



Australian Government

Australian Radiation Protection and Nuclear Safety Agency

Australian National Radiation Dose Register

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Overview

- Australian National Radiation Dose Register
 - Background
 - Objectives
- ANRDR review of Commonwealth Licence Holders (CLHs)
- Process of implementation
- Discussion questions



Background

ANRDR opened and receives first dose records



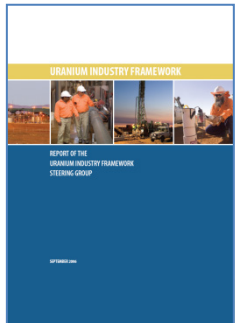
First workshop held



First CLH and mineral sands data expected



Expansion into other industries (medical, vet, industrial, etc.)



Funded for the uranium industry



Officially launched by Minister Ferguson



ANRDR Implemented to 100% of uranium industry
First annual newsletter launched



First aircrew data expected



Objectives of the ANRDR

- Record and track the lifetime radiation dose of workers across multiple jurisdictions and employers
- Assure maintenance of dose records over the long-term
- Produce annual statistics and trends
- Provide dose histories to workers
- Notify regulators and employers when an individual has exceeded their annual dose limit
- Tool for demonstrating optimisation of radiation protection
- Tool for harmonising dose estimation
- Ensure the ANRDR meets international best practice by expanding to cover all occupationally exposed workers



ANRDR review of CLHs

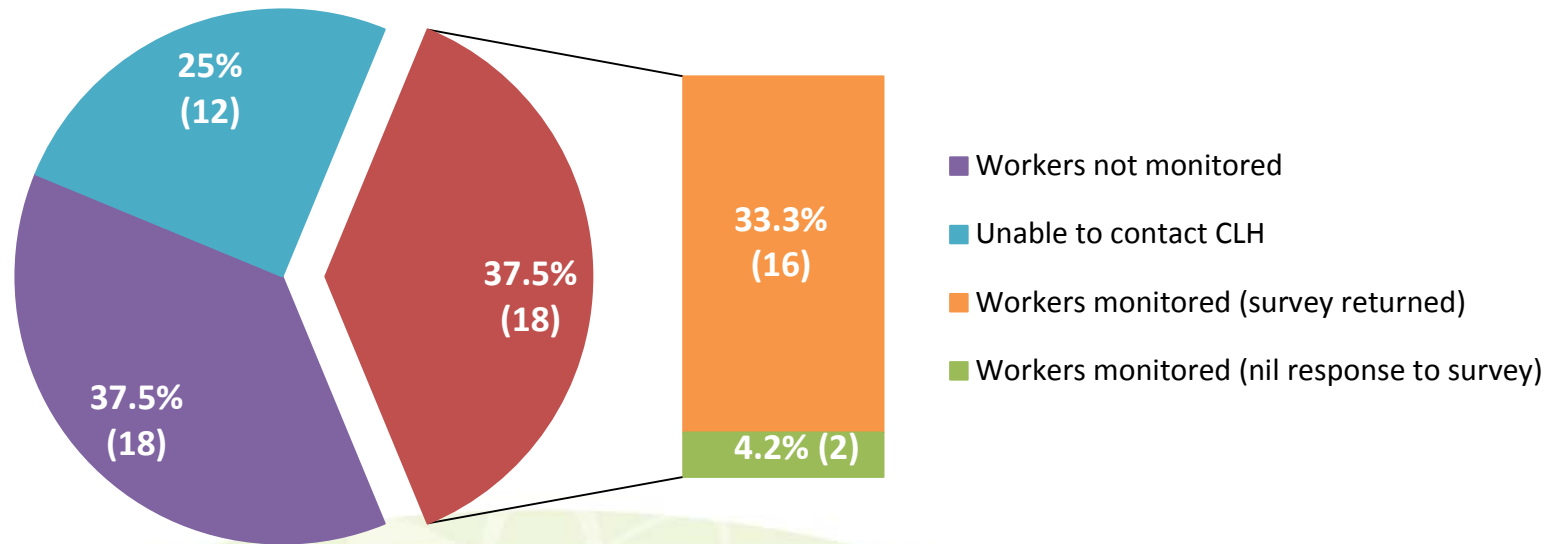
Scope of the Review

- Identify applicable CLHs to assess the number and types of workers monitored for radiation exposure
- Gather information on how radiation dose reporting and data management occurs across different organisations
- Identify legislative issues impacting on the collection and disclosure of dose records to the ANRDR
- Provide recommendations that will inform future decisions for expansion of the ANRDR to CLHs



CLH survey response rate

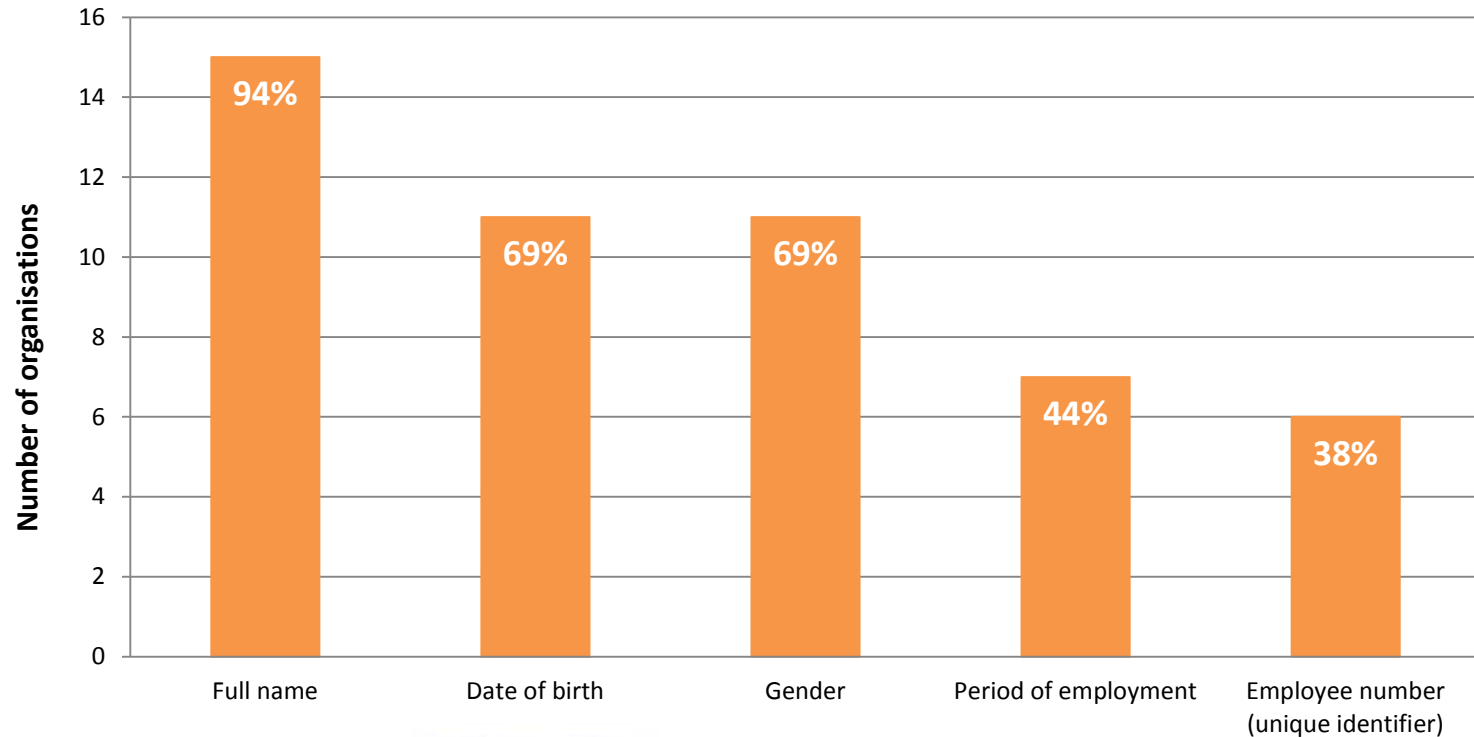
- 18 CLHs monitor workers for ionising radiation exposure
- Achieved a survey response rate of 89%





Survey results – personal data collected

Types of personal data collected for occupational exposure records

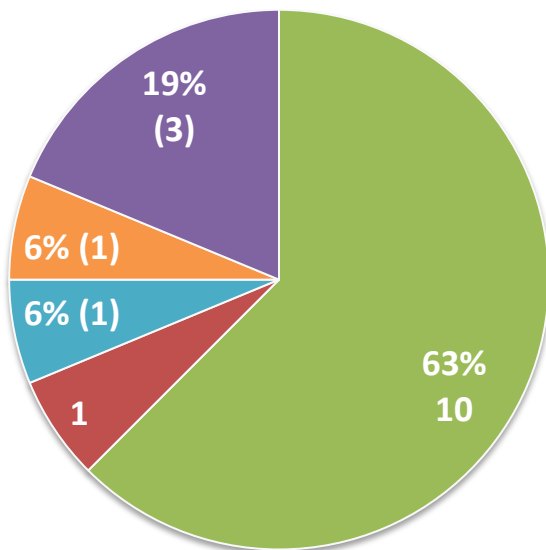


Personal data collected



Survey results – radiation monitoring service

Radiation monitoring service providers



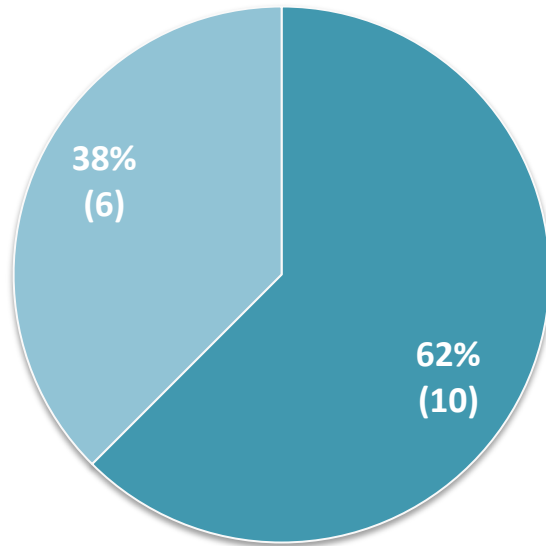
- ARPANSA PRMS
- Australian Radiation Services
- Landauer Australasia
- In-house dosimetry service
- Use more than one service

- 63% (10) of CLHs use ARPANSA's PRMS as their radiation monitoring service
- More than 80% (13) of CLHs use a single service provider
- Several CLHs use a combination of service providers



Survey results – dose record management

Dose record management practices within an organisation



■ Workers monitored across multiple sites

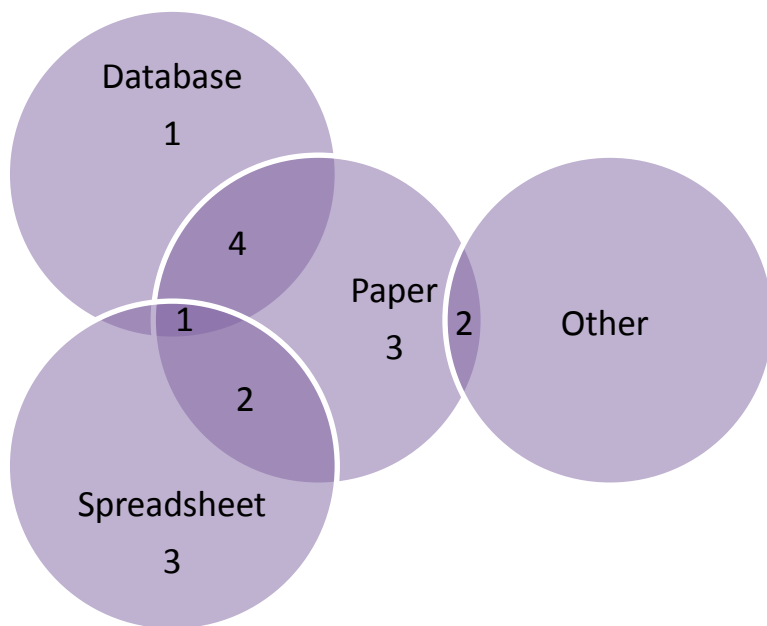
■ Workers monitored in single location

- 62% (10) of CLHs monitor workers across multiple sites
 - of these, 80% (8) manage dose records in a centralised system
- Most CLHs have a central RSO who is responsible for managing dose records for the whole organisation
- In some organisations, each worksite has its own RSO and workers' records are managed independently



Survey results – format of dose records

Format dose records are maintained

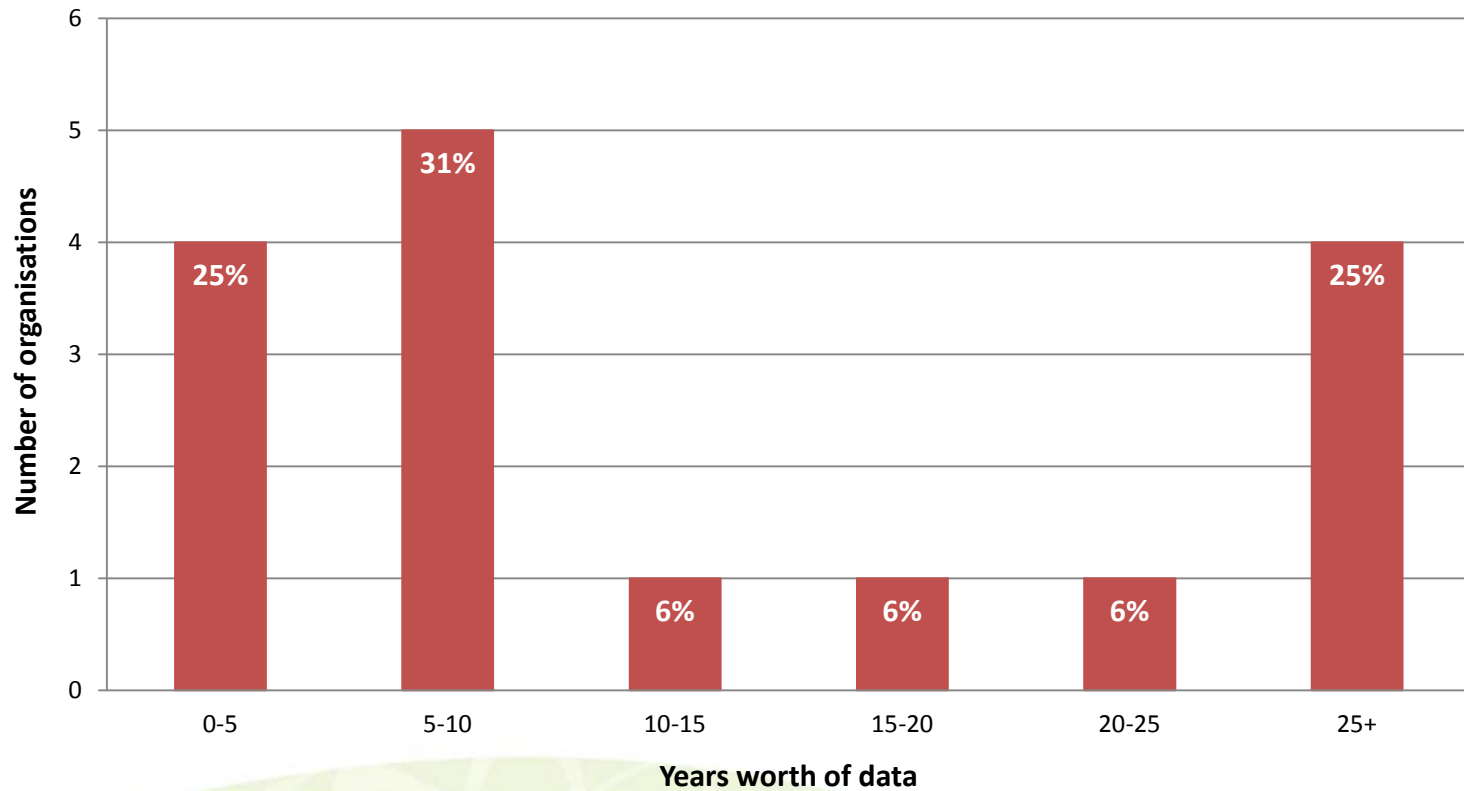


- Most CLHs maintain both digital and paper records
- 69% (11) manage digital records
 - database / spreadsheet
- CLHs that manage digital records maintain the data in a variety of file formats
 - CSV, PDF, HTML
 - 73% have the capacity to export the data in CSV file format



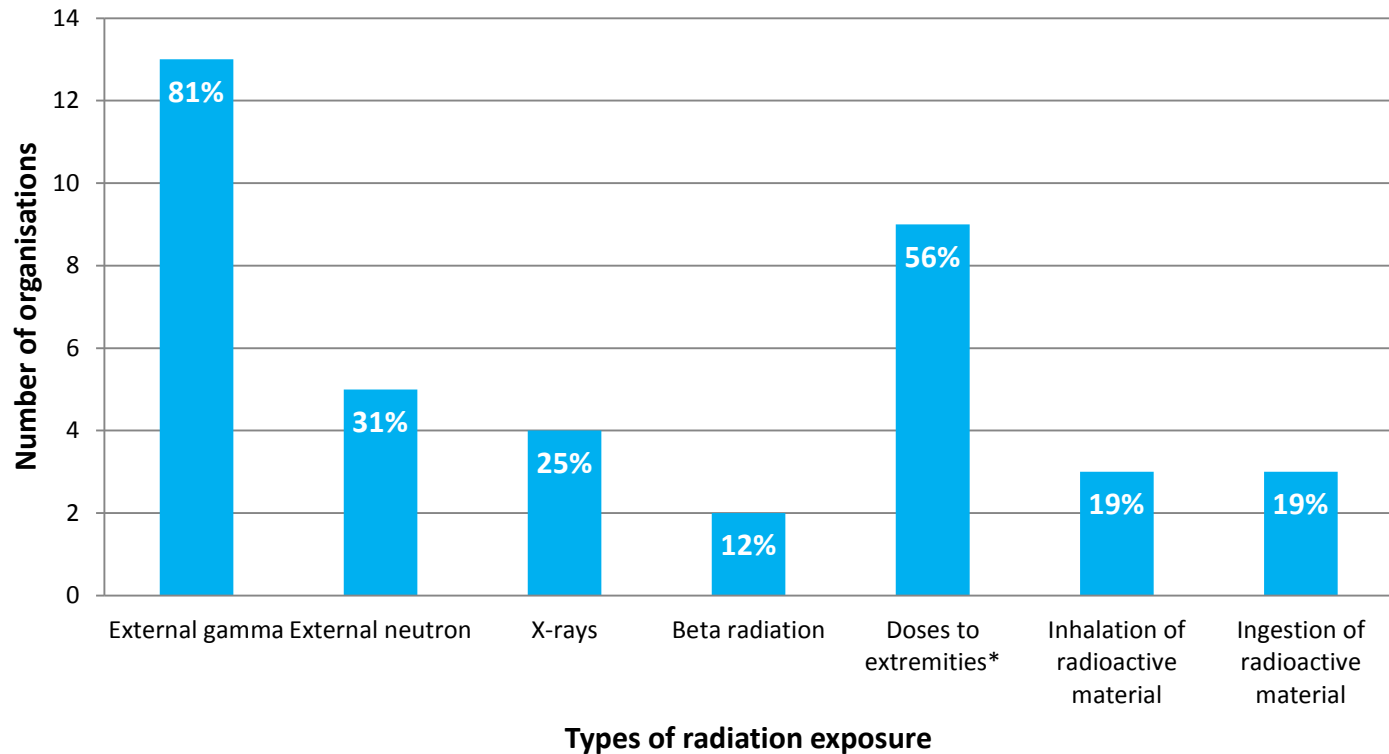
Survey results – historical data

Number of years for which data is maintained





Survey results – types of exposure





New worksite classifications

INDUSTRY TYPE
Airlines
Government
Mineral sands mining
Uranium mining

WORKSITE TYPE – GOVERNMENT
Scientific Research
Security, Defence & Border Protection
Nuclear Installations & Prescribed Radiation Facilities
Other Source Licence Holders

- Upon registering with the ANRDR, employers select an **‘industry type’**, for example;
 - Uranium mining
 - Government
- A **‘worksite type’** is then selected for each worksite to categorise the key functions(s) performed at a particular worksite



Process of implementation

Proposed approach

- Develop the ANRDR database
- Implement licence condition amendments
- Commence pilot phase to test and evaluate the disclosure of dose data to the ANRDR
- CLHs will need to do some work initially to get data in the correct format
- Develop information for industry



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Questions for discussion



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1. What material would you like to see from ARPANSA in implementing the ANRDR in your organisation?
2. The majority of stakeholders surveyed have historical data in some form.
 - How can we use historical data to improve or optimise radiation protection for workers?
 - Do you foresee any obstacles in transferring historical data to the ANRDR?
3. Are there any other issues you would like to discuss?



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THANK YOU

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