



Public Health
England

Protecting and improving the nation's health

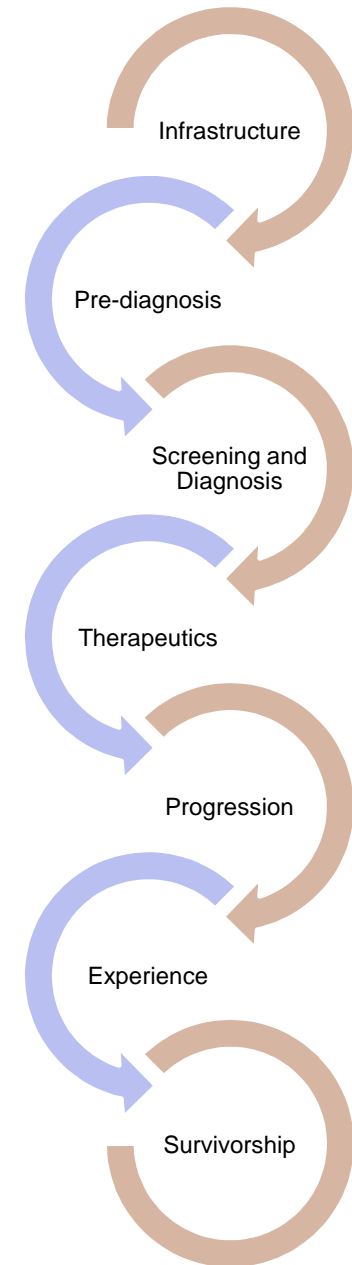
How does your data support patient care and research?

John Broggio, Principal Analyst
National Cancer Registration and Analysis Service (NCRAS)

Strategic review

Strategic review

- The Cancer Taskforce held a strategic review of the current framework and formulated a set of recommendations for the NHS, PHE and the Department of Health that aims to improve the outcomes for cancer patients in England.
- NCRAS has refocused all its analytical resource to meet its contribution to the Taskforce recommendations. Some of the key areas of work include:
 - Delivery and maintenance of cancer outcome indicators for the Secretary of State for Health
 - Supporting the evaluation of cancer screening
 - Investment in Be Clear On Cancer campaigns
 - Monitoring & reporting survival of cancer patients
 - Examining the impact of geography on outcomes



Strategic review

18

ACHIEVING WORLD-CLASS CANCER OUTCOMES: A STRATEGY FOR ENGLAND 2016-2020

Cancer performance in Exampleshire CCG

Cancer
Taskforce

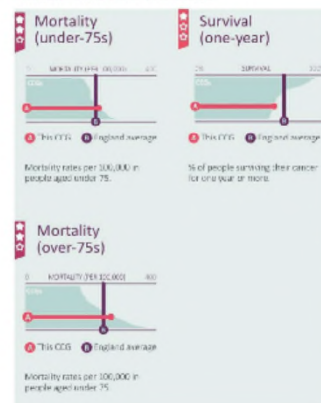
June 2015

Introductory notes about this CCG. The measures included and the data sources, including sources for further information and any important notes, caveats or points to consider.

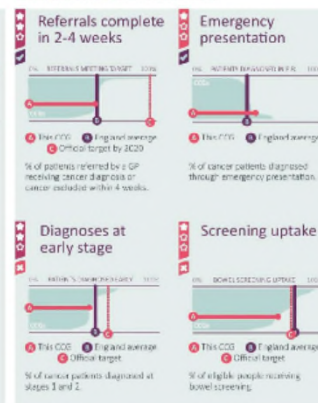
KEY

★ Better than England average
 ★ Similar to England average
 ★ Worse than England average
 ★ Meets official target
 ★ Does not meet official target
 Differences are statistically significant based on 95% confidence levels

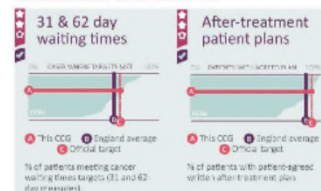
VITAL STATISTICS EXAMPLESHIRE CCG



EARLY DIAGNOSIS EXAMPLESHIRE CCG



CANCER SERVICES EXAMPLESHIRE CCG



PATIENT EXPERIENCE PROVIDER NAME



Figure 8: Example 'dashboard' of metrics

Research

Research

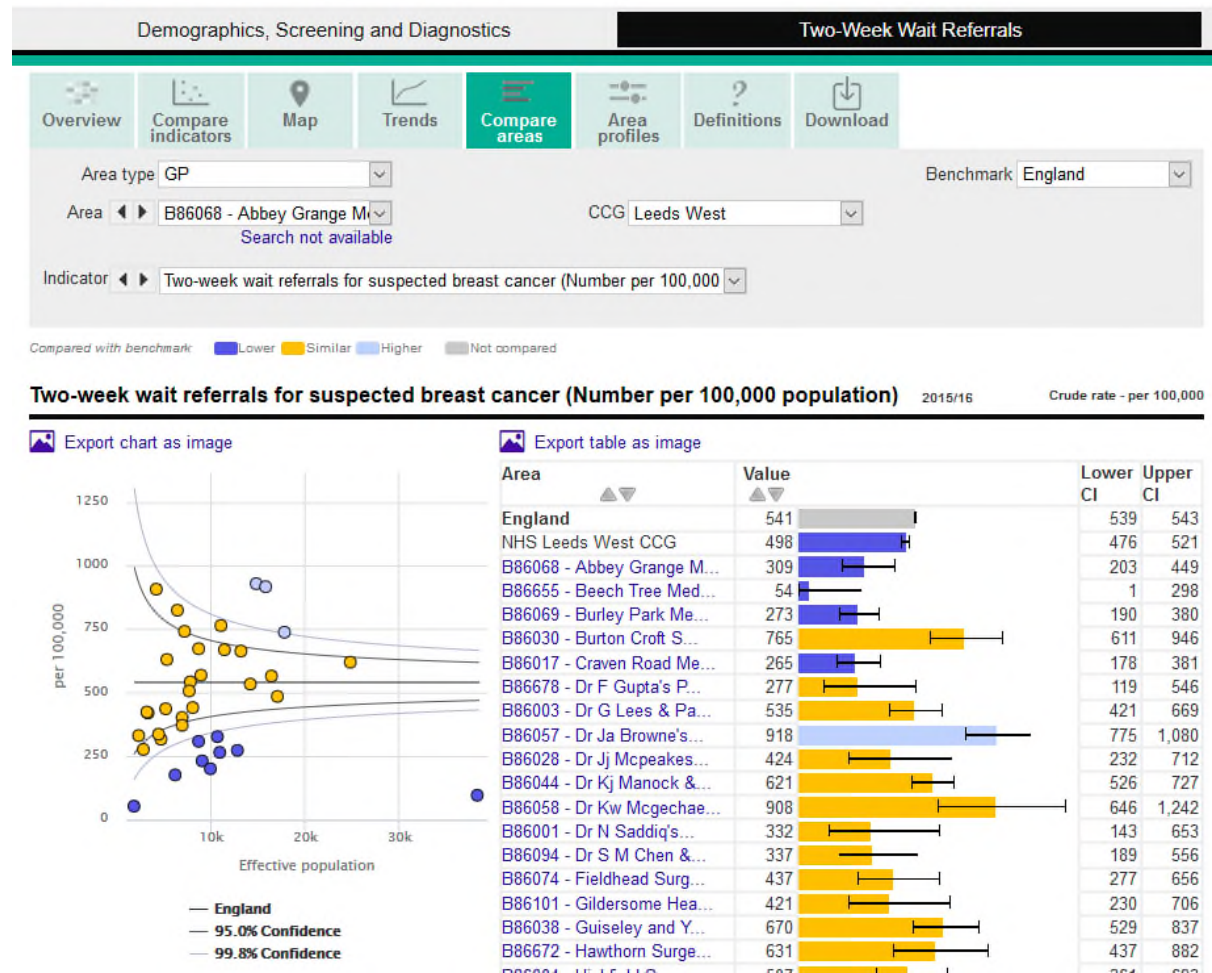
There are currently a range of tools available in the (semi-)public domain that may help answer (or initiate) some research questions:

- Public Health Profiles (including GP profiles) – all on Fingertips
- Longer Lives
- CancerStats (N3 network & login required)
- NCRAS website
 - Topic and site specific reports/briefings
 - Guidance from ODR on obtaining data access
- Simulacrum – coming soon!

Research

Public Health Profiles (Fingertips) Cancer Services

Indicator keywords



Research

CancerStats – audits may also be available (depends on user).

Incidence > Standardised Rates

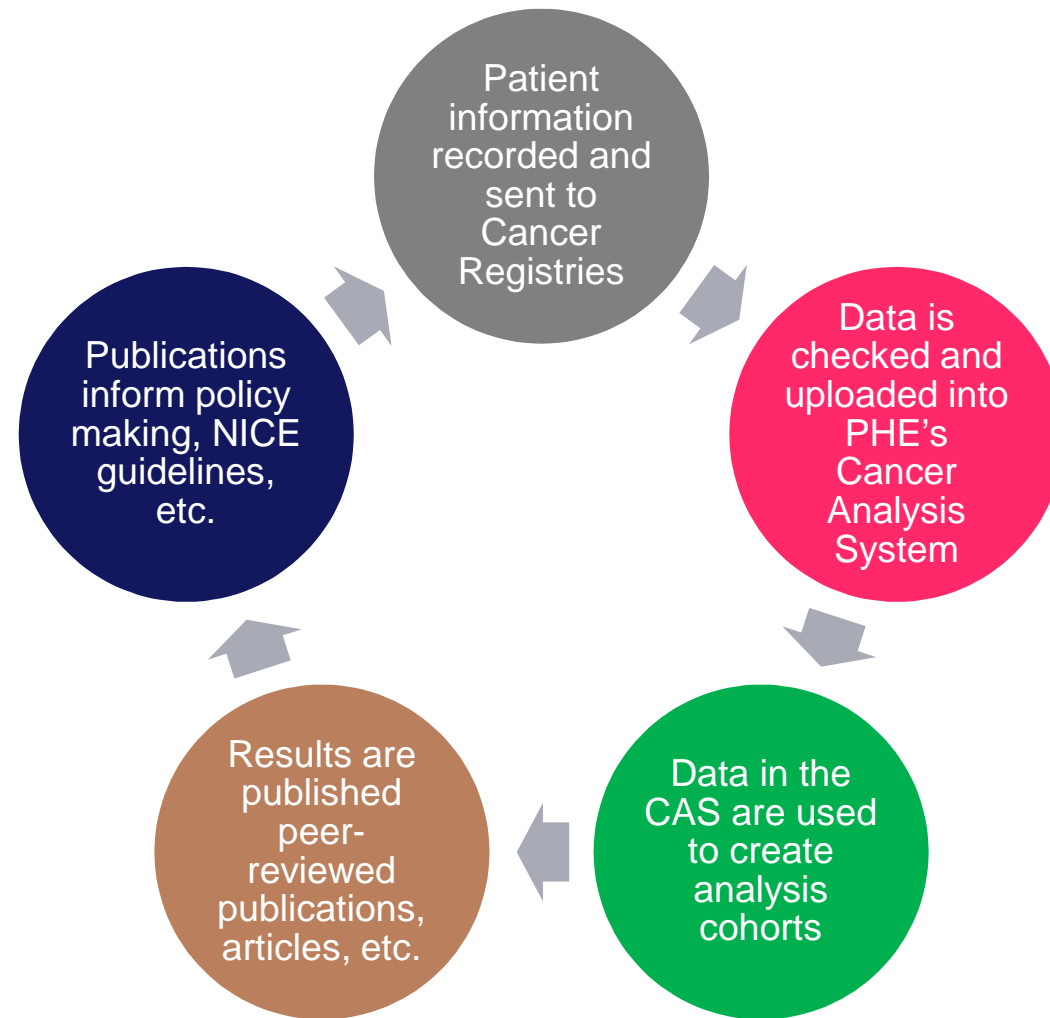
Incidence data for England is currently available to the end of 2014. The latest year for Northern Ireland, Scotland and Wales data is currently 2013.

Table Filter Export

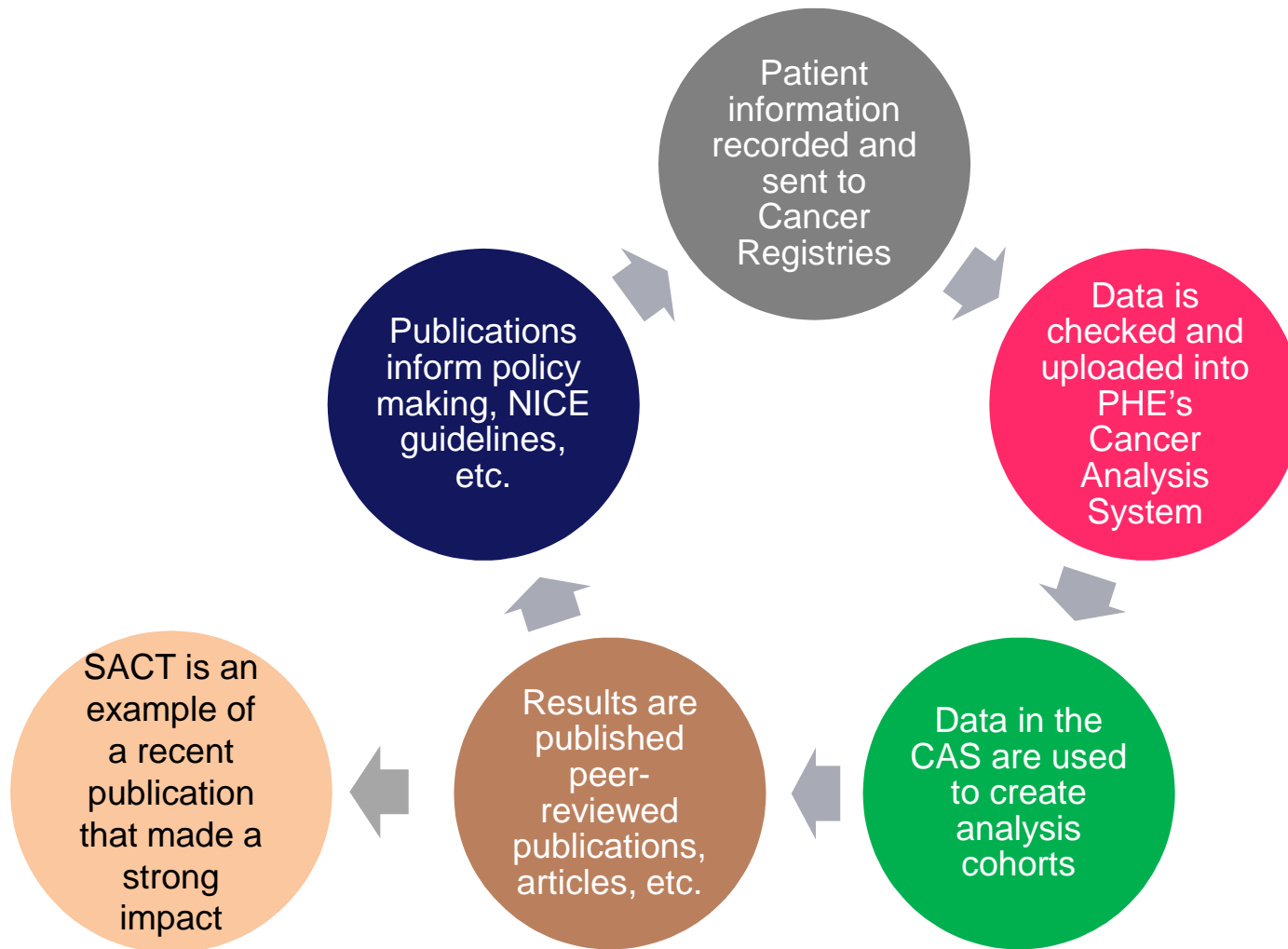
Year	Gender	Age	Geography		Tumour Class		Total	Rate	LCI	UCI
			Name	Code	Name	ICD10	Number of Tumours	per 100,000	@ 95%	@ 95%
2014	Male	All	England	921	Colorectal	C18-C20	18,786	84.51	83.29	85.75
2014	Female	All	England	921	Colorectal	C18-C20	15,227	56.35	55.45	57.26
2014	Persons	All	England	921	Colorectal	C18-C20	34,013	70.43	69.67	71.19
2014	Male	All	NHS Airedale, Wharfedale & Craven	02N	Colorectal	C18-C20	59	76.58	58.22	99.66
2014	Female	All	NHS Airedale, Wharfedale & Craven	02N	Colorectal	C18-C20	60	61.64	46.70	80.70
2014	Persons	All	NHS Airedale, Wharfedale & Craven	02N	Colorectal	C18-C20	119	69.11	55.71	82.51
2014	Male	All	NHS Barnsley	02P	Colorectal	C18-C20	79	73.18	57.78	93.00
2014	Female	All	NHS Barnsley	02P	Colorectal	C18-C20	53	42.74	31.97	56.30
2014	Persons	All	NHS Barnsley	02P	Colorectal	C18-C20	132	57.96	47.26	68.66
2014	Male	All	NHS Bassetlaw	02Q	Colorectal	C18-C20	54	99.97	74.44	133.97
2014	Female	All	NHS Bassetlaw	02Q	Colorectal	C18-C20	30	46.92	31.60	68.12
2014	Persons	All	NHS Bassetlaw	02Q	Colorectal	C18-C20	84	73.44	55.99	90.90
2014	Male	All	NHS Bradford City	02W	Colorectal	C18-C20	8	50.94	21.37	113.45
2014	Female	All	NHS Bradford City	02W	Colorectal	C18-C20	6	34.50	12.08	79.10
2014	Persons	All	NHS Bradford City	02W	Colorectal	C18-C20	14	42.72	14.25	71.19

Reports, papers, articles & journals

Reports, papers, articles & journals



Reports, papers, articles & journals



Reports, papers, articles & journals

30-day mortality after systemic anticancer treatment for breast and lung cancer in England: a population-based, observational study (The Lancet, 2016)

- “Our *findings show that several factors affect the risk of early mortality of breast and lung cancer patients in England and that some groups are at a substantially increased risk of 30-day mortality.*
- *The identification of hospitals with significantly higher 30-day mortality rates should promote review of clinical decision making in these hospitals.*
- *Furthermore, our results highlight the importance of collecting routine data beyond clinical trials to better understand the factors placing patients at higher risk of 30-day mortality, and ultimately improve clinical decision making.*
- *Our insights into the factors affecting risk of 30-day mortality will help treating clinicians and their patients predict the balance of harms and benefits associated with SACT.”*

[http://www.thelancet.com/journals/lanonc/article/PIIS1470-2045\(16\)30383-7/abstract](http://www.thelancet.com/journals/lanonc/article/PIIS1470-2045(16)30383-7/abstract)

Reports, papers, articles & journals

30-day mortality after systemic anticancer treatment for breast and lung cancer in England: a population-based, observational study (The Lancet, 2016)

- *“Our findings show that several factors affect the risk of early mortality of breast and lung cancer patients in England and that some groups are at a substantially increased risk of 30-day mortality.*
- *The identification of hospitals with significantly higher 30-day mortality rates should promote review of clinical decision making in these hospitals.*
- *Furthermore, our results highlight the importance of collecting routine data beyond clinical trials to better understand the factors placing patients at higher risk of 30-day mortality, and ultimately improve clinical decision making.*
- *Our insights into the factors affecting risk of 30-day mortality will help treating clinicians and their patients predict the balance of harms and benefits associated with SACT.”*

[http://www.thelancet.com/journals/lanonc/article/PIIS1470-2045\(16\)30383-7/abstract](http://www.thelancet.com/journals/lanonc/article/PIIS1470-2045(16)30383-7/abstract)

International review

International review

International Cancer Benchmarking Partnership (ICBP):

- Spans across 22 jurisdictions, 8 countries and 3 continents.
- Four cancers (breast, colorectal, lung, ovary)
- Five modules of study (3 complete):
 - International cancer survival benchmark
 - Examining public awareness, beliefs and attitudes to cancer
 - Role of primary care doctors and health systems in diagnosis
 - *Measuring time intervals and pathways from symptoms to diagnosis and treatment*
 - *Impact of registry processes and comorbidities on short term outcomes*

Without high quality data we cannot make valid inferences about differences in cancer outcomes between these geographies.

International review

The ICBP has led to:

- Innovative methods and research tools to enable robust and unique international comparisons
- The first international comparisons of cancer survival and stage at diagnosis
- Cancer plans in England (and beyond)
- Innovations in diagnostic pathways in England
- Initiatives to improve access to diagnostics in England
- **Projects to improve data completeness and availability in England**

International review

ICBP Phase 2 is now underway and will

- Update the international cancer survival benchmark, including quantifying the effect of local registration practices on short term cancer survival
- Analyse
 - Access to diagnostics and investigations
 - **Access to treatments and related factors**
 - **Cancer patient care pathways**
 - The structure of healthcare systems

Campaigns

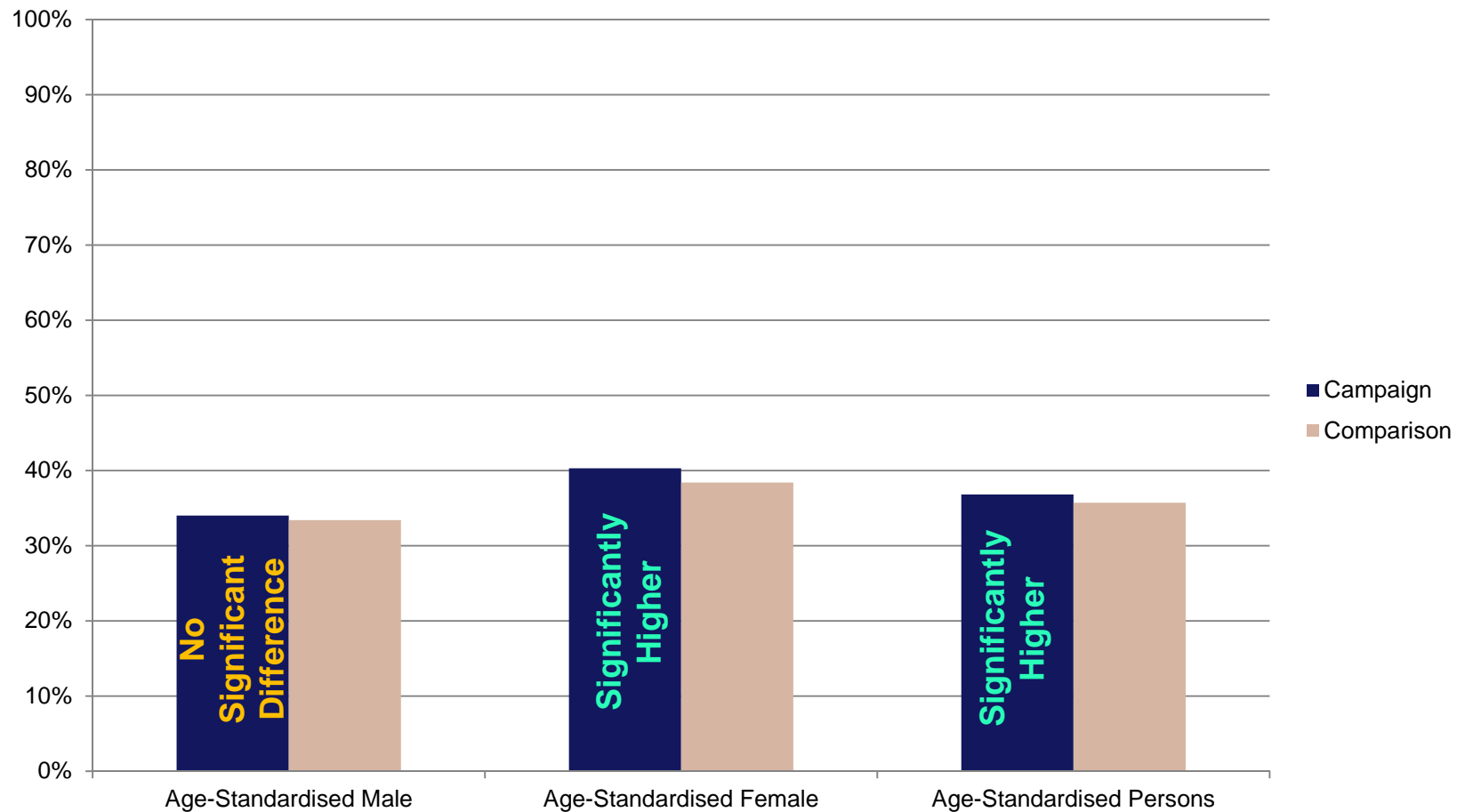
Campaigns

PHE's cancer campaigns are those branded **Be Clear on Cancer**

- Led by Public Health England working in partnership with Department of Health, NHS England and Cancer Research UK
- Decisions are based on patient data to establish populations who may benefit the most and target advertising efficiently.
- Campaigns are evaluated using patient data to establish the effectiveness of the advertising
- Even a small change in the way data is recorded may affect the significance of results studied

Campaigns

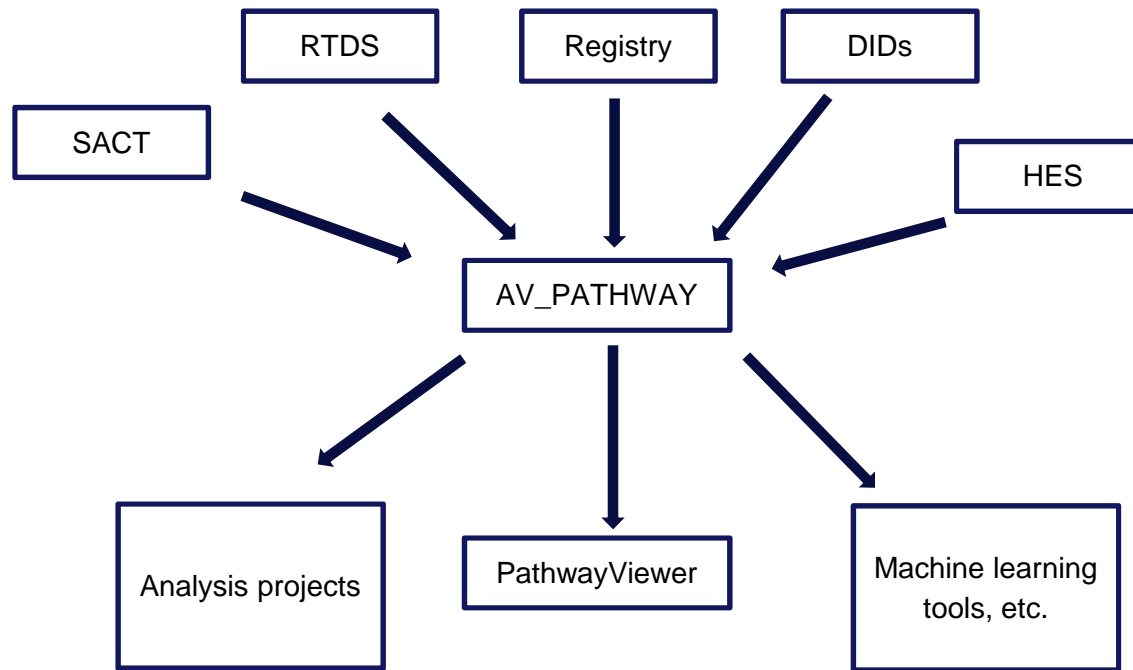
One-year relative survival of patients diagnosed with lung cancer during the 2014 national campaign (July – August) compared to the remainder of the year



Patient pathway

Representing patient pathways with
NCRAS data – current developments

AV_PATHWAY

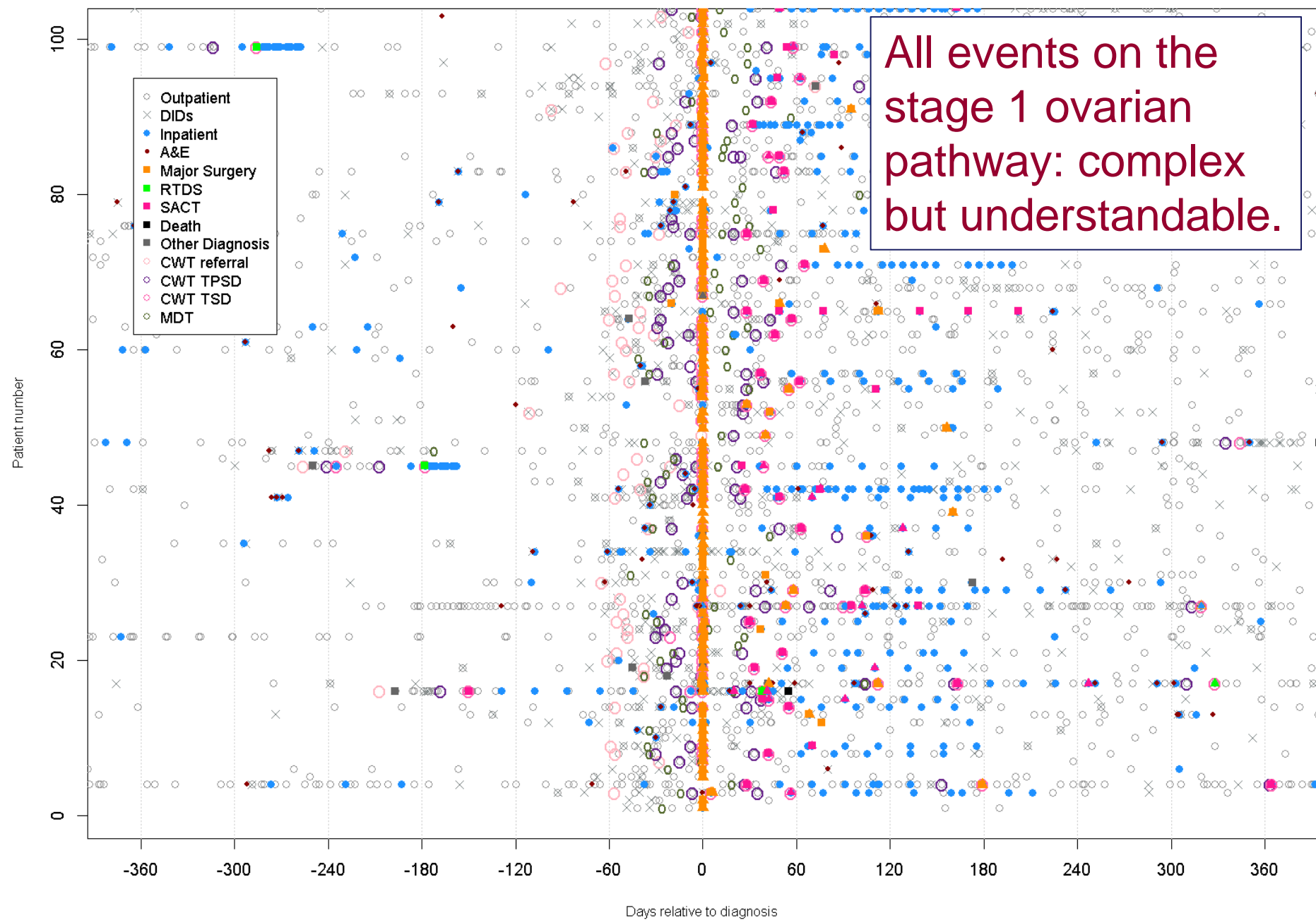


The challenge in interpreting pathway data is it's volume and complexity.

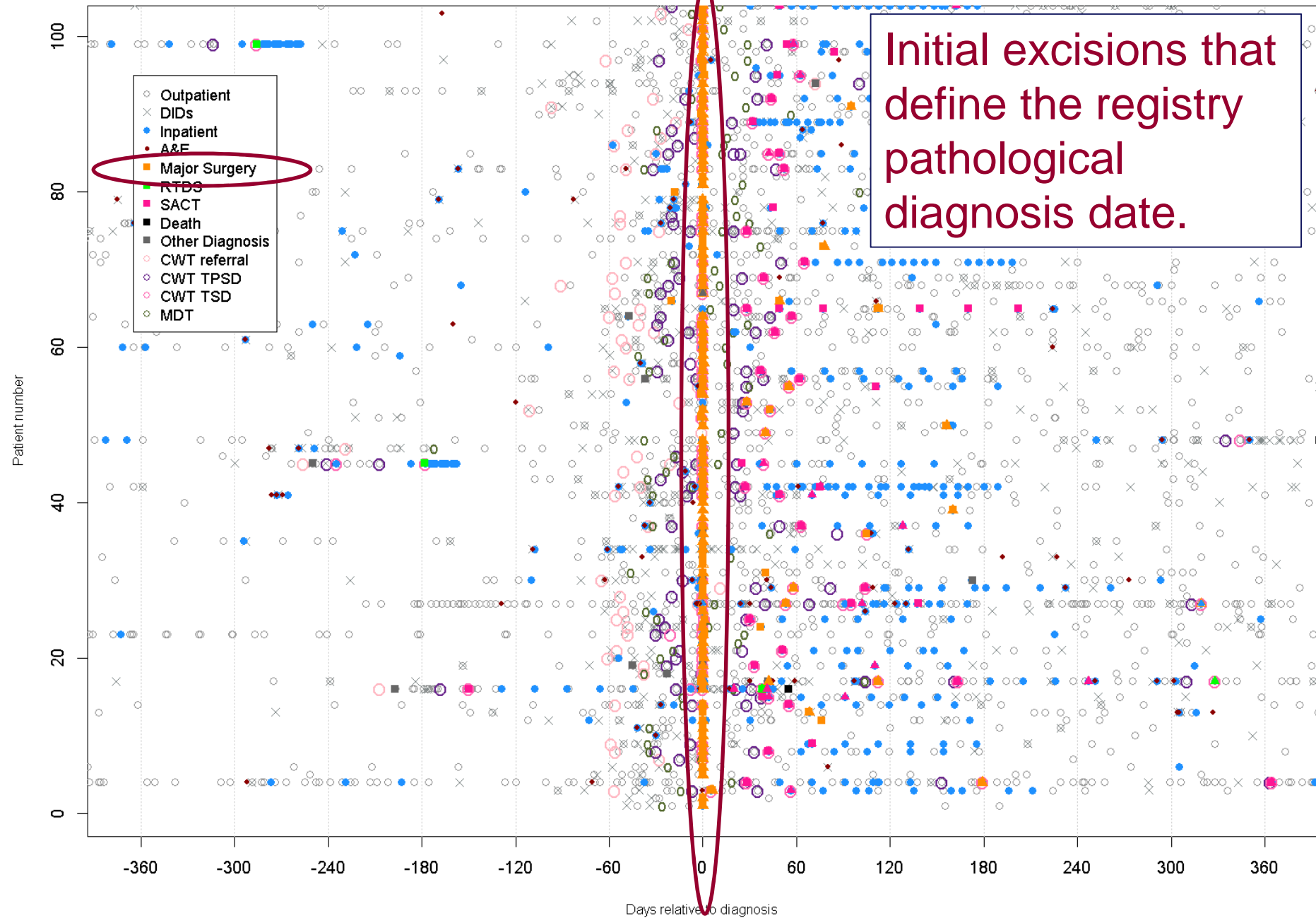
AV_PATHWAY simplifies and abstracts the data available.

PathwayViewer is a visualisation of the data at a higher level of abstraction.

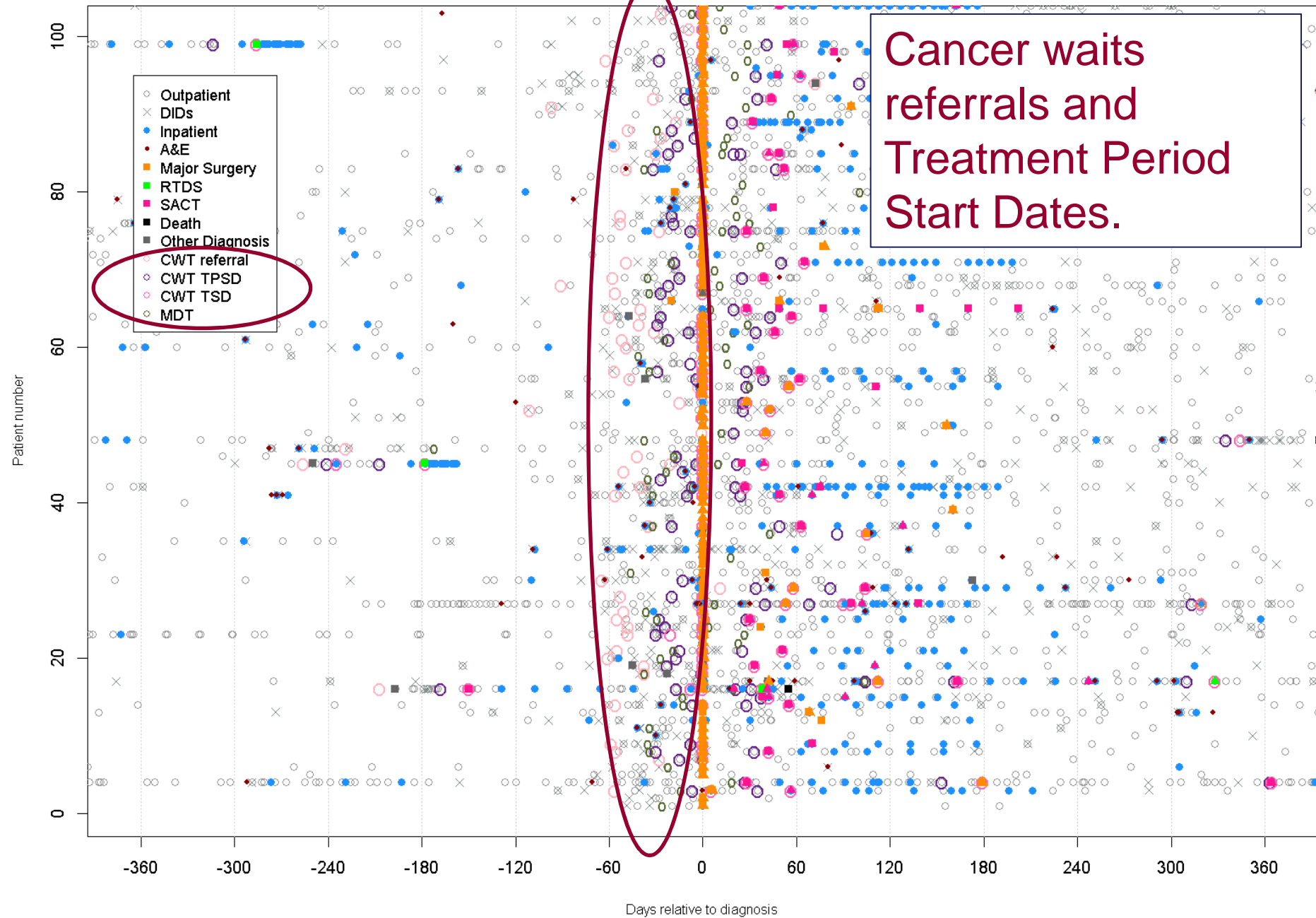
Stage 1 ovarian pathways



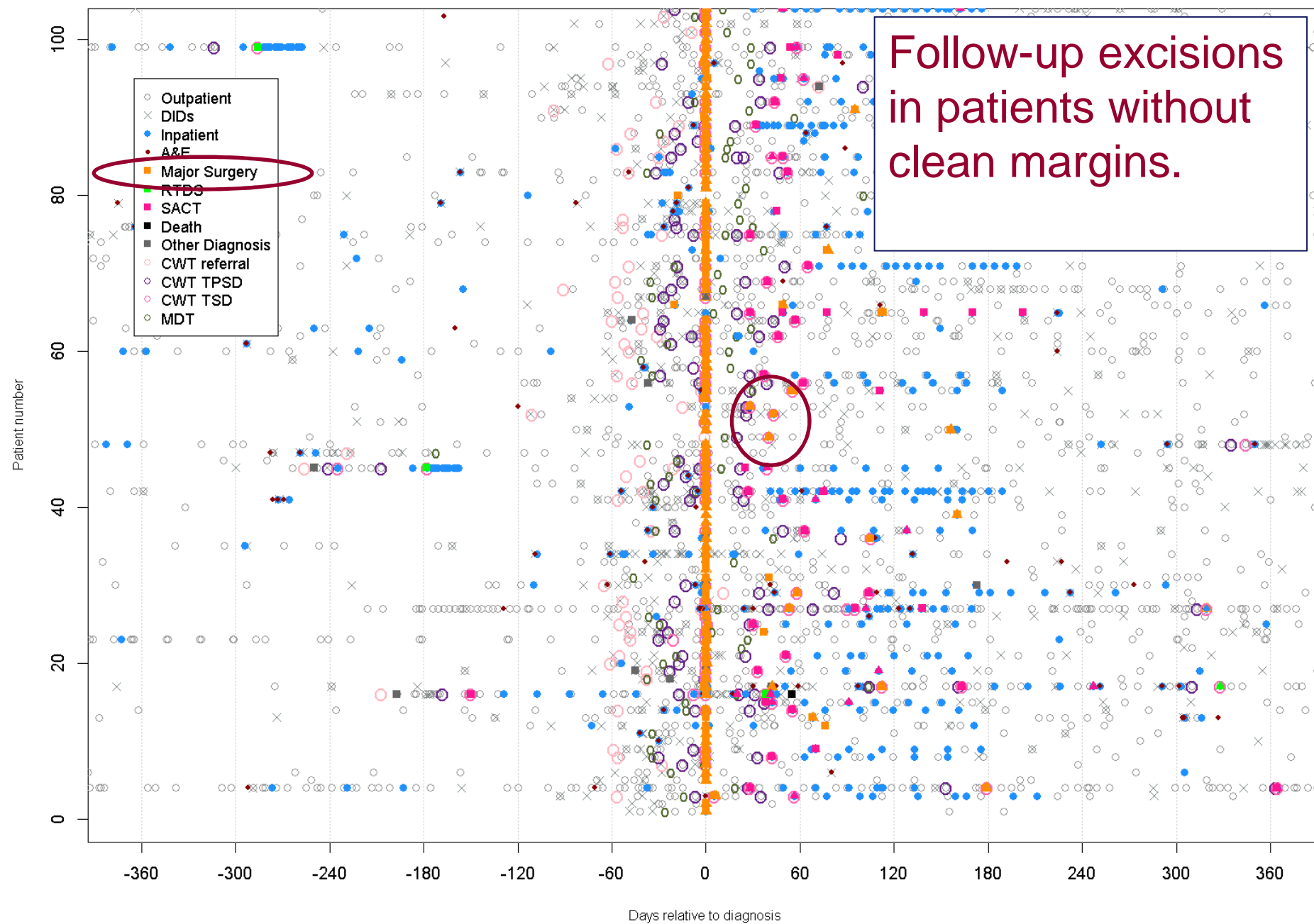
Stage 1 ovarian pathways



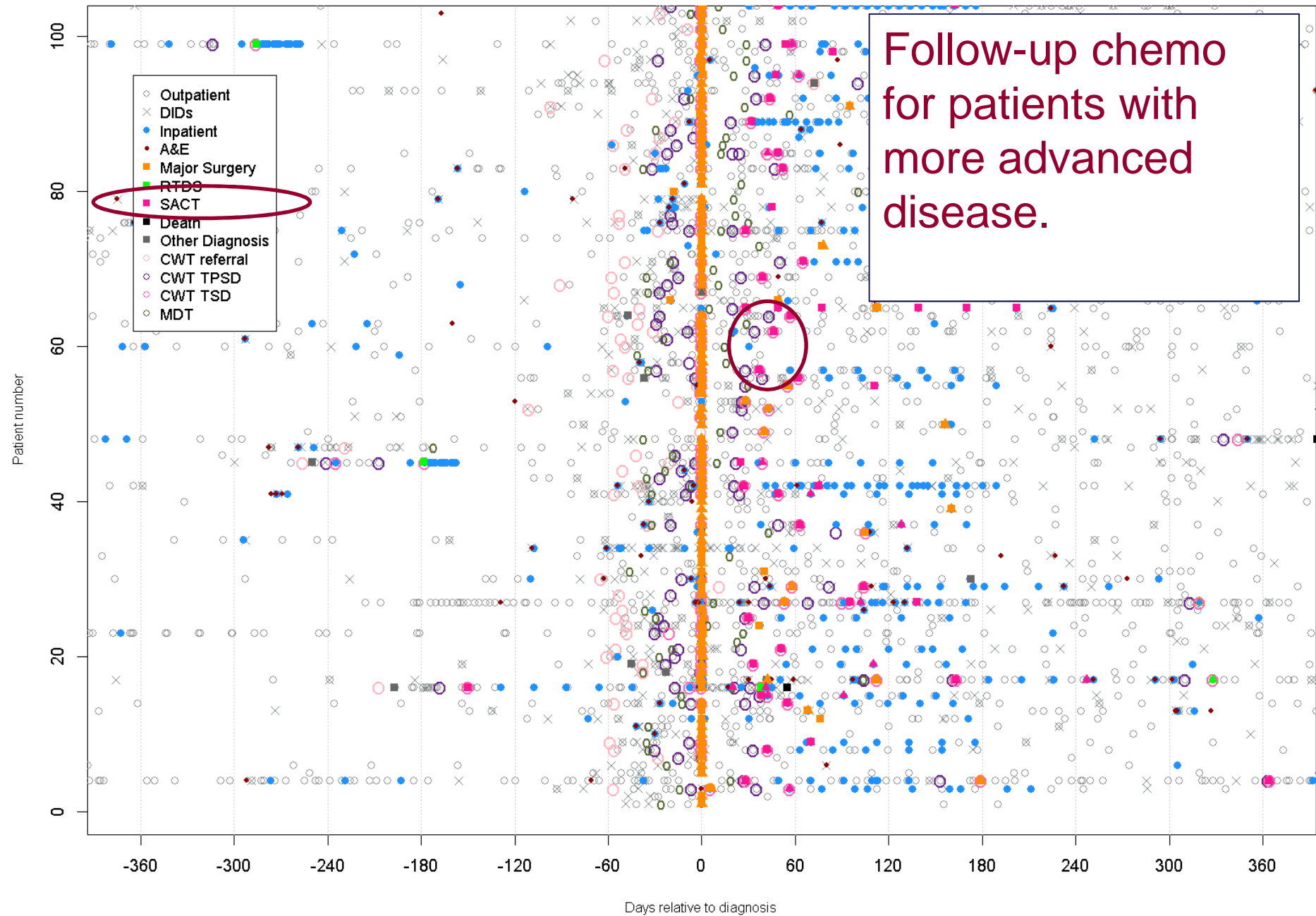
Stage 1 ovarian pathways



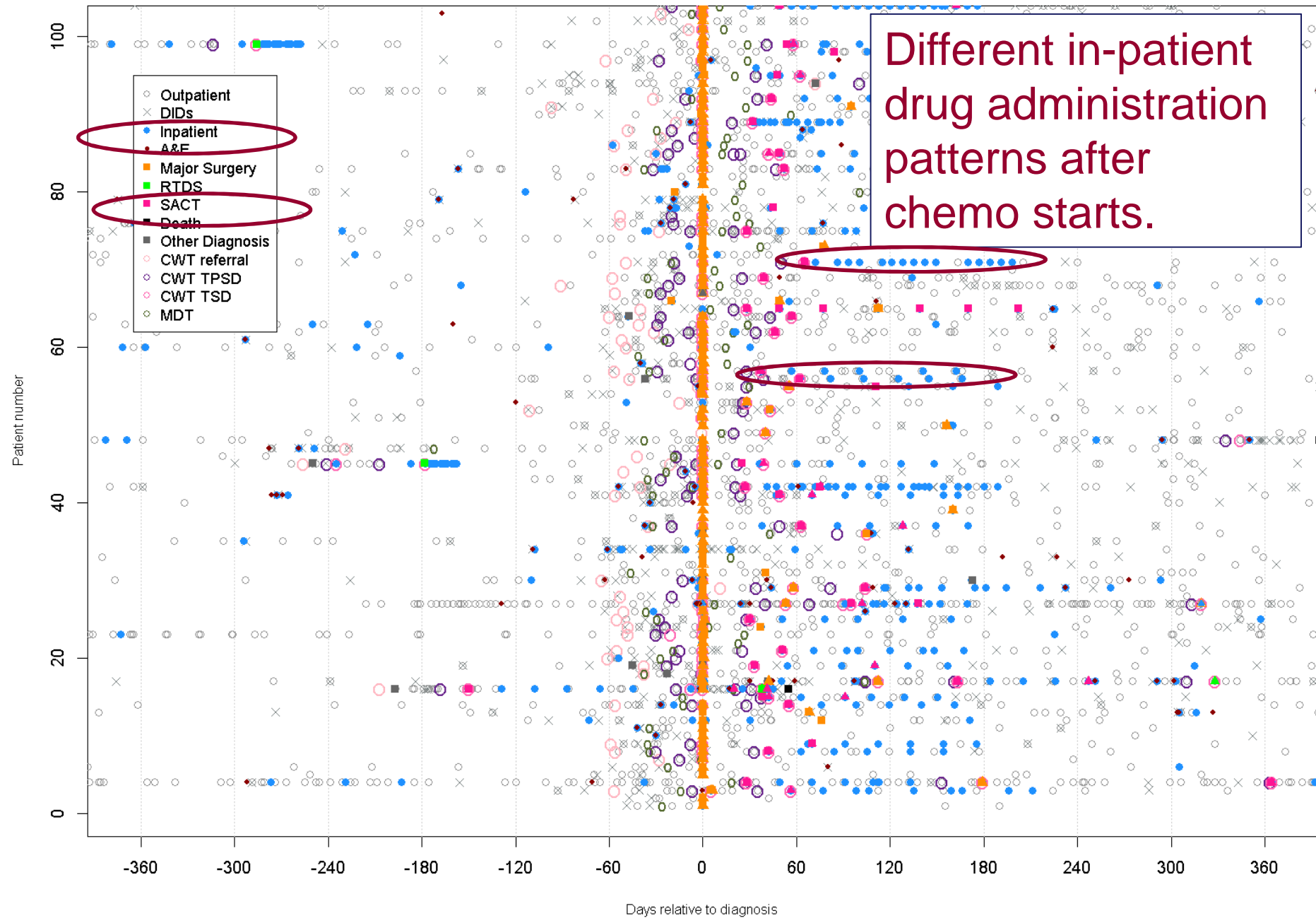
Stage 1 ovarian pathways



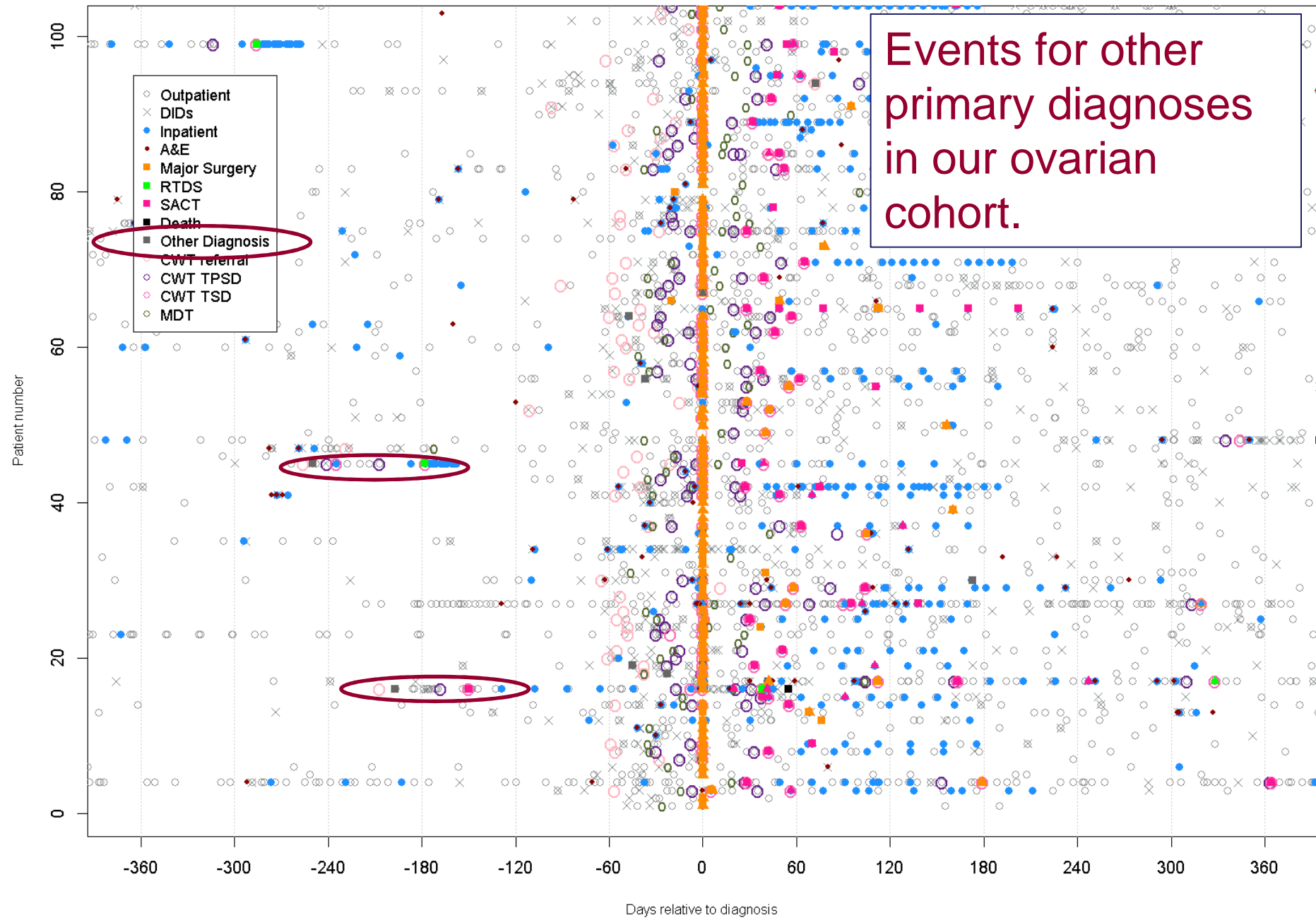
Stage 1 ovarian pathways



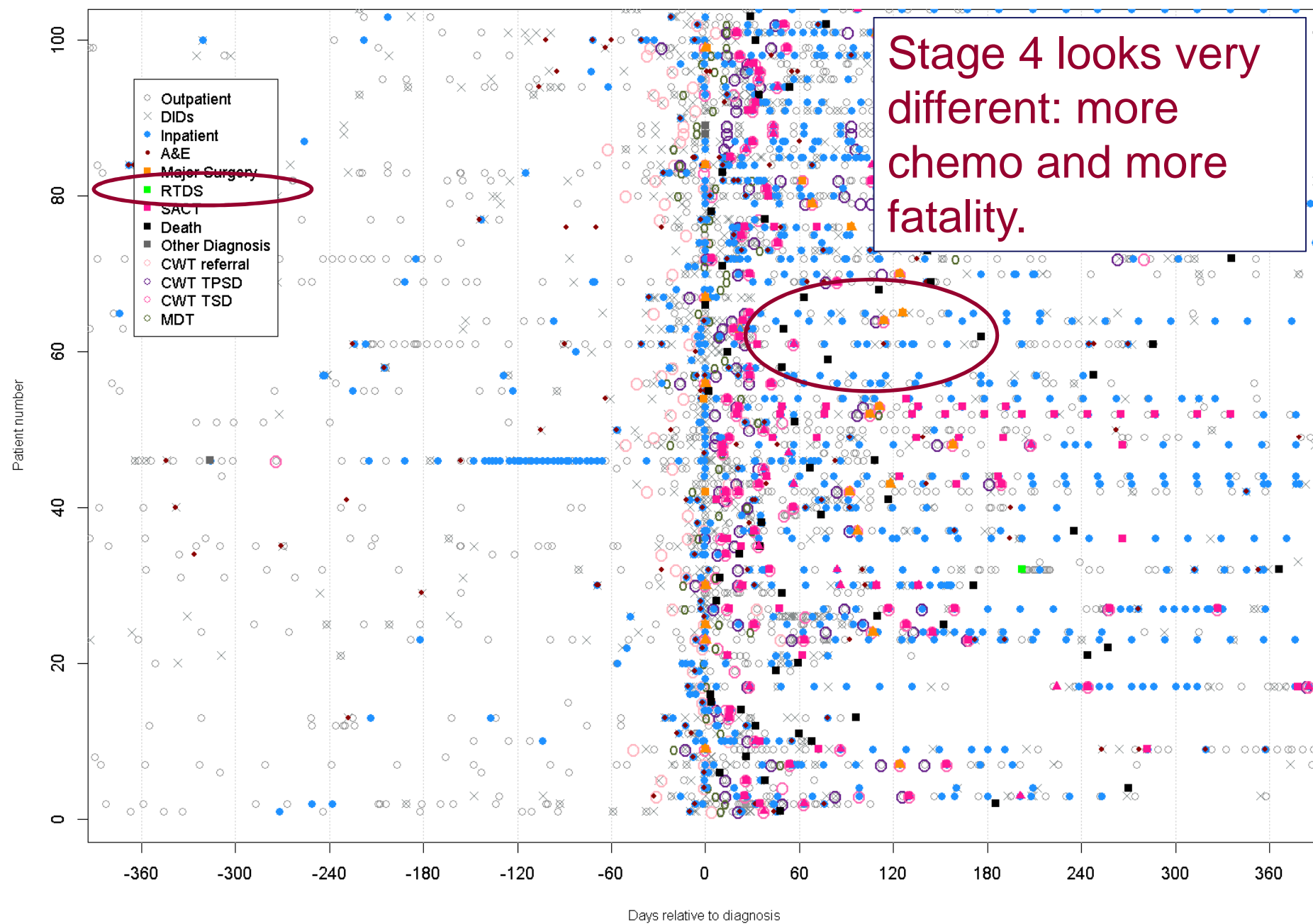
Stage 1 ovarian pathways



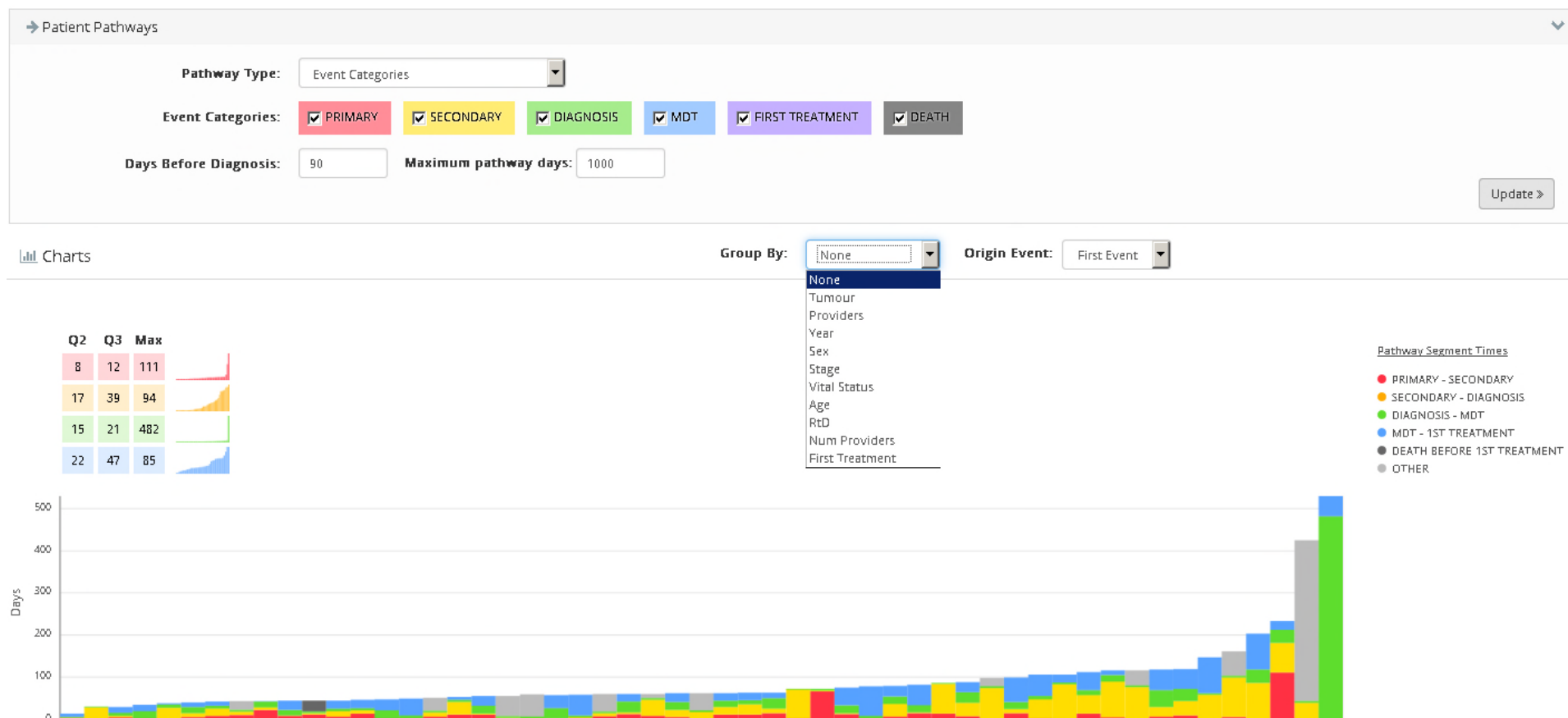
Stage 1 ovarian pathways



Ovarian stage 4 patient pathways



PathwayViewer (in development)



Pathway from first contact for patient cohort...

PathwayViewer (in development)

→ Patient Pathways

Pathway Type: Event Categories

Event Categories: ☒ PRIMARY ☒ SECONDARY ☒ DIAGNOSIS ☒ MDT ☒ FIRST TREATMENT ☒ DEATH

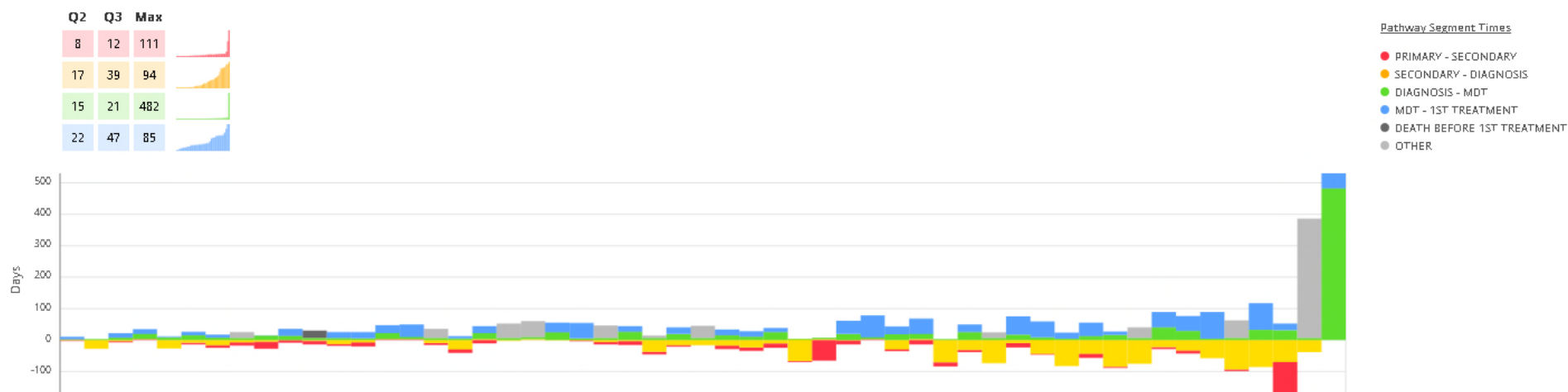
Days Before Diagnosis: 90 Maximum pathway days: 1000

Update >

Charts

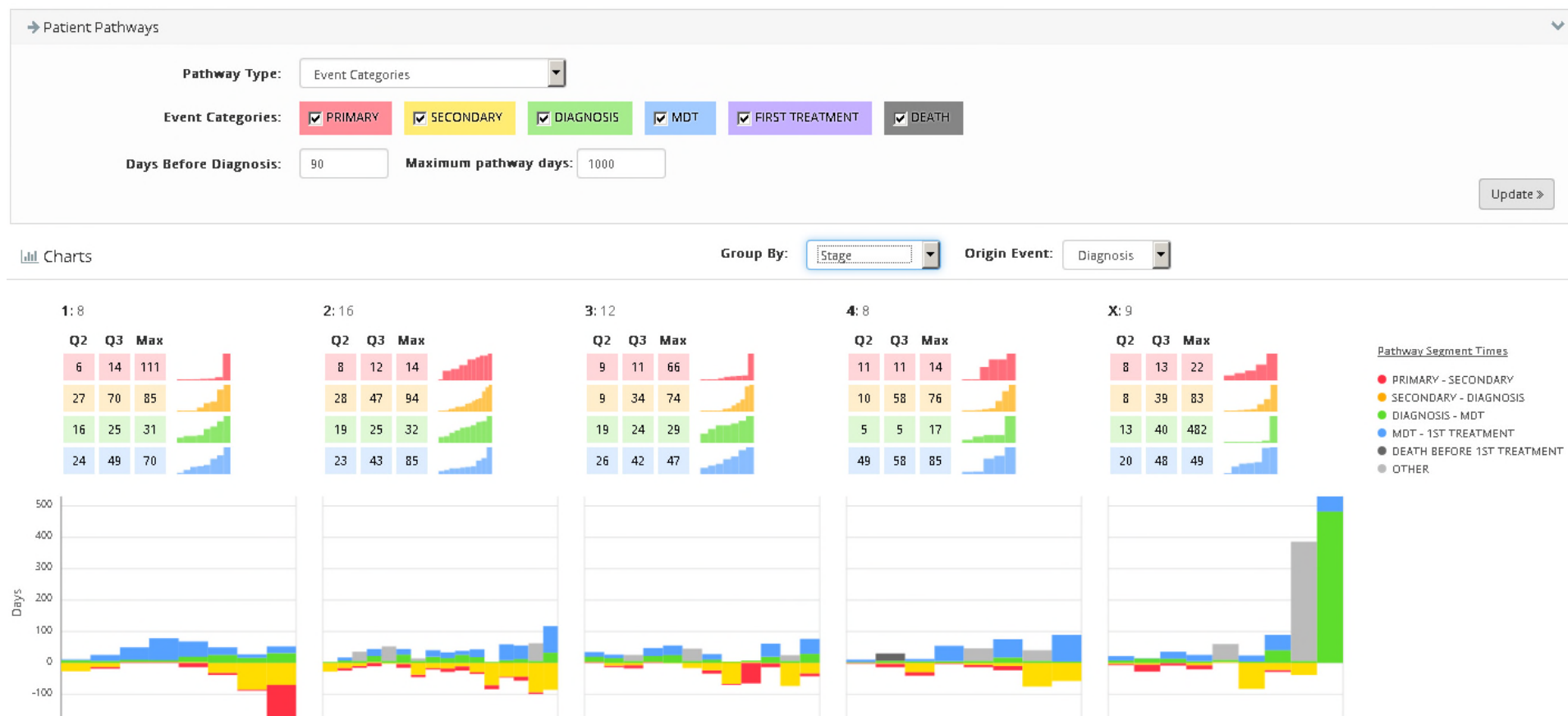
Group By: None

Origin Event: Diagnosis



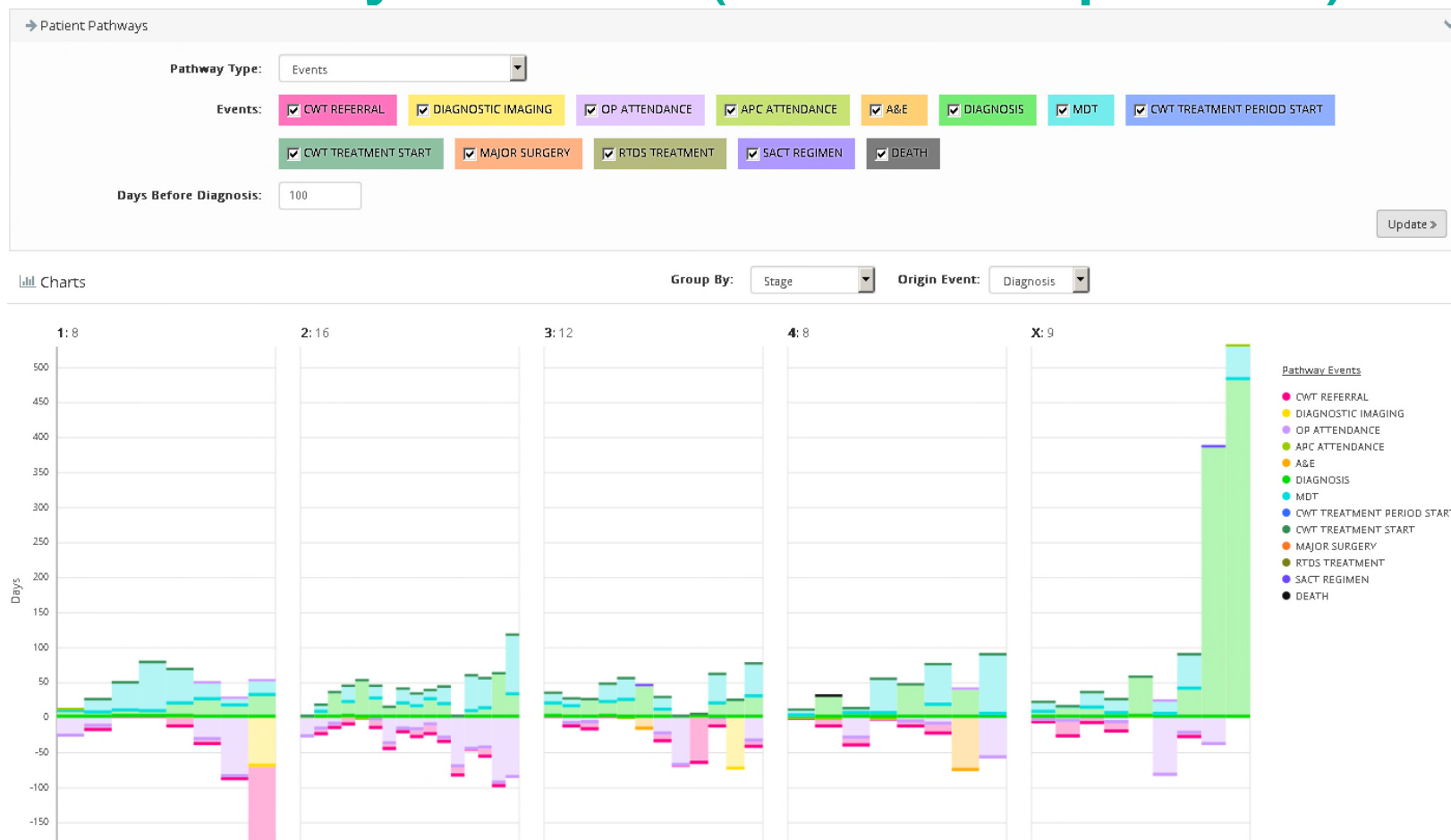
Or from diagnosis...

PathwayViewer (in development)



Group by sex, tumour type, stage at diagnosis, Trust etc.

PathwayViewer (in development)



More detailed event breakdowns, and drill down to individual patient detail (not shown)

Clinical Service Quality Measures

Clinical Service Quality Measures

Clinical Services Quality Measures are a series of metrics that are intended to **allow for direct comparisons between services** provided by hospitals; “Ofsted for the NHS”.

CSQMs for stroke are already available on MyNHS.

The quality and completeness of the data feeds directly into the results.

Data sources include COSD, HES, CPES, SACT, RTDS etc.










The first cancer CSQMs will cover breast, colorectal and lung cancers.

Metrics are chosen in consultation with clinicians and patient groups.

All groups chose to have a metric on that reported on data quality and completeness.

What will they look like?

Clinical Service Quality Measures

Sort by distance	Overall Stroke Care Rating (Adjusted)	Number of patients admitted in one quarter	Change in performance from previous quarter	Team Key Indicator Level	Proportion of stroke cases included in SSNAP (Case ascertainment)	Completeness and timeliness of data (Audit compliance)	Name of stroke service
 							
<u>Leeds General Infirmary</u> Great George Street, Leeds, West Yorkshire, LS1 3EX Tel: 0113 243 2799 0.1 miles away <input type="checkbox"/> Add to shortlist	C	322	Improvement	C	A	A	Leeds General Infirmary
<u>Pinderfields Hospital</u> Pinderfields Hospital, Aberford Road, Wakefield, West Yorkshire, WF1 4DG Tel: 0844 8118110 7.9 miles away <input type="checkbox"/> Add to shortlist	B	265	Improvement	B	A	A	Pinderfields Hospital
<u>Bradford Royal Infirmary</u> Duckworth Lane, Bradford, West Yorkshire, BD9 6RJ Tel: 01274 542200 10.1 miles away <input type="checkbox"/> Add to shortlist	D	155	No change	D	A	D	Bradford Royal Infirmary

Thank you