

Airwave Health Monitoring Study

Tetra Industry Group Seminar

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London Transport Museum, Covent Garden, London

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<http://www.police-health.org.uk/>

Introduction

1. Background
2. Study design
3. Governance, consent & data security
4. Progress with enrolment
5. How to enrol
6. Priorities for the future
7. Questions

AGNIR Report (2001)

“... overall, the current results from epidemiological studies give no cause for concern in relation to TETRA. However, there are limits to the reassurance that they provide. In particular, they do not exclude the possibility that RF radiation from cellular phones might carry a risk of cancer that becomes manifest many years after first exposure or that relates to intense exposure over many years. Nor do they rule out a hazard from RF radiation modulated specifically at around 16 Hz.”

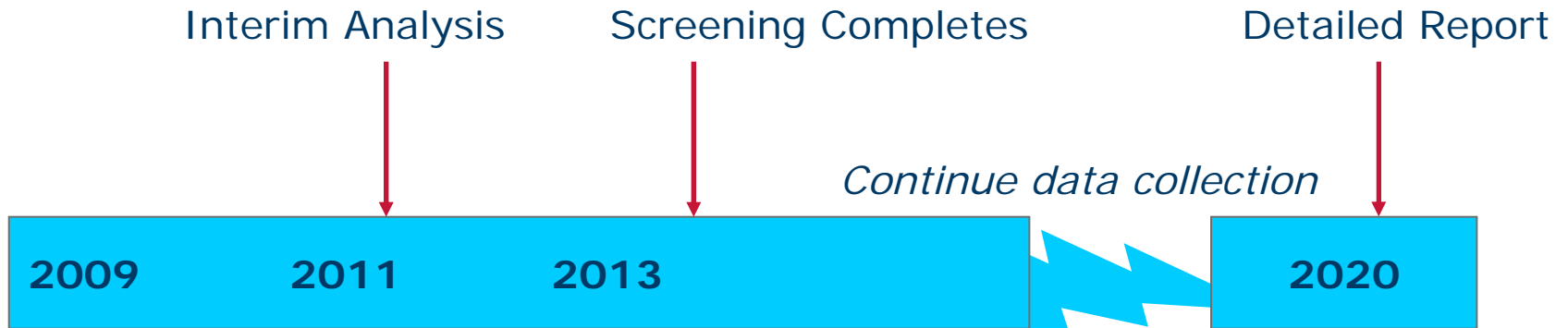
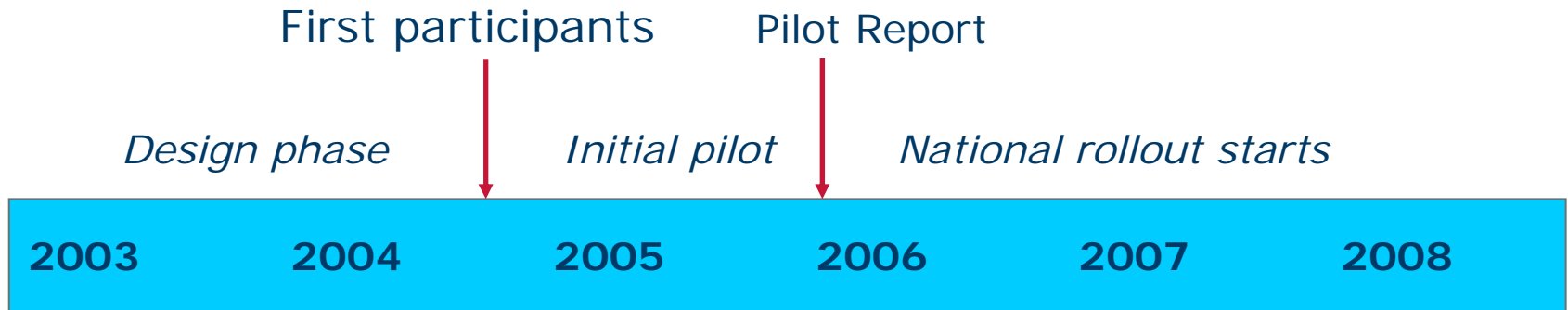
Para. 128, “Possible Health Effects from Terrestrial Trunked Radio (TETRA)”,
(Volume 12 No 2 2001)

http://www.hpa.org.uk/web/HPAwebFile/HPAweb_C/1194947336937

Prospective Cohort Study

- 1. Identify and recruit** participants, to find out
 - lifestyle and current state of health;
 - current use of *Airwave*; *and*
 - blood samples (to assess possible genetic changes).
- 2. Assess exposure** of each participant to TETRA over time via questionnaires and call-records
- 3. Record events** occurring to participants
 - cancers and other sickness;
 - absence from police duty; *and*
 - all-cause mortality
- 4. Determine relationship**, if any, between occurrence of adverse health events and exposure to TETRA

Timetable



Eligible Participants

- All UK Mainland police forces
- Certain non-police agencies that can:
 - » support rollout of questionnaire (at least)
 - » provide Airwave usage and absence data
- All officers and any staff who use Airwave (or may use it in future).

Information Gathering

At enrolment

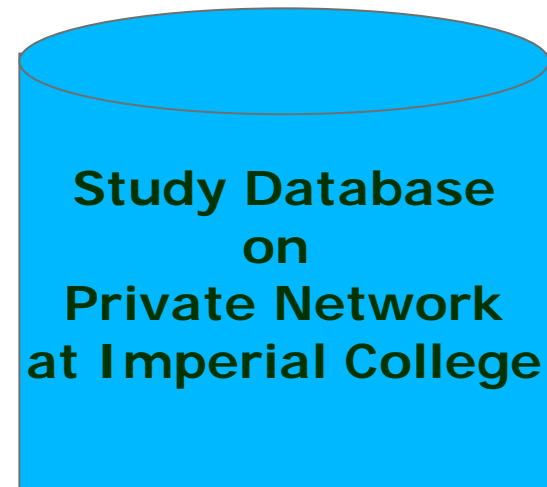
questionnaire; and / or,
health-screen

Participants' Airwave usage from

Airwave usage records; and,
questionnaire responses.

Health information from

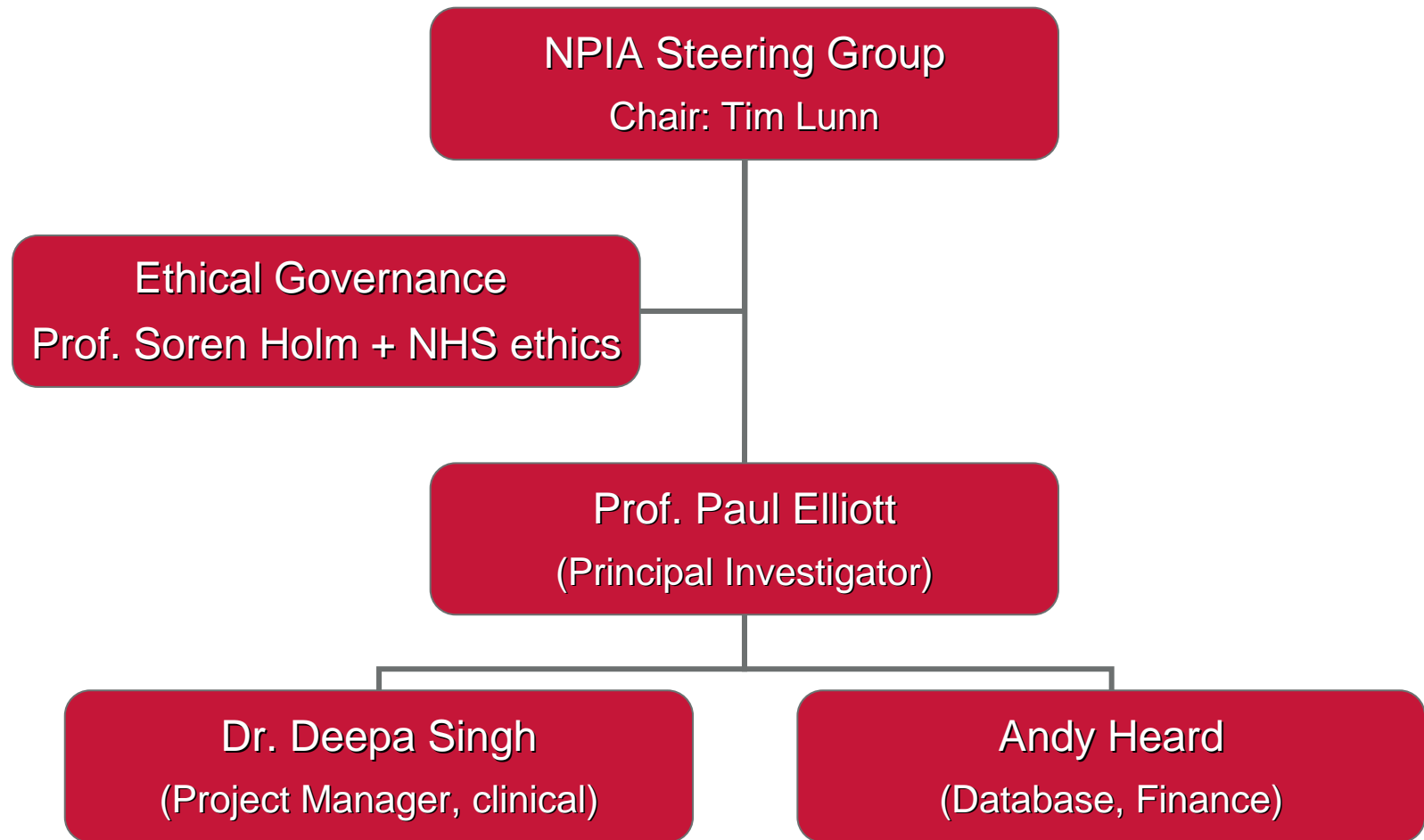
health screen results;
questionnaire responses;
NHS medical records; and,
force absence records



Questionnaire Content

- General health & lifestyle
- Symptoms experienced when using Airwave
- Where radio mounted on body (personal, pooled, vehicle, body mounted/covert)
- Estimate usage by call type (PTT, direct, mobile phone, analogue radio)
- Consent

Management & Governance



Consent and Confidentiality

Ethics

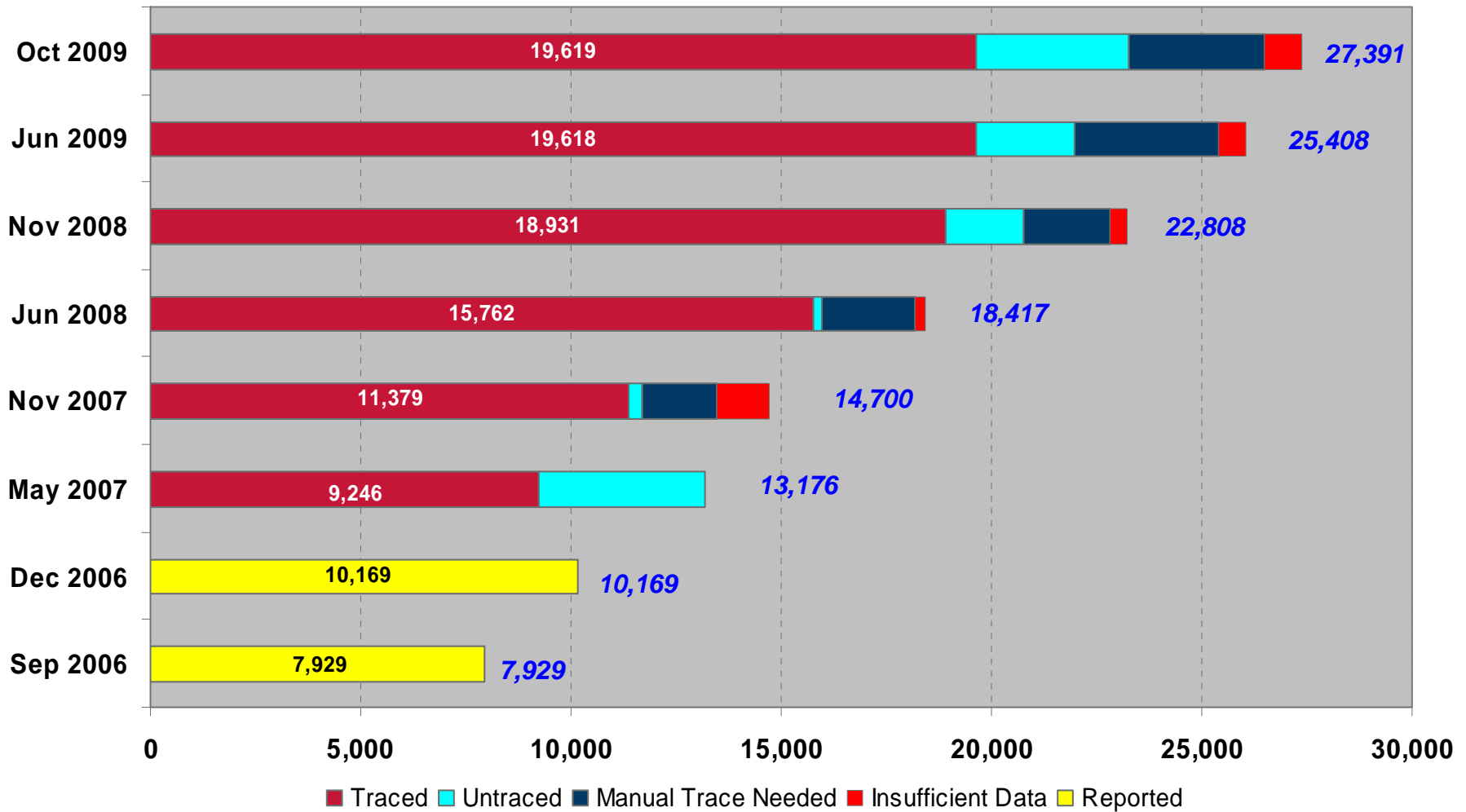
- NHS ethics committee approval
- Written consent from each participant

Security

- No individual will be identified outside of team without consent
- Barcode labelling system to protect participant identities
- Data stored on secure isolated server at Imperial College
- Staff with access to personal data undergo security clearance

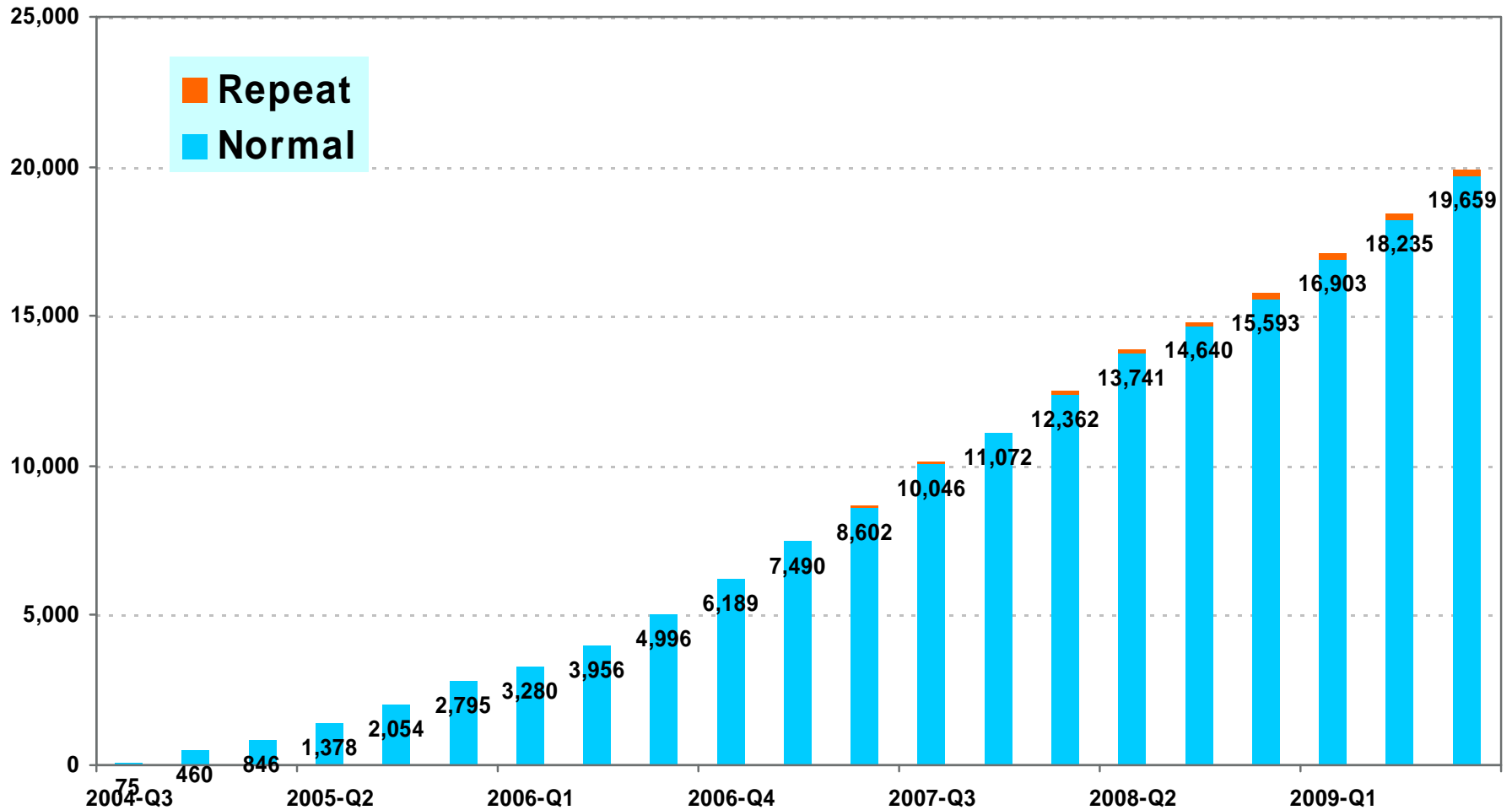
Enrolment

(October 2009)



Total Screens at Date

(Q3, 2009)



Composition of Cohort

(Oct 2009)

- 9 forces completed rollout
- 6 forces where screening ongoing
- 14 other forces also participating
- 6 forces in preparation
- Enrolling c.50% of force (officers + staff)
- 72% of recruited cohort are screened
- *Use of Airwave (Nov. 2008)*
 - » 7% "higher"
 - » 44% "standard"
 - » 49% "lower"

| | |
|---------------|-----|
| Wales | 33% |
| Eastern | 19% |
| North West | 16% |
| Midlands West | 14% |
| Midlands East | 7% |
| Scotland | 7% |
| Other | 4% |

Rollout Planning

Currently Working In

- Lothian & Borders
- Strathclyde
- North Wales
- Merseyside
- Suffolk
- Norfolk

Planning For

- Tayside
- Devon & Cornwall
- Lincolnshire
- Hampshire
- Grampian
- Hertfordshire

How to Enrol

- Participants join through their force
- Force distributes questionnaire to eligible participants
- Establish baseline cohort (c. 15 - 20%)
- Begin health-screening, which runs for c. 12-months
- Establish final cohort (c. 50%)
- Collect absence and employment changes till end of Study

Priorities for Future

Increase cohort size

- Statistical power to detect rare events
- Inclusion of other Tetra users?

Improve observations

- Uncertainty on identifying user of each terminal
- More comprehensive NHS data on participants' health
- Follow-up questionnaire about symptoms & Airwave use

Preliminary Analysis

- Recruit a full-time statistician for "5-year" analysis

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