2012 Scientific Advisory Committee Meeting
Anthony's at Columbia Point, Richland, WA
September 7 – 8, 2012

÷ Health Physics Database ÷ Standardization of Exposure Records and Bioassay Data

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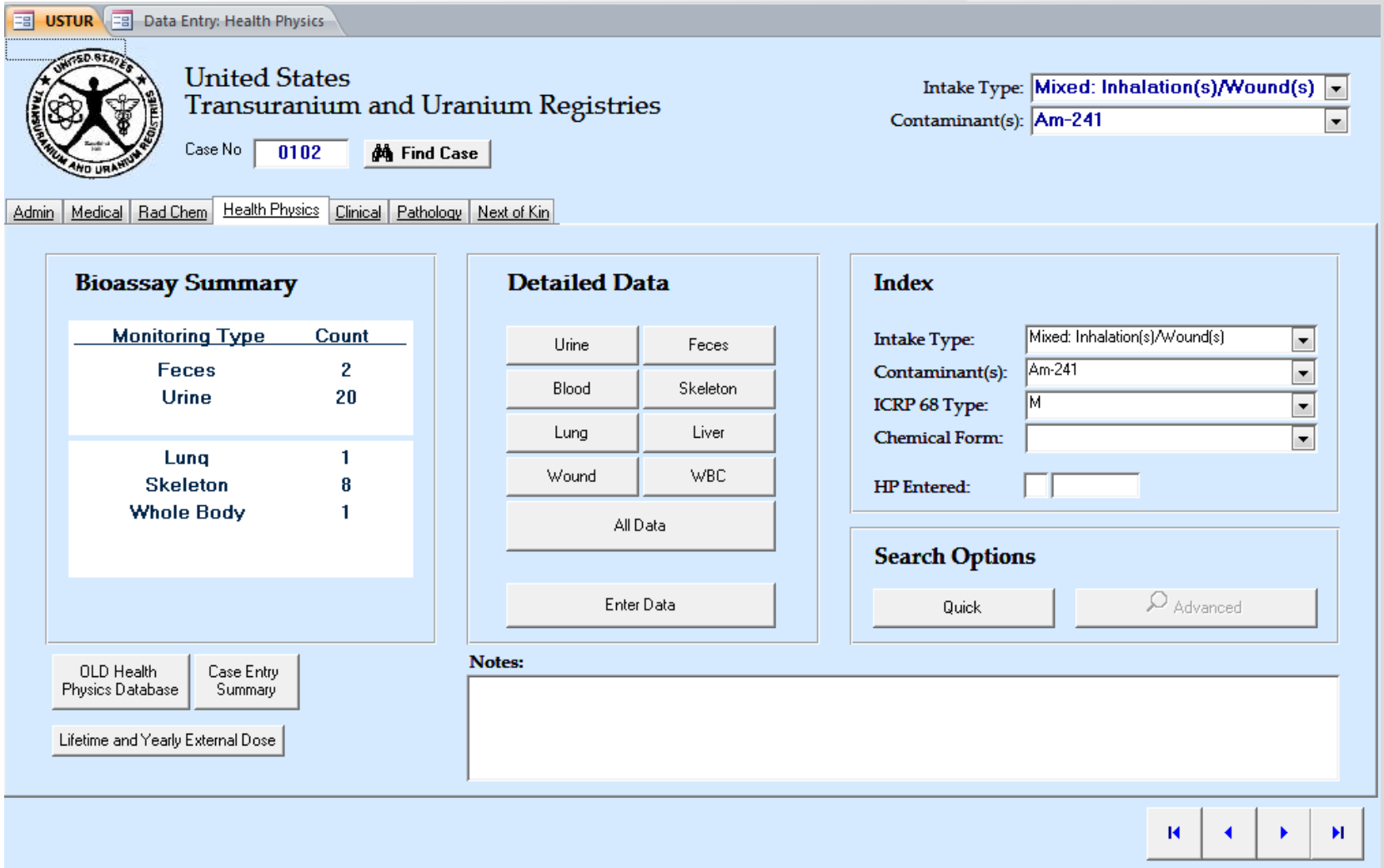
Health Physics Database

Goal:

- Standardized and searchable
  - Exposure Records;
  - Bioassay Data;
  - Historical Dose Assessments;
  - Decorporation Treatment Records

- Designed to make the data easily available for scientists studying the distribution and dosimetry of actinides in the human body

Health Physics Database

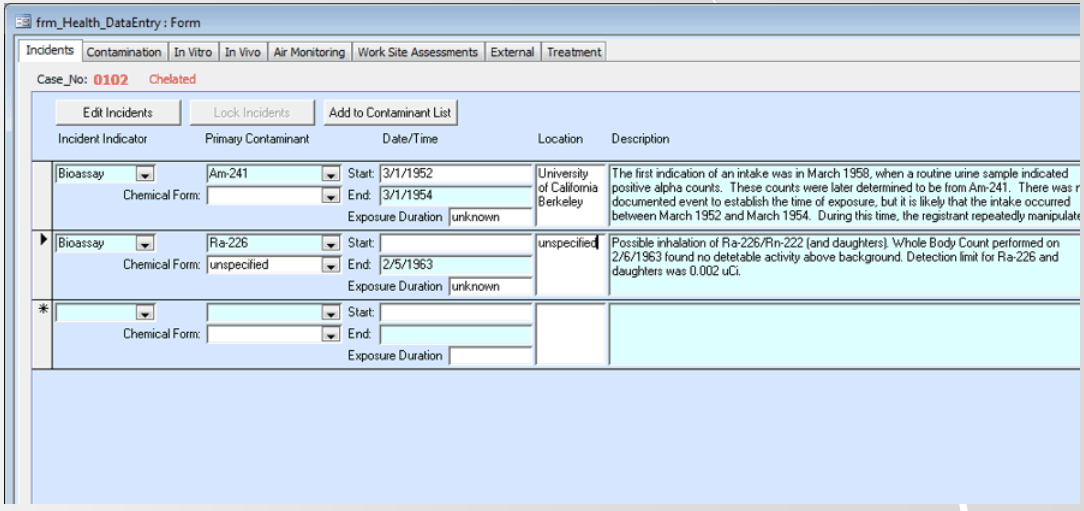


Health Physics Database

'Incidents' Tab

Possible Intakes Categorized by:

- Incident Indicators
  - ✓ Air Sample
  - ✓ Bioassay
  - ✓ Contamination
  - ✓ Criticality
  - ✓ Explosion
  - ✓ External
  - ✓ Fire
  - ✓ Hazard Report
  - ✓ Nasal Smear
  - ✓ Wound



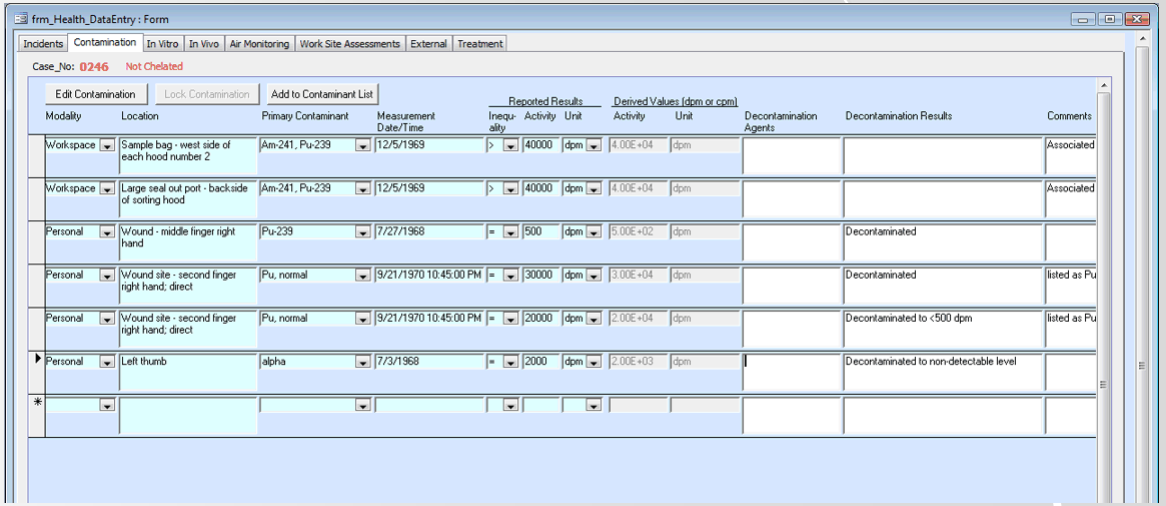
- Primary Contaminant
- Date/Time
- Location
- Description

Health Physics Database

'Contamination' Tab

Details on reported contamination incidents

- Modality
  - ✓ Personal
  - ✓ Clothing
  - ✓ Workspace
- Location
- Contaminant
- Measurement Date/Time
- Reported Results
- Decontamination Agents / Results

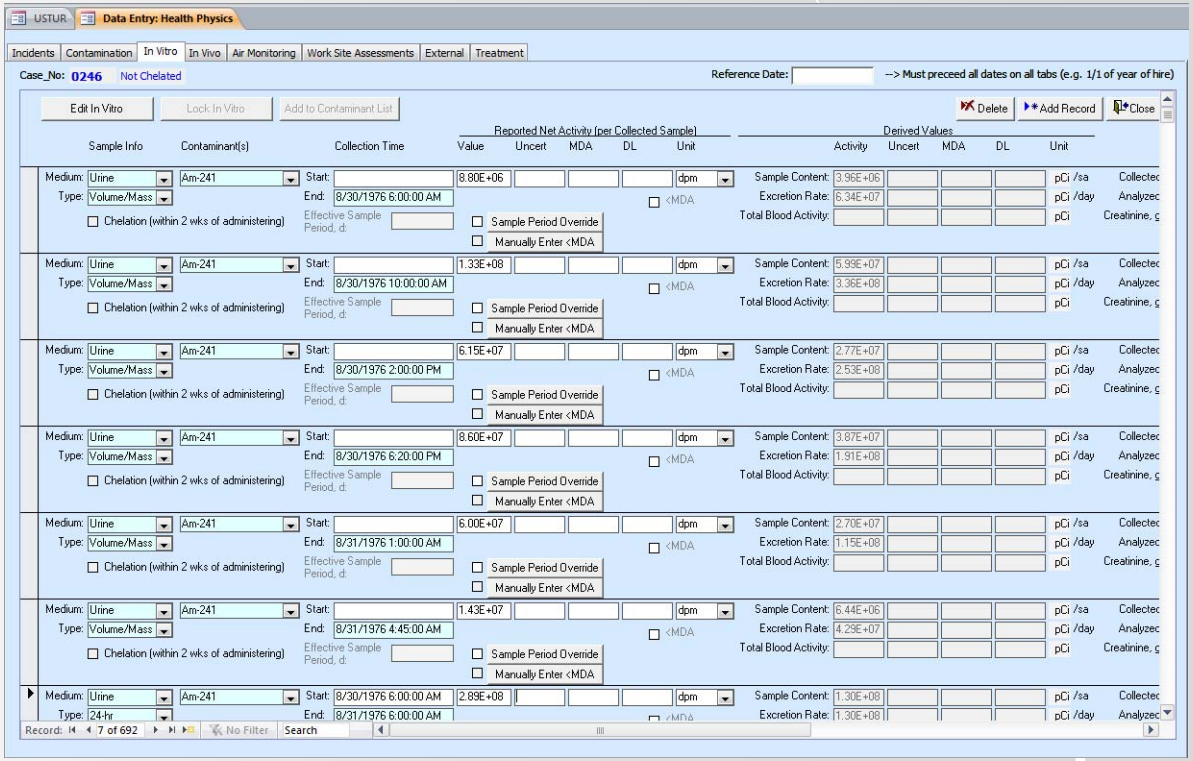


USTUR Health Physics Database

'In Vitro' Tab

Blood, Urine, Fecal, Nasal Smear, Oral Smear Data

- Sample Info
  - Medium
  - Type
- Contaminant
- Collection Time
- Reported Results
  - Value
  - Uncertainty
  - MDA / DL

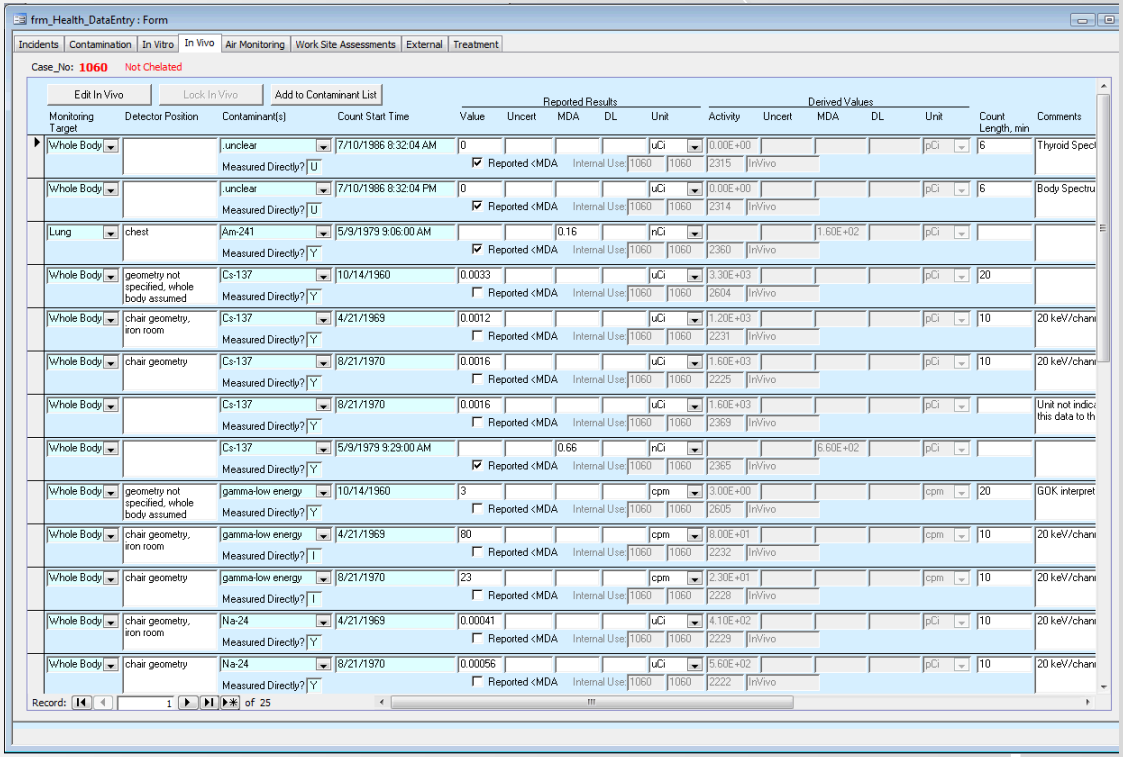


USTUR Health Physics Database

'In Vivo' Tab

Data associated with *in vivo* (direct) measurements

- Monitoring Target
  - ✓ Whole Body
  - ✓ Lung
  - ✓ Liver
  - ✓ Wound
  - ✓ etc
- Contaminant
- Count Start Time
- Reported Results
- Laboratory / Detectors

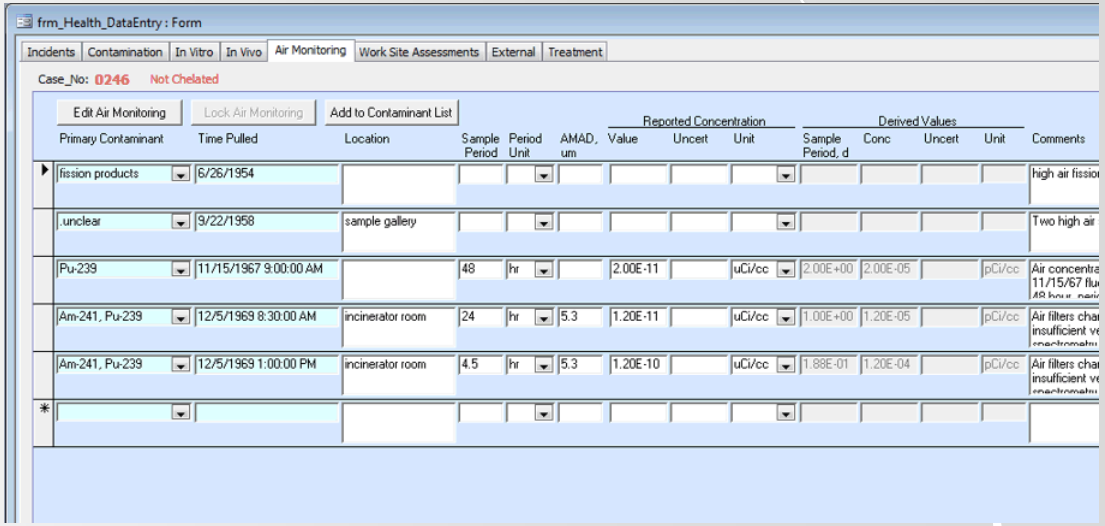


Health Physics Database

'Air Monitoring' Tab

Displays air sampling data

- Contaminant
- Measurement Time
- Sample Info
  - ✓ Volume
  - ✓ Sampling Period
- Reported Results

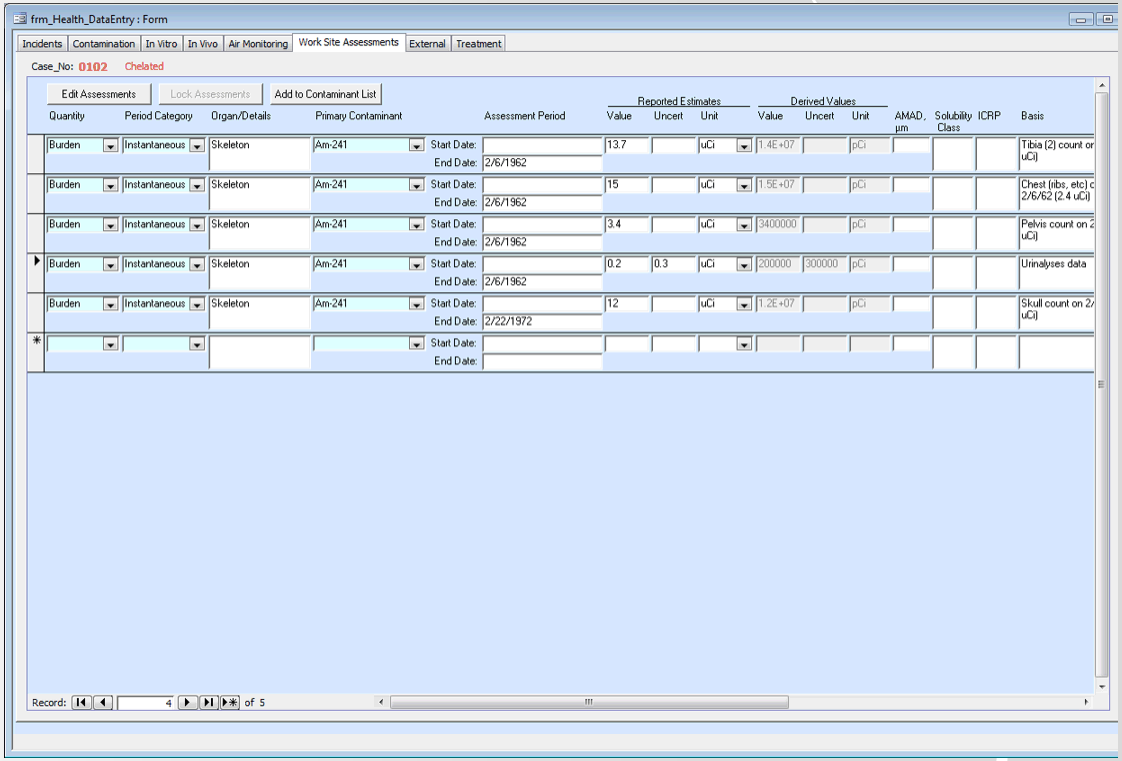


Health Physics Database

'Work Site Assessments' Tab

Interpretation of *in vivo* and *in vitro* measurements into dosimetric quantities

- Quantity
- Contaminant
- Assessment Period
- Reported Estimate
- Material Type:
  - ✓ AMAD
  - ✓ Solubility Class
- Assessment Basis

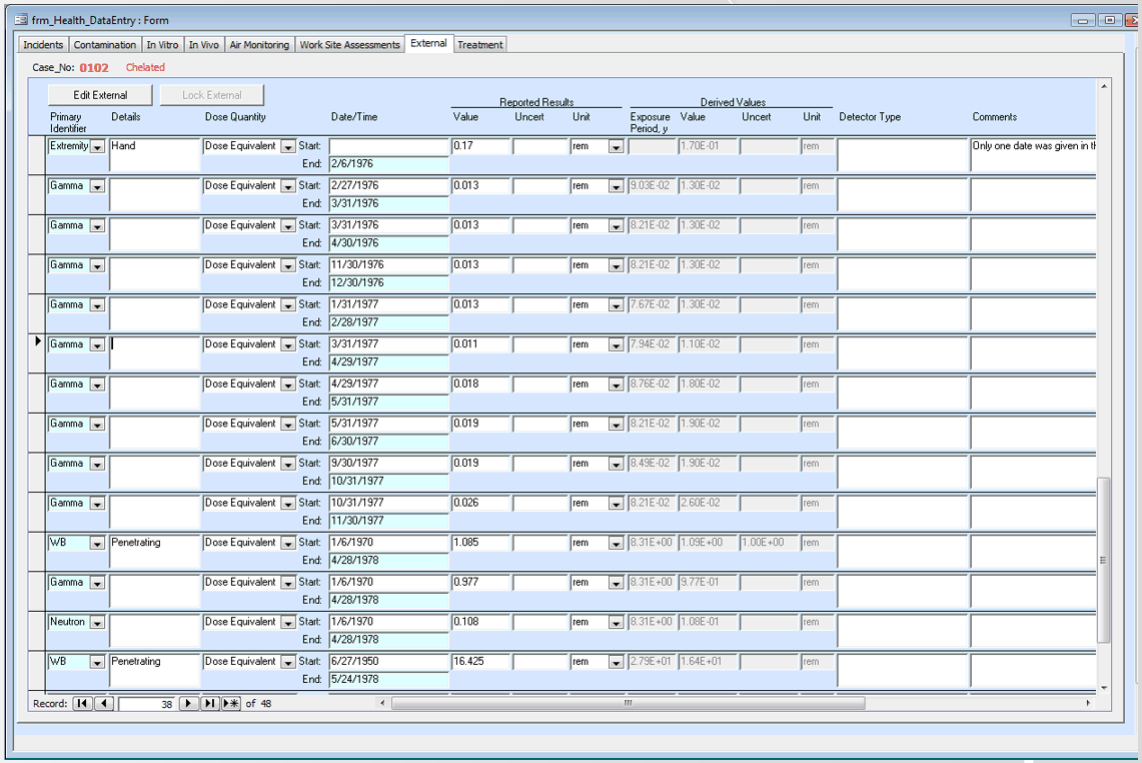


Health Physics Database

'External' Tab

Summary of external radiation measurements

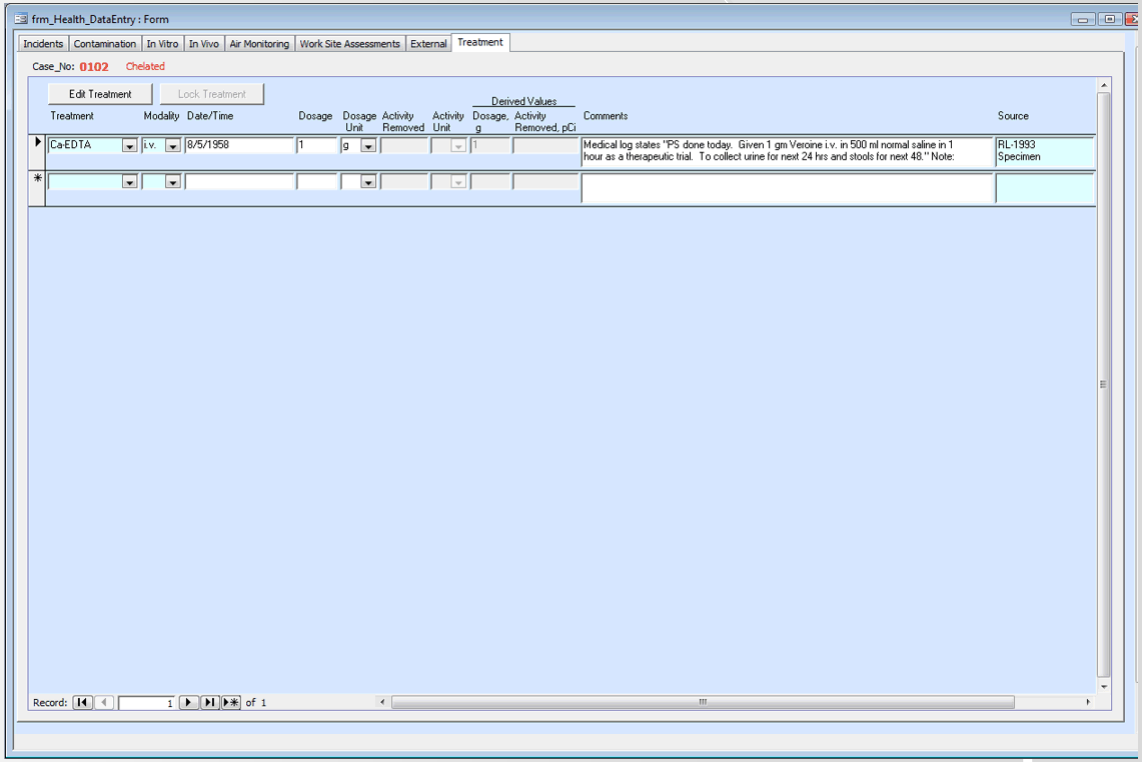
- Primary Identifier
  - ✓ Penetrating
  - ✓ Skin
  - ✓ Gamma
  - ✓ etc
- Monitoring Period
- Dose Quantity
- Date/Time
- Reported Estimate
- Detector Type



Health Physics Database

'Treatment' Tab

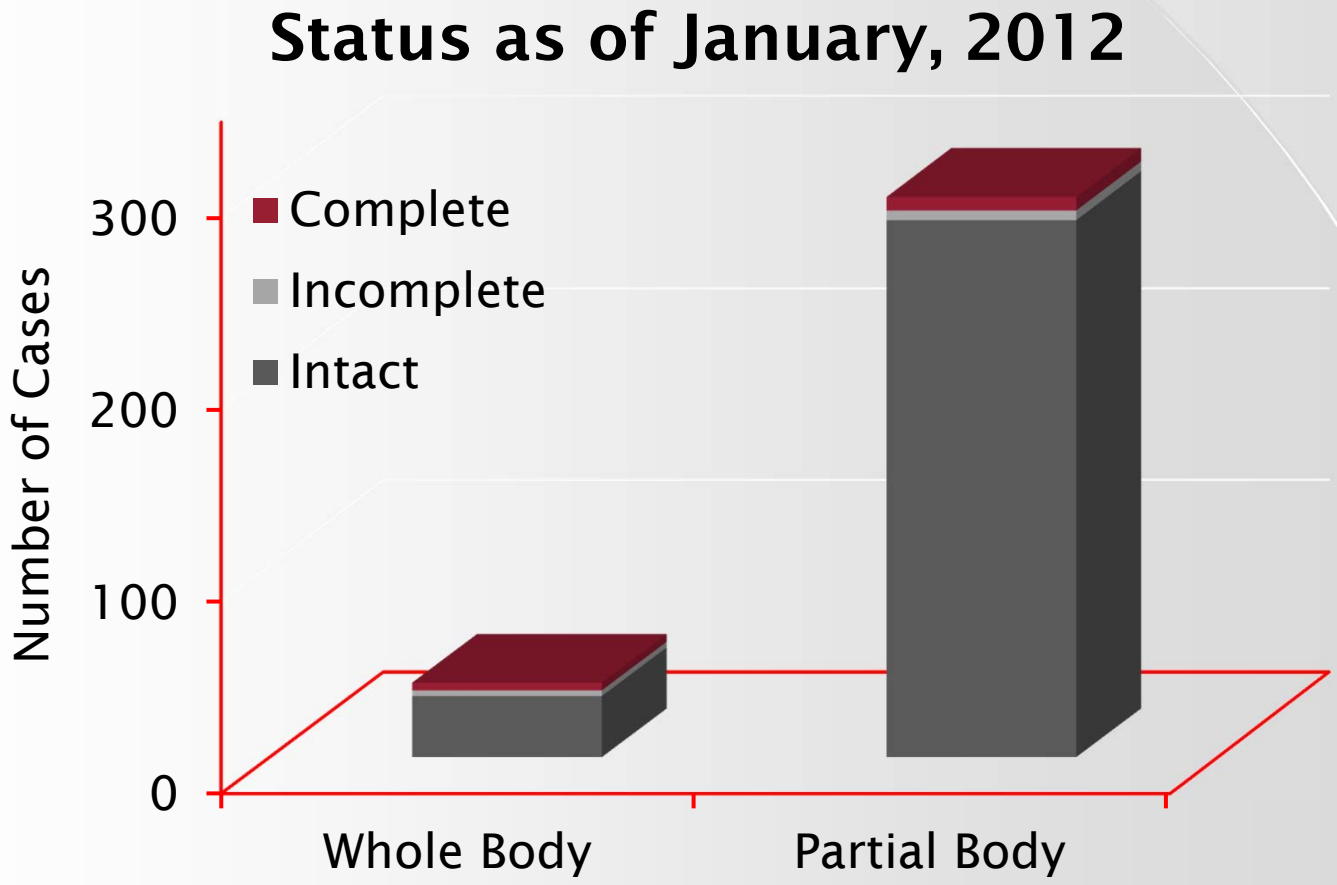
- Treatment Type
  - ✓ Chelation
  - ✓ Wound Excision
  - ✓ Wound Irrigation
- Chelating Agent
- Modality
- Date/Time
- Dosage
- Activity Removed



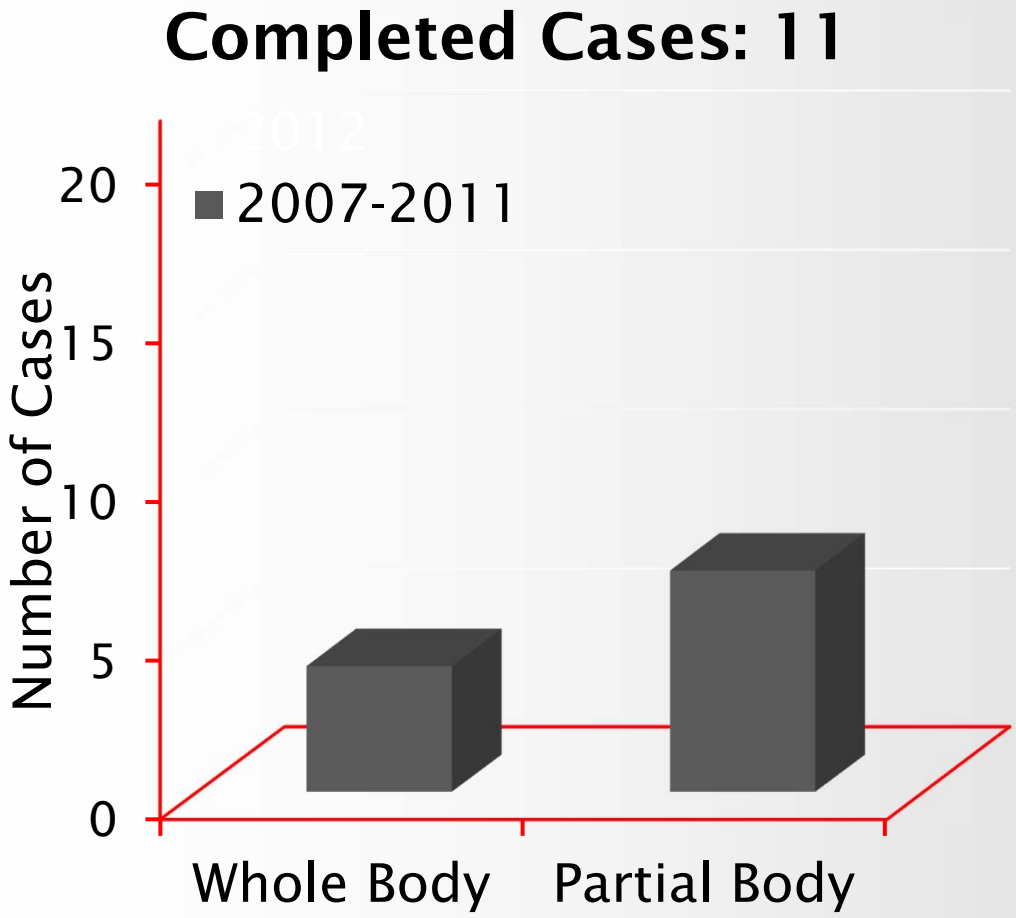
USTUR Registrants

Total Active and Deceased Registrants		414
Living Registrants:		78
	Potential Partial-body Donors:	59
	Potential Whole-body Donors:	12
	Special Studies:	7
Deceased Registrants:		336
	Partial-body Donations:	292
	Whole-body Donations:	39
	Special Studies:	5
Inactive Registrants:		461
Total Number of Registrants:		875

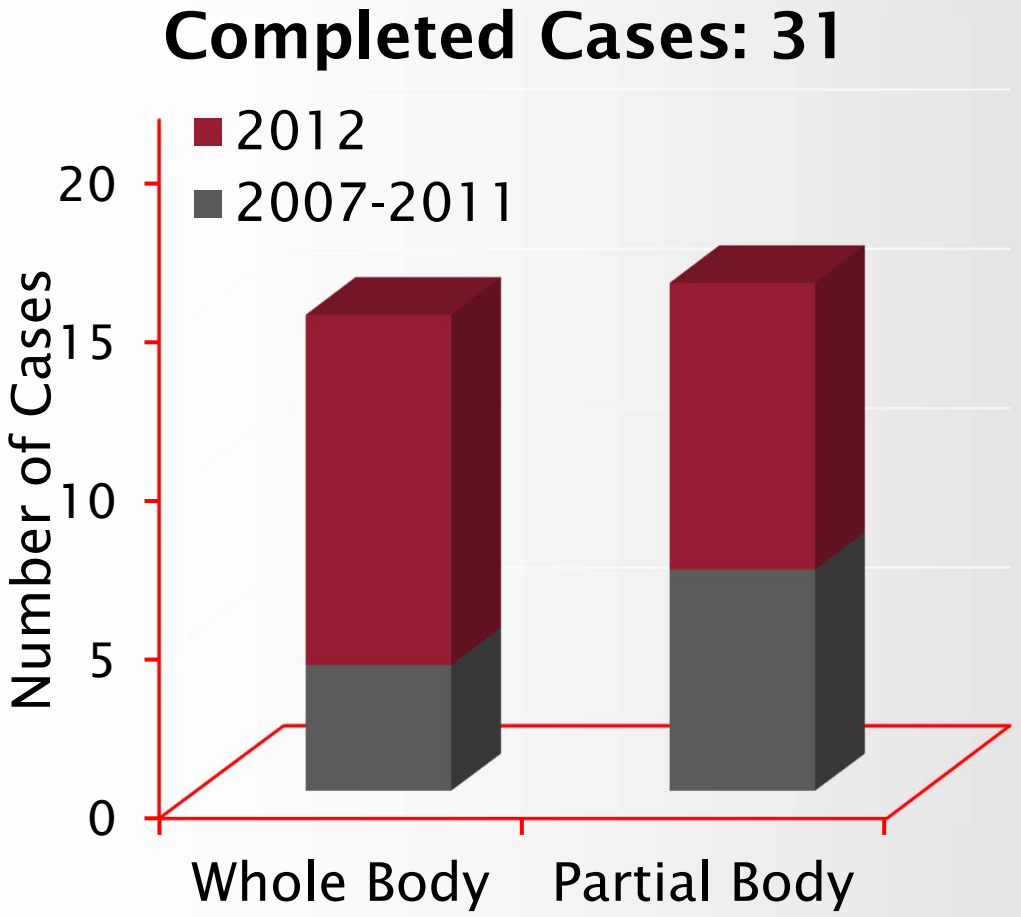
Health Physics Database



Health Physics Database: Current Status



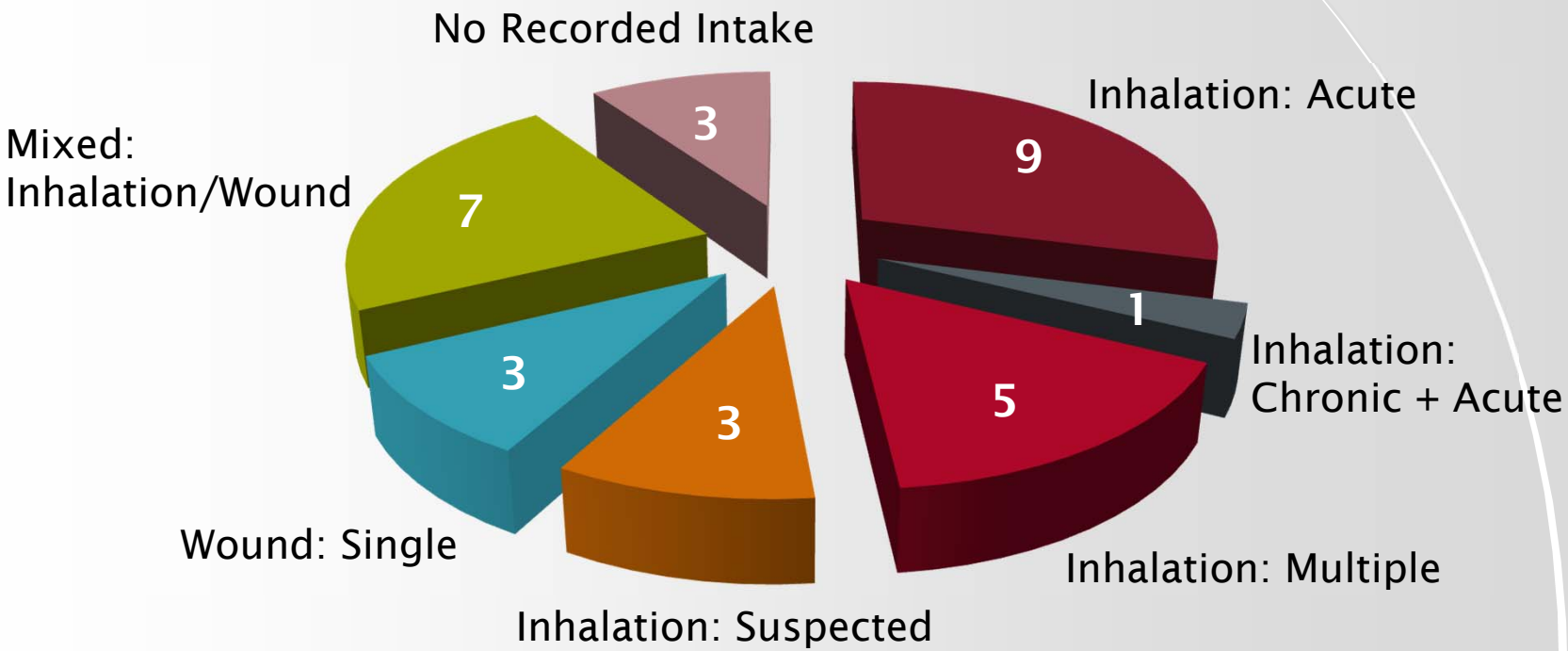
Health Physics Database: Current Status



- Whole Body: 15 (39)
  - ROC 9 (9)
  - LOS 3 (11)
  - HAN 2 (8)
  - OAK 1 (2)
- Partial Body: 16 (292)
  - ROC 13 (117)
  - LOS 2 (29)
  - HAN 1 (107)

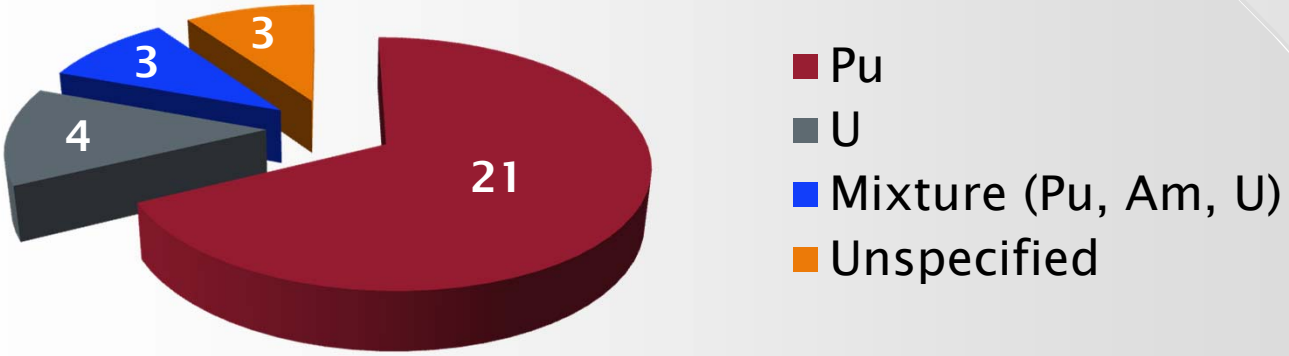
Health Physics Database: Current Status

Completed Cases By Intake Type

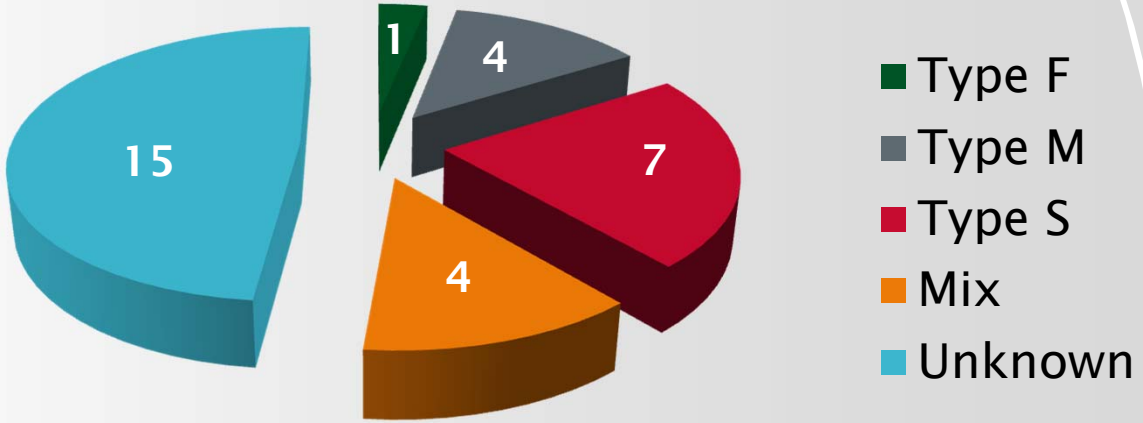


Health Physics Database: Current Status

Completed Cases By Contaminant



Completed Cases By Solubility Class



Number of Records: Whole Body Cases

Case Number	0205	0407	0425	0456	0503	0706	0720	0744	0990	0631	0680
Incidents	1	3	28	1	4	4	30	61	12	8	14
Contamination	0	7	18	0	0	0	27	71	8	0	4
Ext. Dosimetry	142	223	84	386	43	17	307	541	741	2	0
In-Vitro Bioassay	36	110	63	24	44	234	251	298	287	88	232
Blood	0	7	0	0	0	0	1	3	1	0	1
Feces	0	20	0	0	0	0	0	0	15	0	1
Urine	36	83	63	24	44	234	250	293	271	8	17
Other	0	0	0	0	0	0	0	2	439	80	213
In-Vivo Bioassay	12	215	43	21	16	220	332	365	439	21	34
Liver	3	23	4	1	0	18	11	8	18	3	8
Lung	8	184	37	19	16	176	309	287	379	11	11
Skeleton	0	1	0	0	0	0	0	0	0	4	3
Whole Body	0	0	0	0	0	0	0	0	0	0	4
Wound	0	0	2	0	0	26	4	55	15	0	0
Other	1	7	0	1	0	0	8	15	27	6	8
Air Monitoring	0	2	10	0	0	0	19	57	4	0	0
Work Site Asses.	10	6	5	6	5	8	194	195	247	579	17
Treatments	0	5	0	0	0	7	0	2	0	0	0
Total	**201**	**571**	**251**	**438**	**112**	**490**	**1160**	**1590**	**1738**	**698**	**301**

Number of Records: Partial Body Cases

Case Number	0023	0024	0027	0029	0030	0031	0032	0033	0636
Incidents	27	0	3	8	5	6	4	27	6
Contamination	43	0	6	7	1	1	0	31	0
Ext. Dosimetry	160	30	113	117	1	1	112	145	111
In-Vitro Bioassay	56	3	109	28	39	137	12	23	116
Blood	2	0	0	1	0	0	0	0	0
Feces	0	0	0	0	0	0	0	0	0
Urine	54	3	109	27	39	137	12	23	116
Other	0	0	0	0	0	80	0	0	0
In-Vivo Bioassay	24	0	3	5	3	13	8	13	4
Liver	2	0	1	0	1	0	2	2	0
Lung	2	0	2	3	2	0	4	6	3
Skeleton	0	0	0	0	0	0	0	0	0
Whole Body	0	0	0	0	0	0	0	0	0
Wound	18	0	0	0	0	13	0	5	1
Other	2	0	0	0	0	0	2	0	0
Air Monitoring	24	0	11	3	0	3	0	19	0
Work Site Asses.	13	1	2	3	2	4	2	3	385
Treatments	2	0	0	0	0	13	0	0	0
Total	**349**	**34**	**247**	**171**	**51**	**178**	**138**	**261**	**622**

Data Entry Priorities

- New Donations
- Incomplete Cases
- Whole Body Cases: ROC, LOS, HAN
- Partial Body Cases

Thank you for your attention

Questions?