

# **The UK NHS National Reporting and Learning System: the state of play overseas**

Richard Thomson  
Director of Epidemiology and Research  
National Patient Safety Agency, UK  
26th July 2007

**We need to share the learning from our mistakes to try and stop them happening again .....**



# National Reporting & Learning System

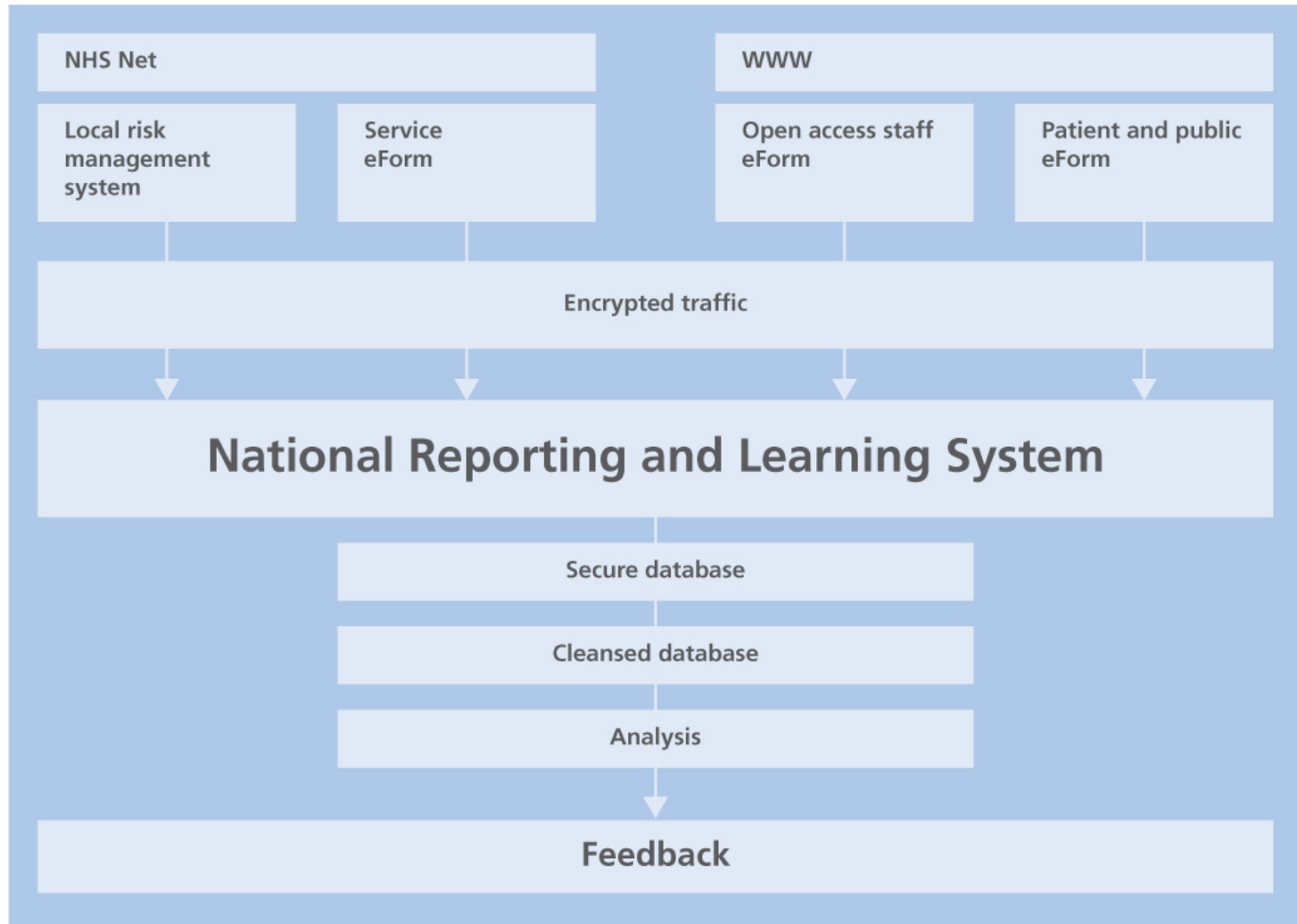
## Statutory function of NPSA

- implement a national reporting system for patient safety incidents
  - “any unintended or unexpected incident that *could have* or did lead to harm for one or more patients receiving NHS-funded healthcare”
- collect and appraise information to promote patient safety

## Key points

- all specialties and care settings (initially 607 health care organisations in England and Wales)
- all levels of severity including “no harm” – actual harm
- capacity to analyse very large dataset (data mining)
- for national and local learning, including feedback

Figure 1: The National Reporting and Learning System



**1,691,158**

Total number of incidents reported to the NRLS since November 2003

**21,985**

The number of incidents which are likely to be categorised by reporters as severe or death (based on 1.3%)

**12,360**

Highest number of reports from one Acute Trust (Oct 06-March 07)

**1,773**

Average number of reports from Acute Trusts (Oct 06-March 2007)

**430**

Number of Trusts connected to the NRLS (100%)

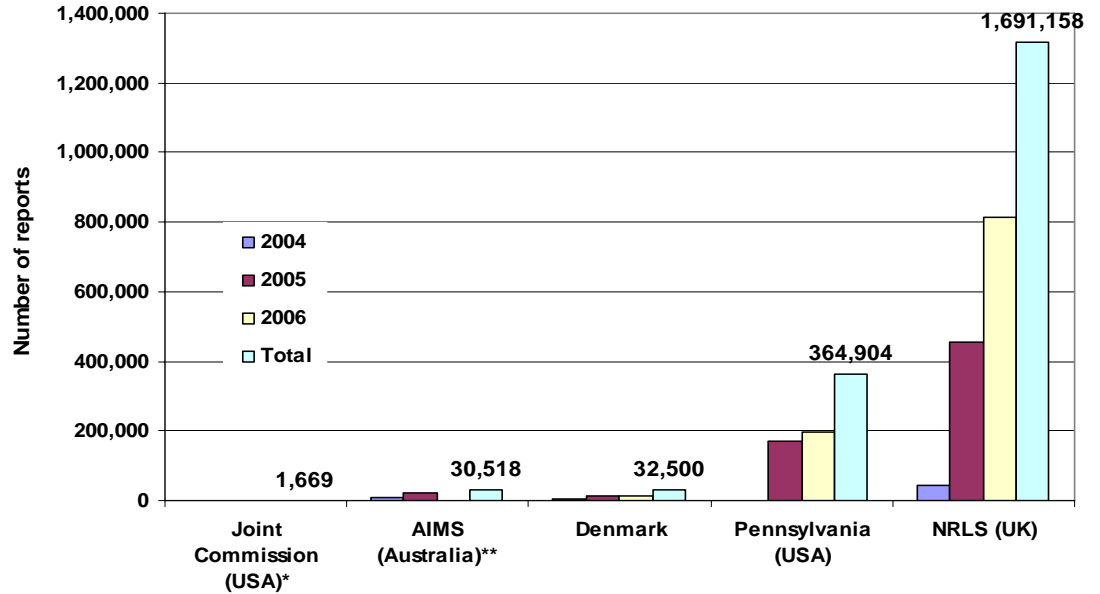
**274**

Average number of reports from PCOs (Oct 06-March 2007)

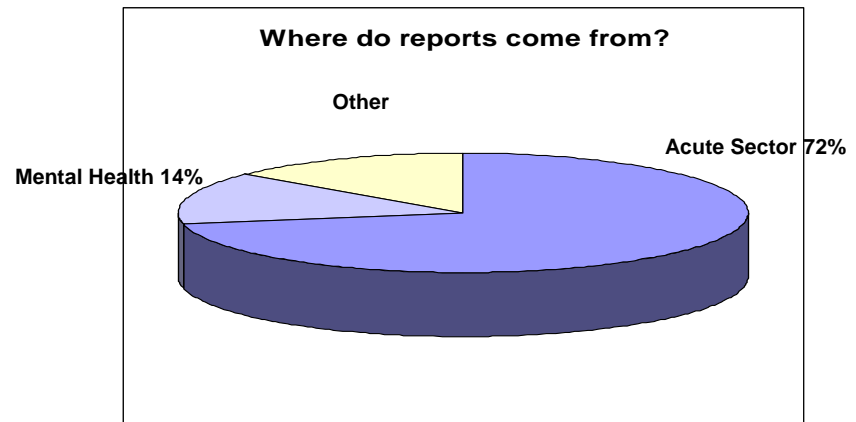
**104**

The average number of days for a serious incident to be reported through to the NRLS

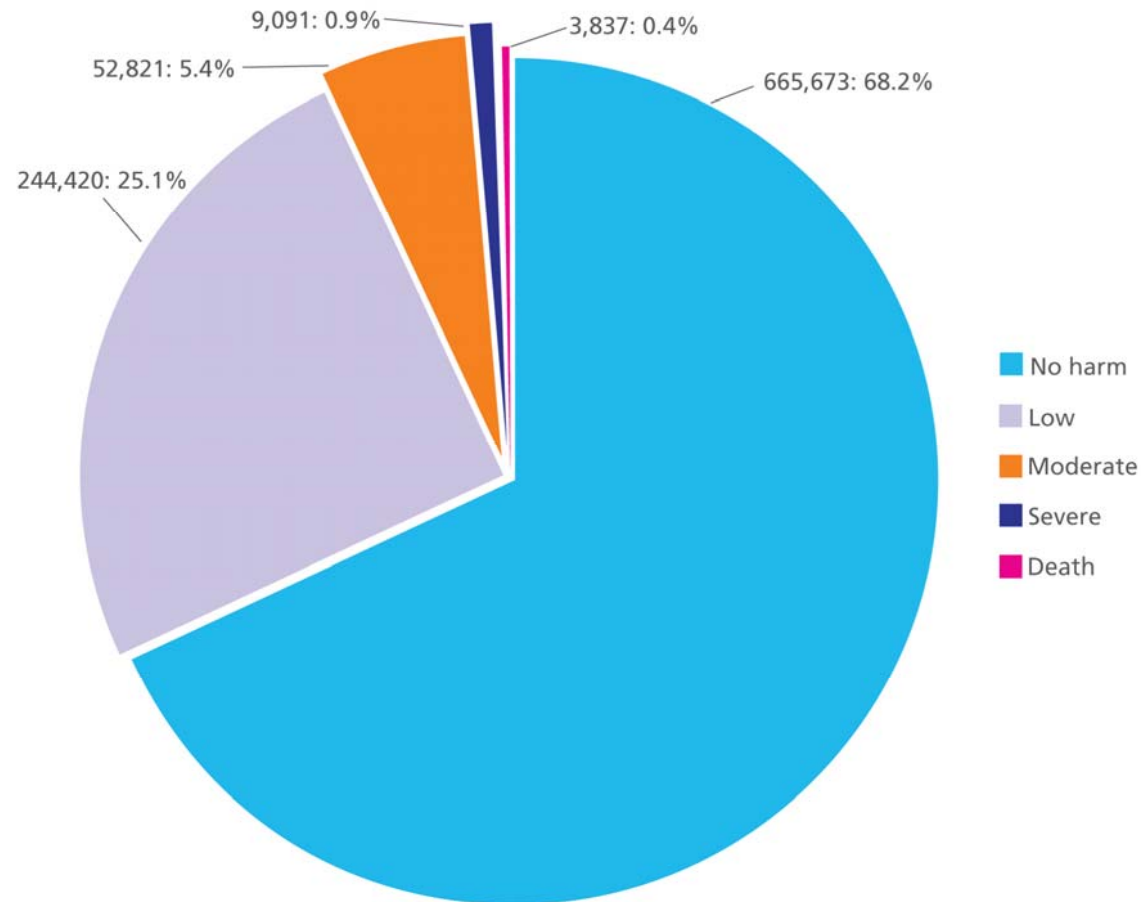
# Reporting in Numbers



Number of Reports in Reporting Systems Internationally



# Degree of harm to patients (up to the end of September 2006)



**‘It is of the highest importance in the art of detection to be able to recognise out of a number of facts, which are incidental and which are vital’**

**Arthur Conan Doyle (1859 - 1930)**

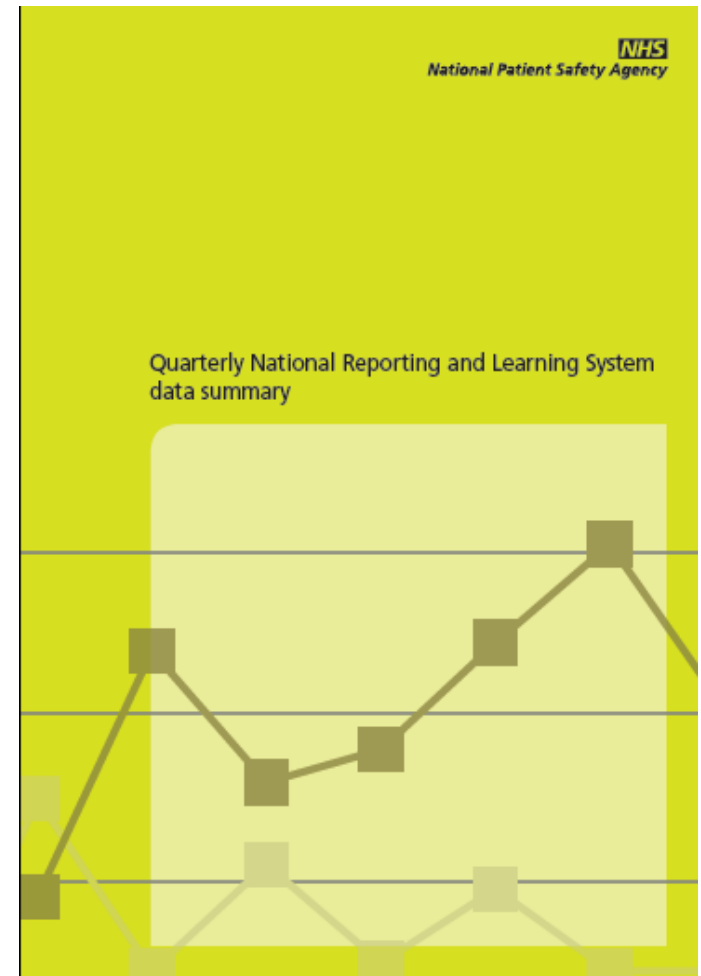


## Approaches to analysis of NRLS data

- Routine monitoring reports
- Ad hoc analysis
- Thematic analyses
- Exploratory
  - Reviews of selected incidents
  - Data mining

# Routine reports

- Regular quarterly analysis which will form basis for
  - Management Team report
  - Quarterly PSO report on web
  - Slide set
  - Tie into trust reporting cycle



# Trust feedback reports

- > 400 individual reports
- 9 variations tailored to trust clusters
- Planned for quarterly production
- Evolving over time
- Medication specific reports in development

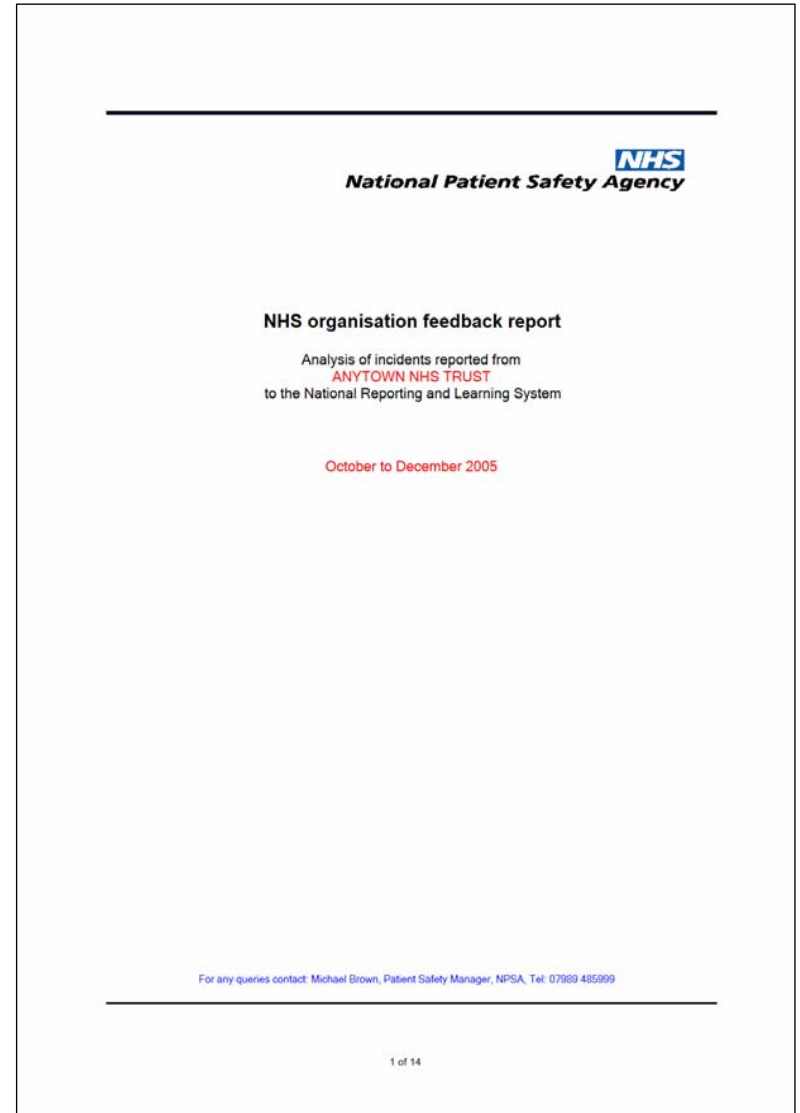


Figure 2: Rate of incident reports per hundred admissions

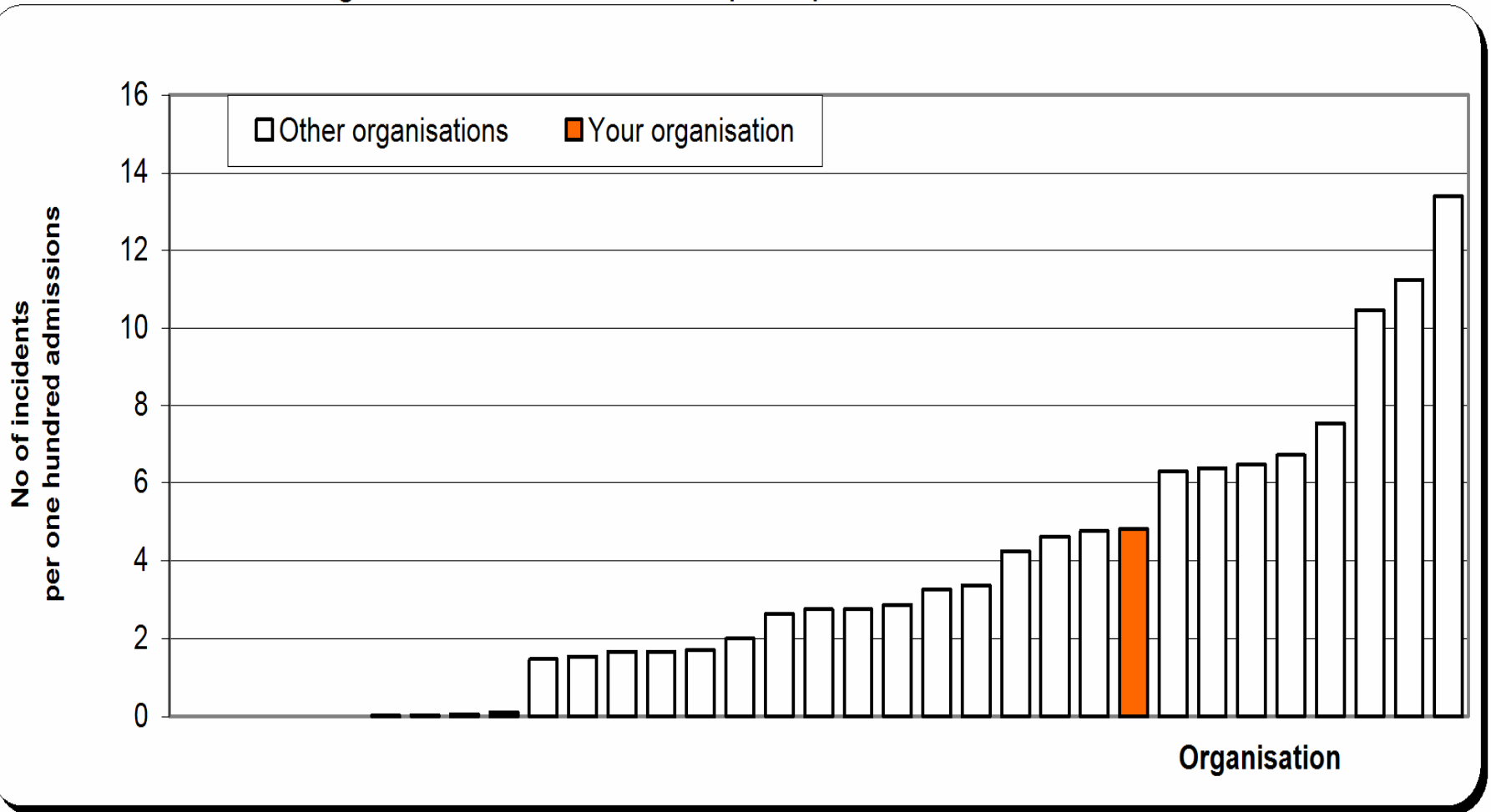
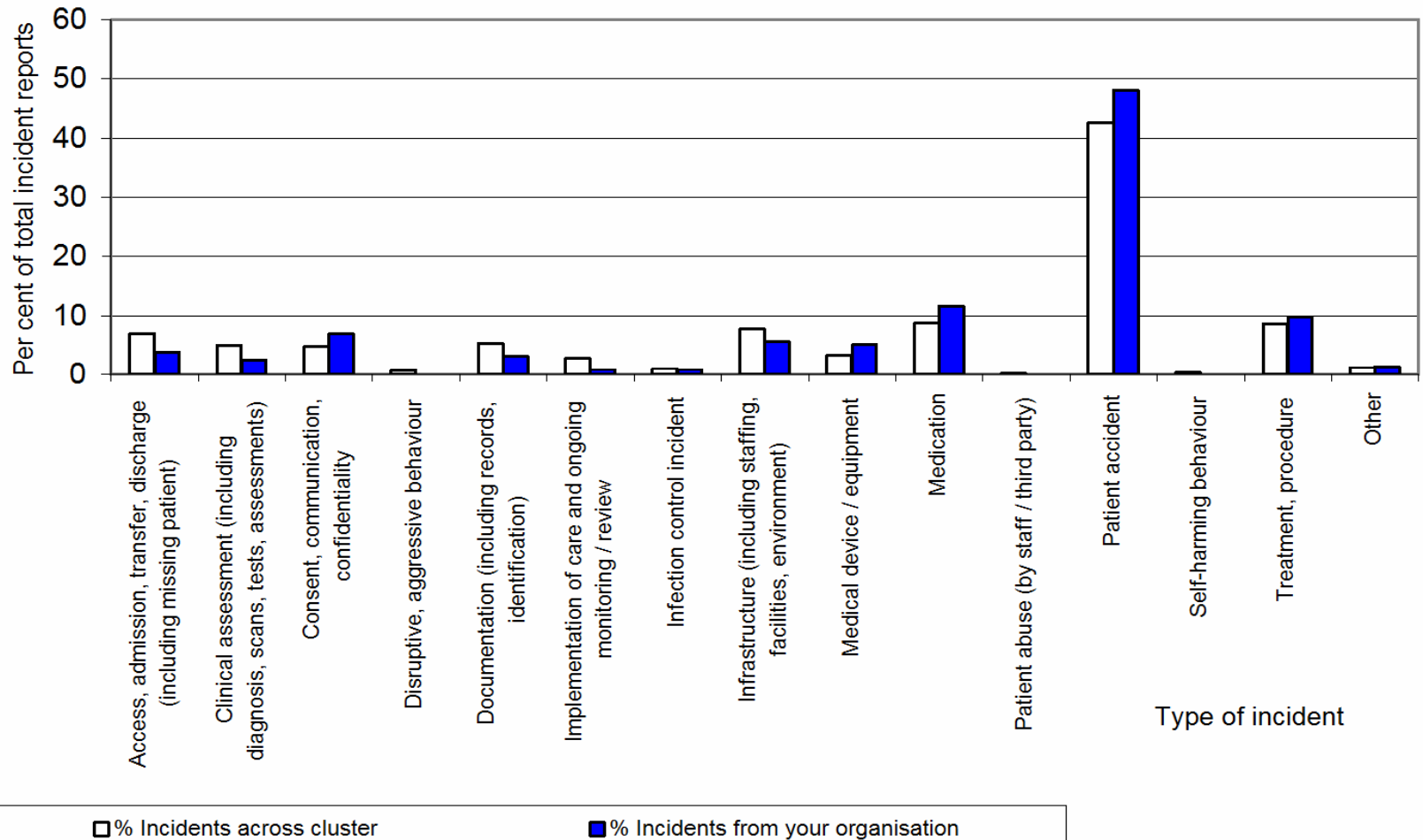


Figure 3: Incident type for cluster



# Ad hoc analysis

- Wide range of requests
- More than half external, mostly from NHS, but also Parliamentary Questions, Freedom of Information requests
- Internal requests relating to current projects and prioritisation process
- Use of Autonomy for free text searches

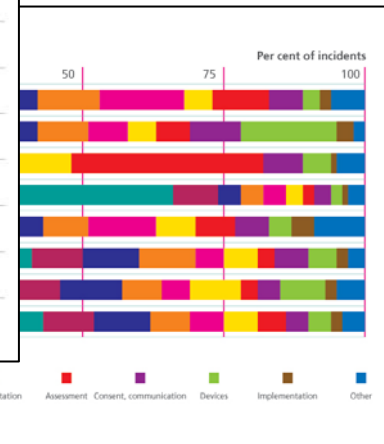
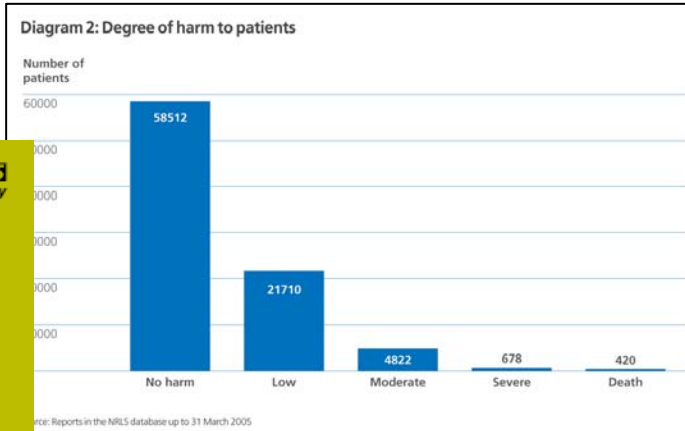
# NRLS: examples of analysis

- patient ID problems in lab tests – lab results or samples being mis-identified
- non-medical devices/IT equipment – errors or failure of computing and other non-medical equipment leading to incidents
- missed/delayed diagnosis – incidents relating to this, particular in emergency care
- infusion pumps – inappropriately attaching an infusion pump line to an intravenous line
- pre-filled syringes – supply problems of emergency pre-filled syringes
- oxygen cylinders – people smoking near use of oxygen, cylinders falling on people
- bleeps not working, leading to failure to respond to urgent calls
- Fire and burn risk from skin preparations and diathermy
- Swabs missing from surgery

Building a memory: preventing harm, reducing risks and improving patient safety

The first report of the National Reporting and Learning System and the Patient Safety Observatory

July 2005



NHS  
National Patient Safety Agency

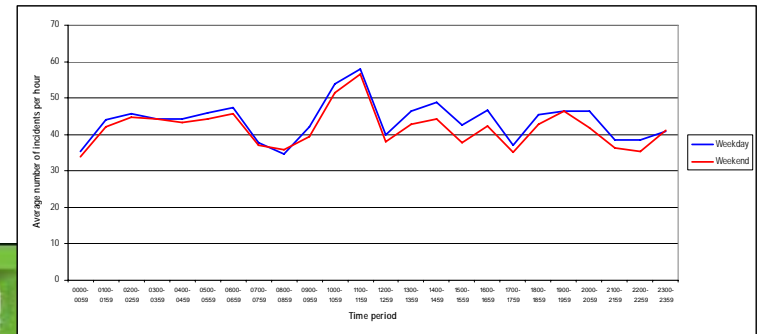
**With safety in mind:  
mental health services and patient safety**  
Patient Safety Observatory Report 2 | May 2006

NHS  
National Patient Safety Agency

The third report from the Patient Safety Observatory  
**Slips, trips and falls in hospital**

NHS  
National Patient Safety Agency

The fourth report from the Patient Safety Observatory  
**Safety in doses: medication safety incidents in the NHS**



# Systematic review of incidents

- Richness of NRLS data in free text descriptions
- Review from clinical perspective adds value
- Huge volumes of data – sampling
  - Multiple (overlapping) cuts e.g. by specialty (maternity), setting (primary care), severity (deaths), incident type (wrong site surgery, crash call), source (open access eForm),
- Robust and consistent review of data supported by guidance and tools
- Involving risk management and clinical expertise



National Patient Safety Agency

### National colour coding scheme for hospital cleaning materials and equipment

NHS organisations should adopt the following colour code for cleaning materials. All cleaning consumables, for example cloths, trolleys and drolleys, mops, buckets, sprays and brushes, should be colour coded. This also includes those consumables used to clean colouring equipment.

<b>Red</b>	<b>Blue</b>
Bathrooms, washrooms, showers, toilets, basins and bathroom floors	General areas including wards, departments, offices and basins in public areas
<b>Green</b>	<b>Yellow</b>
Catering departments, ward kitchen areas and patient food service at ward level	Isolation areas

For local context for hospital design go to [www.npsa.nhs.uk](http://www.npsa.nhs.uk)

National Patient Safety Agency

### Oral Anticoagulant Therapy

Important information for patients



National Patient Safety Agency

### Safety in doses: medication safety incidents in the NHS

The fourth report from the Patient Safety Observatory

PSO14

National Patient Safety Agency

### Blood safety and you

A co-ordinated response

National Patient Safety Agency

### Only use oral & enteral syringes

to measure and administer oral and enteral liquid medicines

- An appropriate enteral syringe available to measure and administer liquid medicines to patients who are unable to swallow.
- Choose an oral/enteral syringe that will not allow medication to be aspirated or poured.
- Ensure the device is used in a way that does not allow medication to be aspirated or poured.
- Use a syringe that is designed to measure and administer liquid medicines to patients who are unable to swallow.
- Ensure the syringe is used in a way that does not allow medication to be aspirated or poured.

go to [www.npsa.nhs.uk](http://www.npsa.nhs.uk)

National Patient Safety Agency

### Standardising wristbands improves patient safety

03 July 2007 No. 24

For action by Chief Executives

**Standardising wristbands improves patient safety**

Wristbands are used to identify hospital inpatients. Over the 12 month period February 2006 to January 2007, the NPSA received 24,392 reports of patients being misidentified for their care.

By standardising more than 1200 of these related to wristbands, the information on them, and the processes used to generate and check them, will improve patient safety.

Key messages for patients and staff:

- All patients should have a wristband.
- Wristbands should be checked at every point of care.
- Wristbands should be checked at every point of care.
- Wristbands should be checked at every point of care.

National Patient Safety Agency

### Earlier practice notice

Early identification of failure to act on radiological imaging reports

16

**Earlier practice notice**

18

**Anticoagulant**

21

**Alert**

18 March 2007

**Safer practice with epidural injections and infusions**

Alert

18 March 2007

Alert

18 March 2007

National Patient Safety Agency

### Feeding back on reports

Early therapy

3

**Slips, trips and falls in hospital**

Safety First

Slips, trips and falls in hospital

Slips, trips and falls in hospital

## Learning from incident reporting: ....what's the up to date picture?

Mental health inpatient suicides

- National programme to remove high ligature points

NRLS indicates

- low ligature points/suffocation instead
- High ligature points in gardens/grounds utilised
- Collapsible curtain rails getting stuck on batons



# Learning from incident reporting: ...but isn't it terribly rare?

- Mental health services
- Data to end September 2005, along with other data sources (eg litigation)
- Well-known issues in mental health services and also highlighted sexual safety
- Published July 2006

## £30m to curb sex attacks on wards for mentally ill

**NHS**  
National Patient Safety Agency

**men  
or  
ed  
pital**

ment, services have improved considerably in recent years. However, we must now redouble our efforts to further improve the quality of services and ensure that patients receive the best care possible.

Mental health charities welcomed the move. Moira Fraser, head of policy at the Mental Health Foundation, said: "For too long, people with mental health problems within services have been at risk from abuse and it is heartening that this issue is now being taken seriously."

"We hope that the measures announced by the Department of Health herald the start of a process to eradicate abuse."

"The attitudes of managers and frontline staff need to be changed, patients must feel safe to report any incidents of harassment, rape or sexual assault, and any such incidents must always be taken seriously by staff and acted upon instead of being dismissed."

Paul Farmer, chief executive of the charity Mind, said: "Mind has been highlighting the problem of unsafe wards for a long time. We are glad that moves are now being made towards better inpatient safety. We look forward to working with the department on its guidance on improving sexual safety."

"Patients have to believe that it is worth making a complaint and that they will be taken seriously. Too often this isn't the case, and patients feel ignored or intimidated."

"This can only be addressed by creating a comprehensive and accessible reporting system, accompanied by a culture of respect for all patients and intolerance of harassment and abuse."

"The eradication of mixed-sex wards must be an absolute priority. This is long overdue and would go some way to reducing fear and intimidation among patients."

With safety in mind:  
mental health services and patient safety  
Patient Safety Observatory Report 2 | May 2006

reported the sex attacks

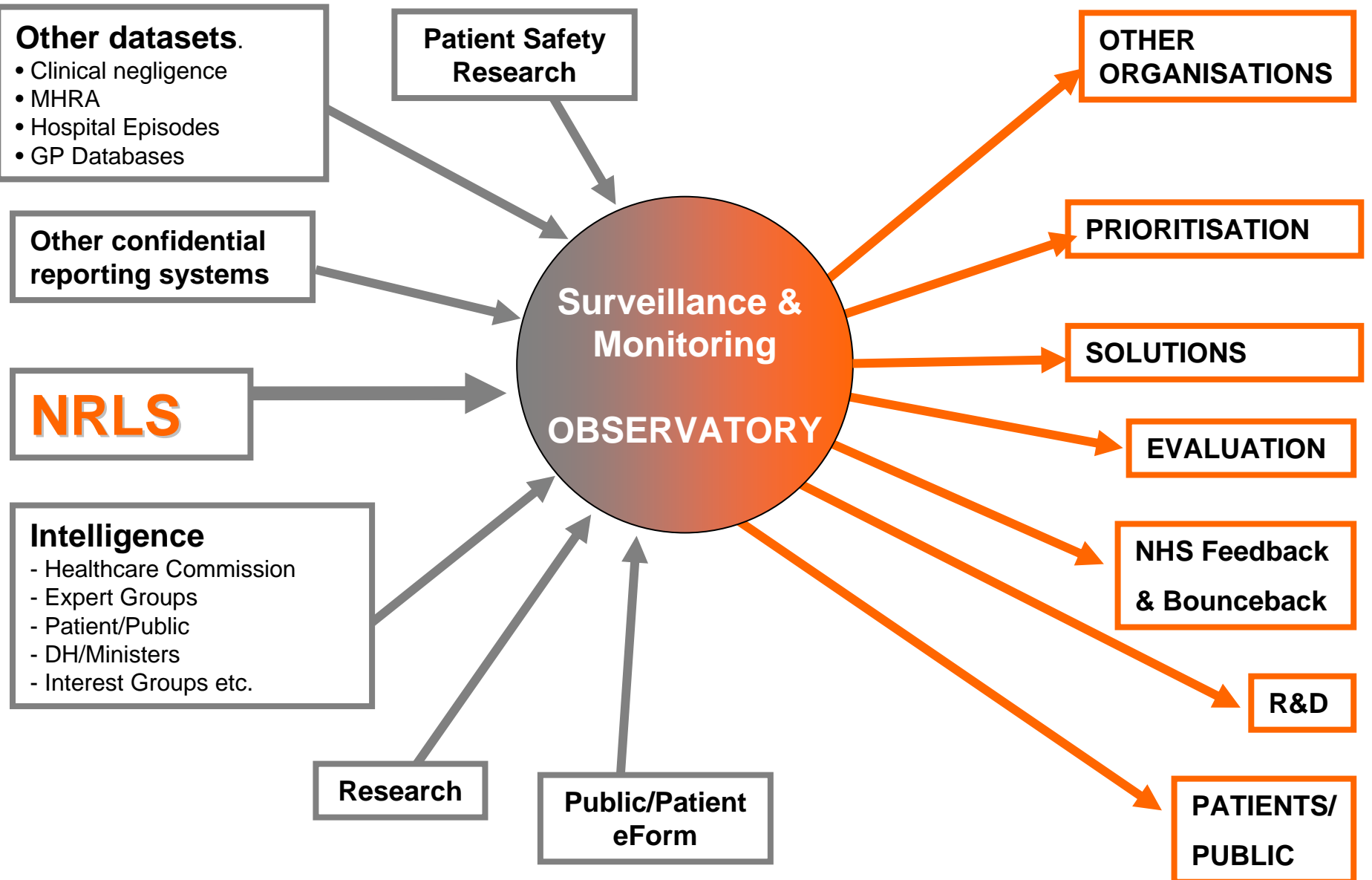
mental health incidents are in place. Our aim to de- the allege- did receive cases and, in is significant ty as to whe- occurred. everal allega- e when the state was se- and the de- sions reflected s' significant 19 cases and

idents ys be ously upon'

in the rest to nt. Despite what vered about believe that the sexual safety ut and I am ee that this

proposing to ries of meas- re patients, safety and incidents are

I have now collected infor- Thanks to substantial invest-

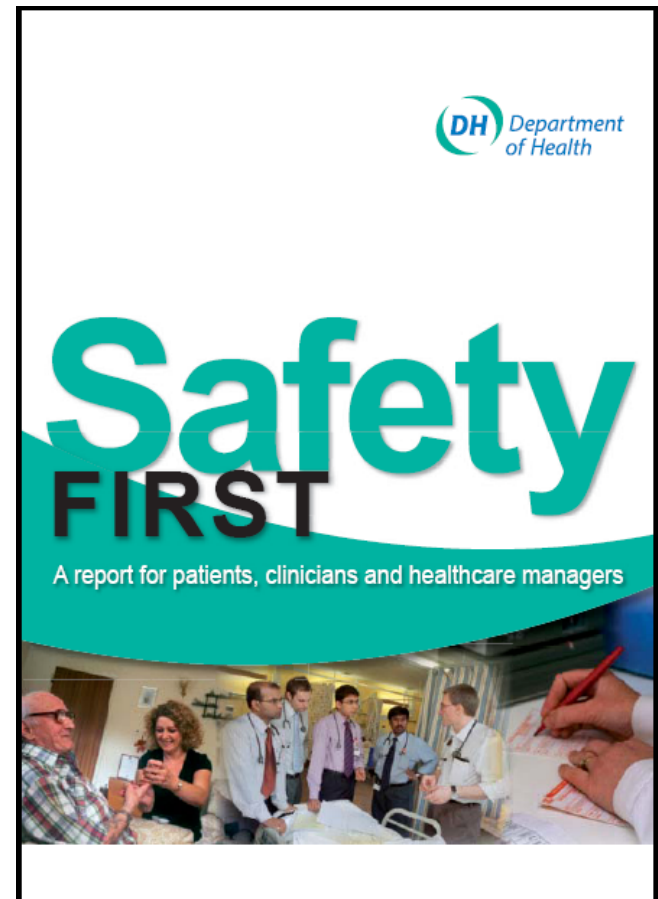


# ***Safety First***

# Safety First

Safety First highlights key areas for improvement in current safety reporting systems in the NHS. These include:

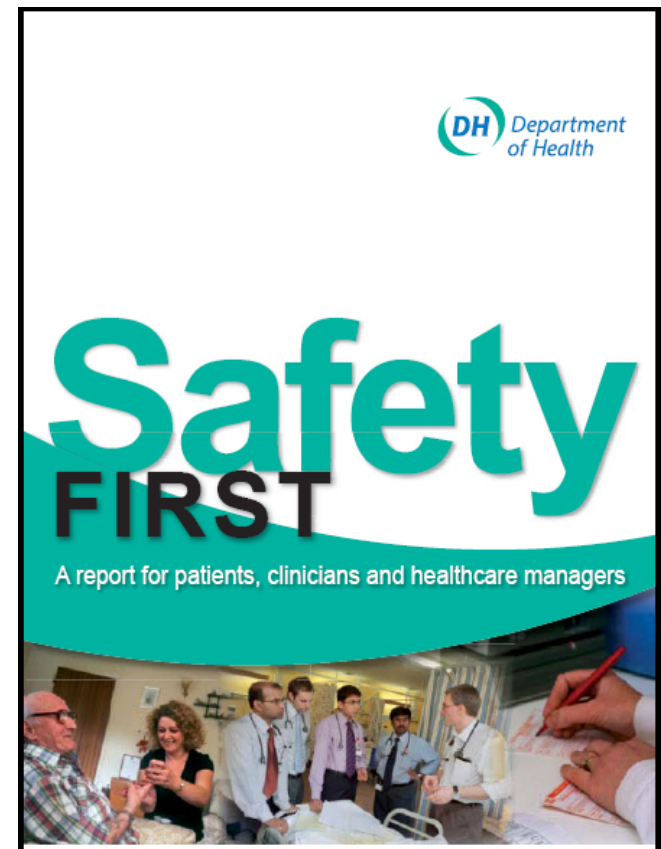
- Simplifying and encouraging reporting of safety incidents
- More rapid reporting and notification of serious incidents to the NPSA within 36 hours leading to more rapid learning
- Capturing risky situations
- Using patient safety data to inform learning and action locally – analysis, learning and feedback.



# The need for change

National analysis not enabling local learning and action:

- Hard to report locally
- Uneven profile of staff reporting
- Huge volume of reports
- National response too slow
- Inadequate feedback to NHS



## Present imperfect

- >99% of our data from local risk management systems – problems in data quality
- .... and delay



## ***Rapid reporting***

- Range of options to report – further pilot
  - Short e-form, phone, email.
  - Initial limited data set
  - Guidance on what to report
- Incident management process
  - Response team
  - Rapid review and prioritisation: size, impact, potential to effect change and add national value
  - Response to reporter: acknowledge, seek further info, feedback on resources
  - Graded scoping: NRLS and other data search, rapid lit review/Google search, clinical/domain expertise
  - Iterative review
  - Ongoing liaison with reporter: e.g. RCA findings

# **NRLS** Direct



## ***RE*ponse and *AC*tionable *L*earning making safety **REAL** at the front line**



- Rapid reporting
  - deaths and severe
  - scanning of other regular reviews
- Weekly review of incidents after alerts
- Testing risk prone situation gathering
- Scanning SUIs and other
- Direct from DH
- International alerts/horizon scanning
- Other data sources – litigation, coroners, patient complaints, research
- Systematic analysis

## Specialty engagement

- Aim – enhanced engagement in reporting, analysis, response and dissemination
- Risk prone situations – learning about *real* concerns from *real* clinicians
- NPSA working in new ways with clinicians - anaesthesia, neonatal, radiology, intra-partum care



# The answer

Learning

**Local Learning  
investigations  
and risk  
assessments**

---

**Deaths and serious injuries**

**Themed reports**

**Incidents related to past alerts**

**Specialty based reporting**

**Anything else Trusts want to tell us**

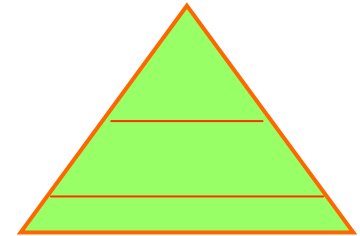
---

**Quality assured categorical data**

**Data mining and regular trend reporting**

Reporting

## Next Steps



- **Standardise and simplify the dataset:**
  - Define a core minimum dataset
  - Work with Trusts to define standards to improve and assure data quality locally
- **Define and set the requirements for incident reporting in the following high priority areas:**
  - Deaths and serious injury
  - Themed categories (prioritised annually)
  - Speciality-based learning and analysis by collaboration with clinical networks and Royal Colleges (anaesthesia pilot)
  - Monitoring national patient safety initiatives (e.g. correct site surgery)
- **Develop processes to respond in a timely and appropriate fashion to provide targeted response and learning for the service – “response/call centre”**
- **Developing a national facility to capture local incident investigations**
  - National learning and sharing
  - Effective feedback mechanisms

**Thank you**

**Any  
Questions?**

