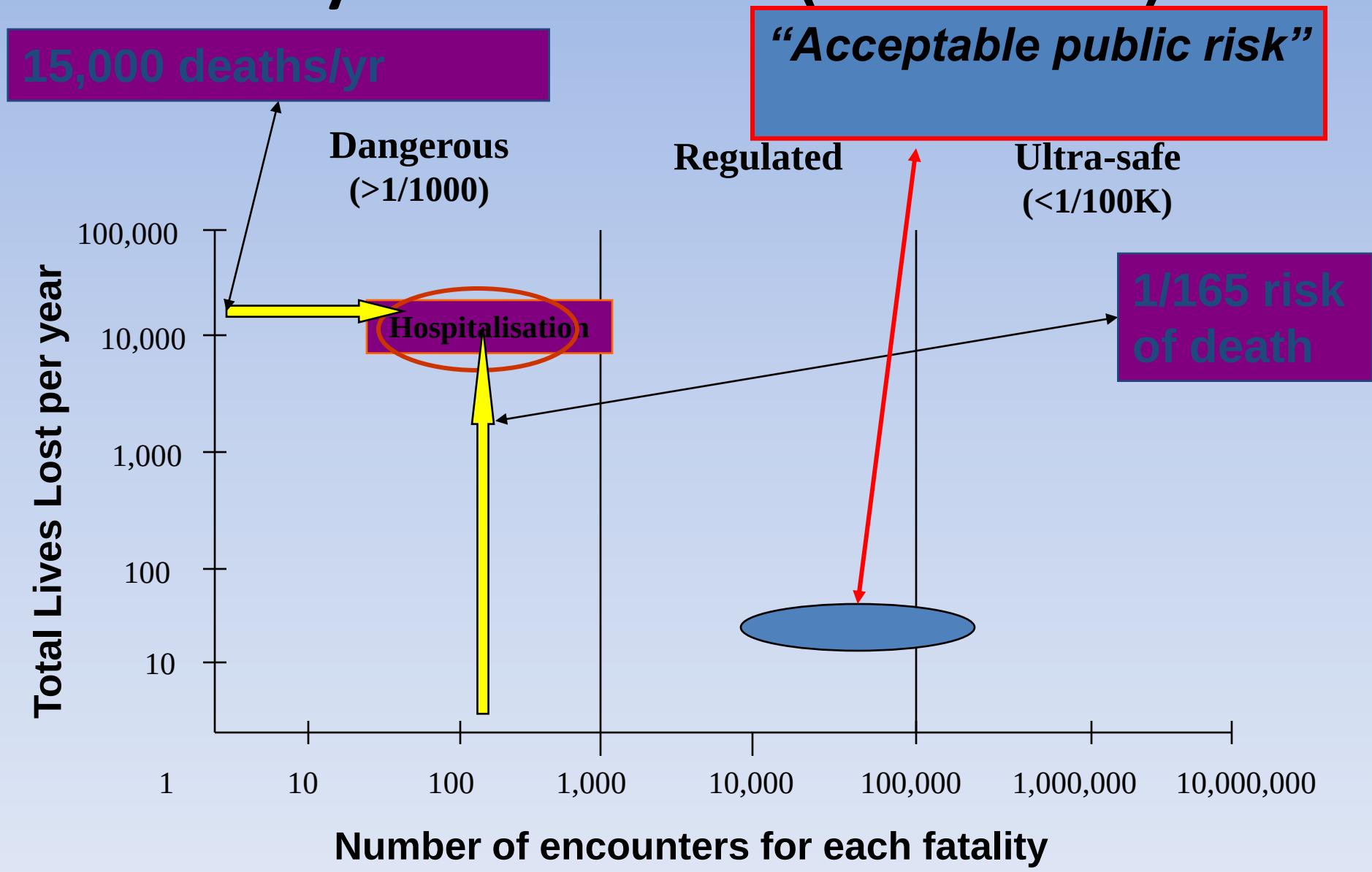
Risky activities (Canada)



Risky activities (Canada)



Risky activities (Canada)



Every day you may make progress. Every step may be fruitful. Yet there will stretch out before you an ever-lengthening, ever-ascending, ever-improving path. You know you will never get to the end of the journey. But this, so far from discouraging, only adds to the joy and glory of the climb.

Sir Winston Churchill