



Public Health
England

Protecting and improving the nation's health

Projecting the size and make-up of the drug treatment population in England by 2020

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Background

- These projections are part of a larger report assessing expectations of the drug treatment system in England, published in early 2017¹
- Requirement for this report to predict what the treatment population would look like in future – both in terms of overall numbers and demographics
- National Drug Treatment Monitoring System (NDTMS) data was used to project forward to the end of 2020, based on a back series of monthly data from December 2005 to approx. August 2016
- Projections of this kind are subject to considerable inherent uncertainty

1. Public Health England (2017), An evidence review of the outcomes that can be expected of drug misuse treatment in England, <http://www.nta.nhs.uk/uploads/phe-evidence-review-of-drug-treatment-outcomes.pdf>

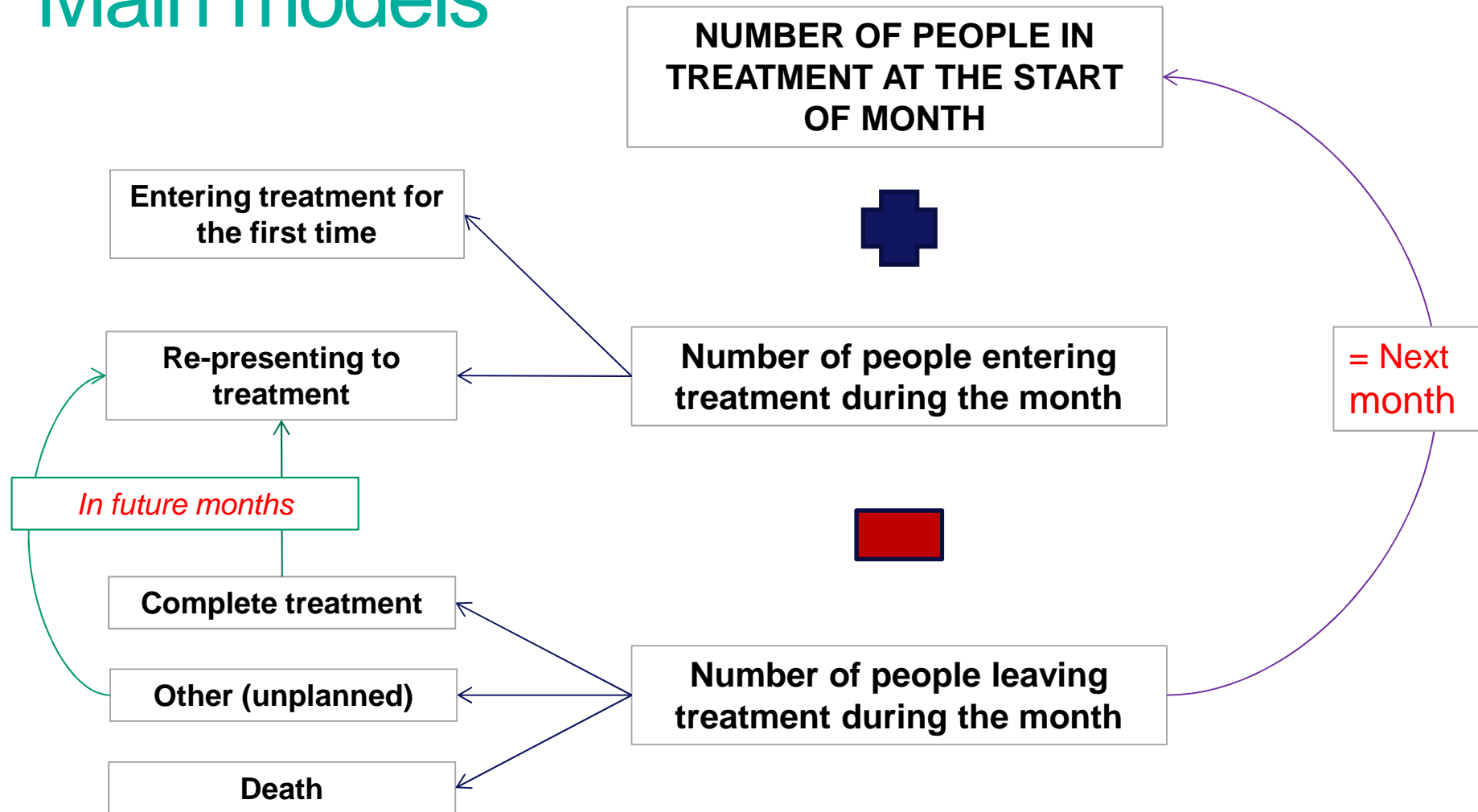
Methodology - overall

- Analyses were carried out for the following cohorts, for both opiate and non-opiate users:
 - Projected numbers entering and leaving treatment (main models)
 - Proportional breakdown by age
 - Proportional breakdown by duration of use, or 'using career' (opiate models only)
 - Proportional breakdown by previous attempts at treatment (opiate models only)
- These analyses were carried out separately from one another – although there are clearly likely interactions (e.g. age and using career) it was anticipated that cross-referencing would lead to greater uncertainty
- Therefore predictions of numbers in treatment + prediction of proportion by age \neq numbers in treatment by age

Methodology - caveats

- There were a number of caveats around these analyses in respect of what will happen in future years:
 - There are no large external factors which will impact treatment demand, e.g. shortage of heroin.
 - Incidence and prevalence are broadly similar to recent years
 - Treatment system capacity is not a factor – i.e. the system can meet the demand
 - Re-presentations to treatment can be inferred from preceding treatment exits, (i.e. not considerably biased by external factors)
 - Rates and speed of re-presentation to treatment are reasonably stable across the whole period
 - Seasonal variation will even out

Main models

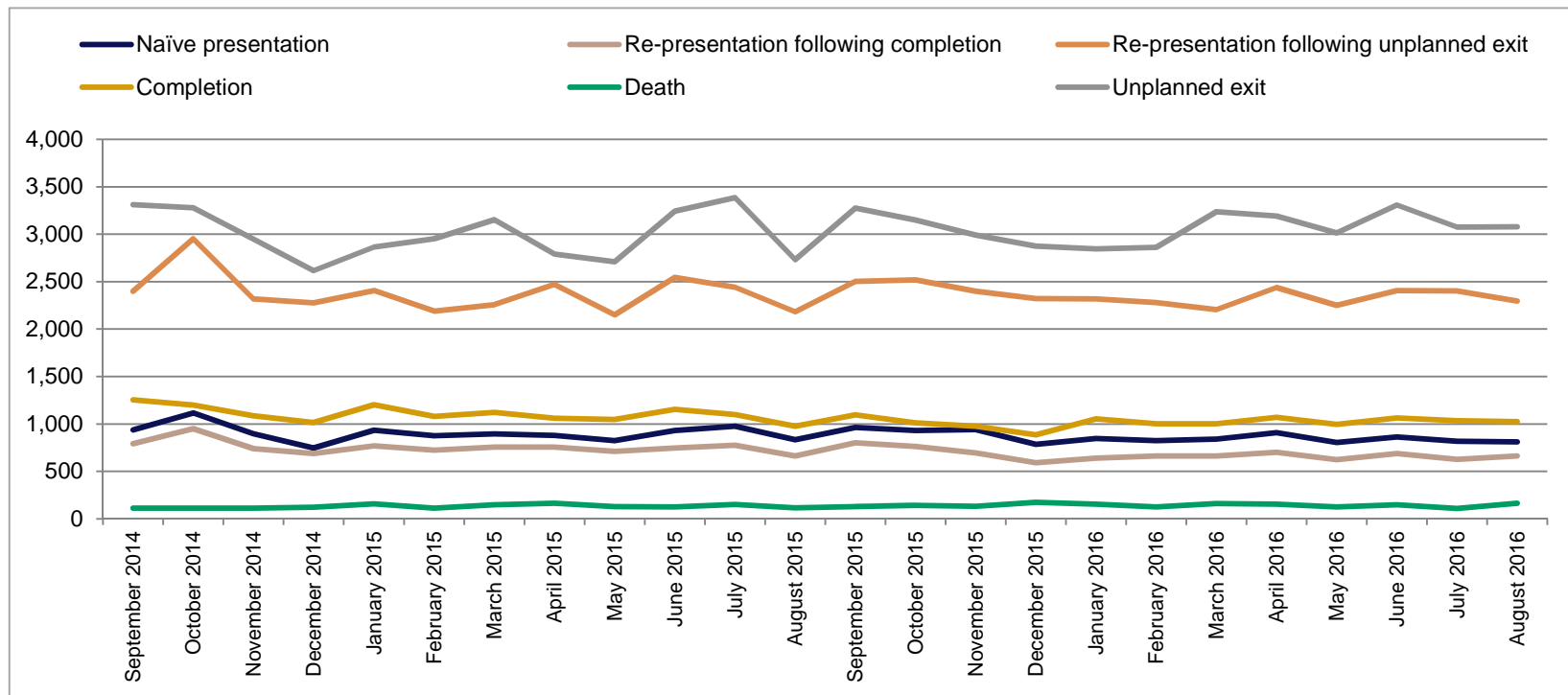


Chosen models

- Projections of the number entering treatment for the first time (treatment naïve)
- Projections of the rates (and therefore numbers) leaving treatment were broken down by the following exit reasons:
 - Treatment completion
 - Death
 - Other (unplanned) exit
- Inference of the number re-presenting to treatment following a) treatment completion and b) other (unplanned)
- Ultimately data from January 2011 onwards was used in the main models for all the projections

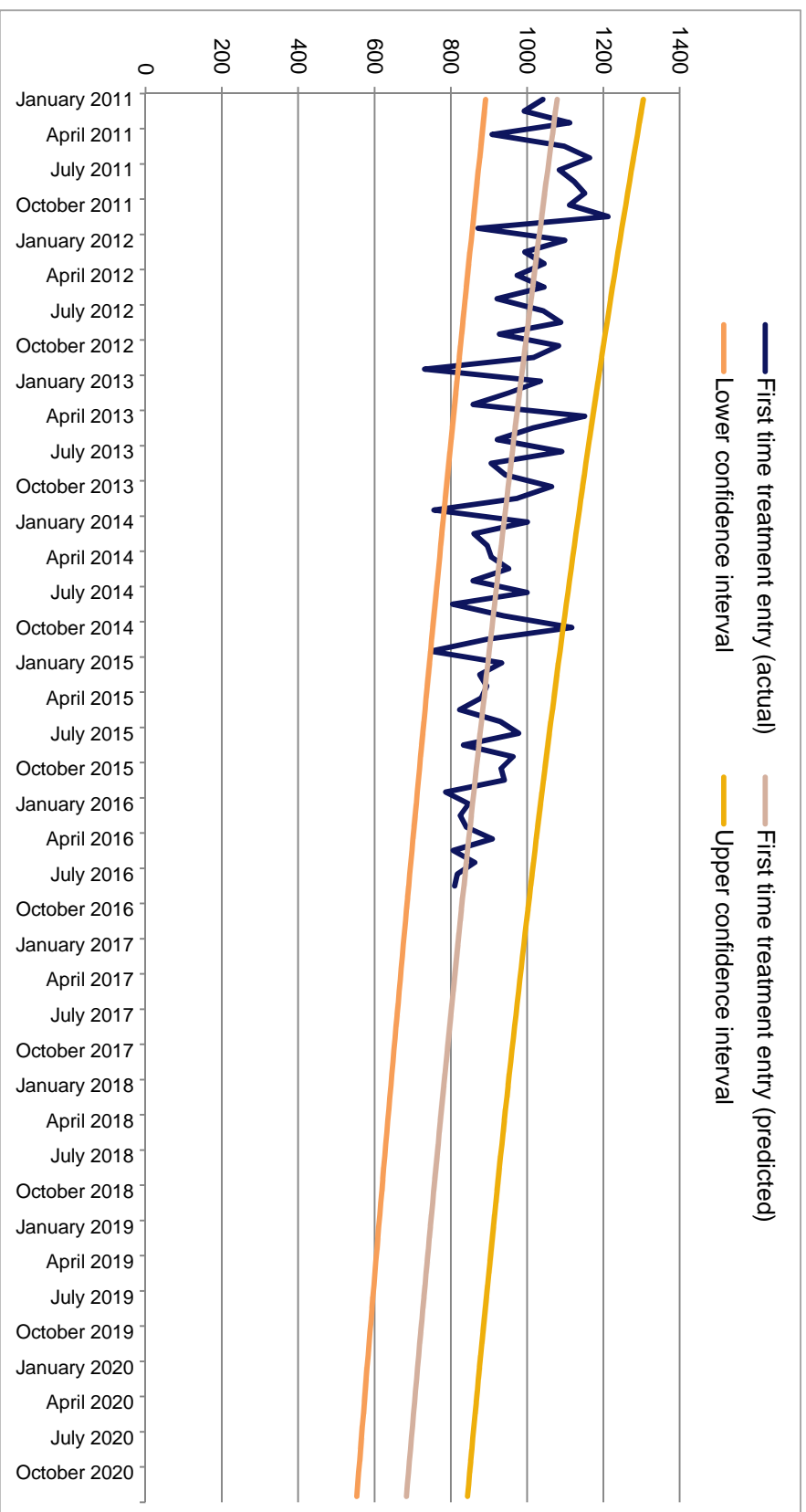
Actual numbers entering and leaving treatment - opiates

The number of opiate users leaving exceeded the number entering treatment in the latest two years. Most exits were unplanned (72%) and most of those entering treatment had most recently had an unplanned exit (60%)



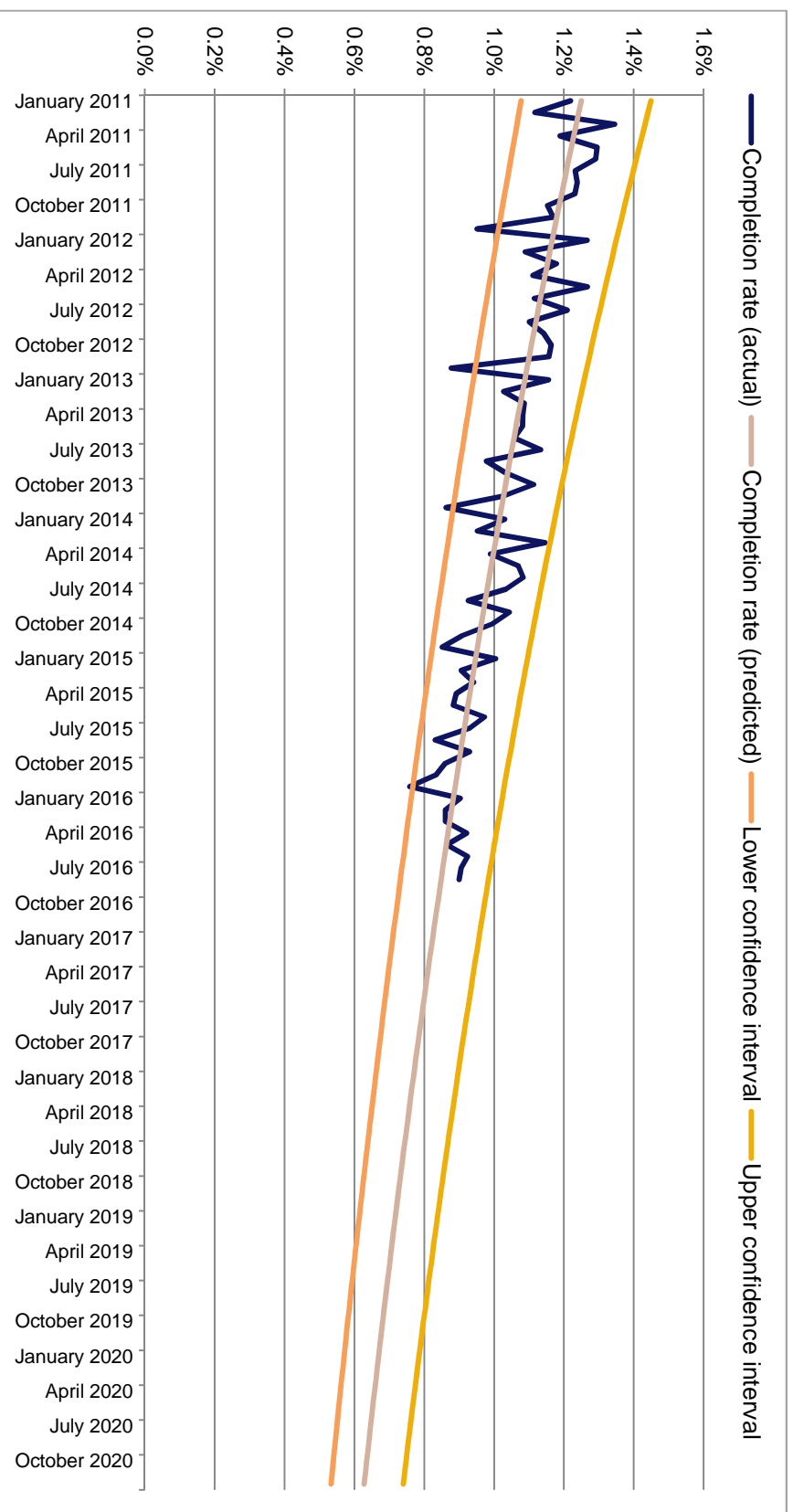
Projected first time treatment entrants - opiates

Naïve presentations for opiates are projected to fall to ~684 per month (CIs: 554 to 844) from an average of 862 a month in the 12 months to August 2016



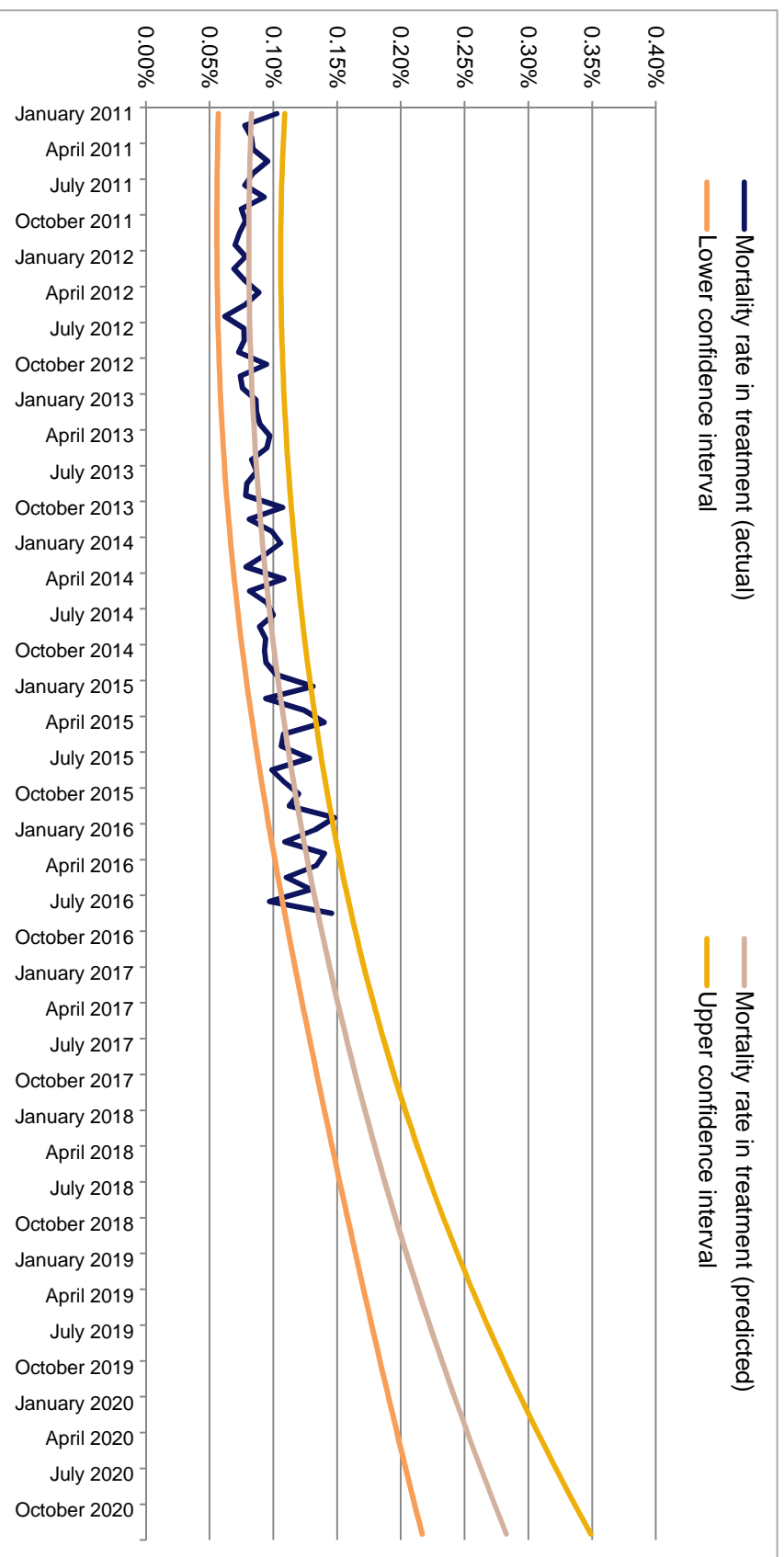
Projected completions - opiates

The completion rate is projected to fall to ~0.6% (95% CIs: 0.5% to 0.7%), from a monthly average of 0.9% in the twelve months to August 2016



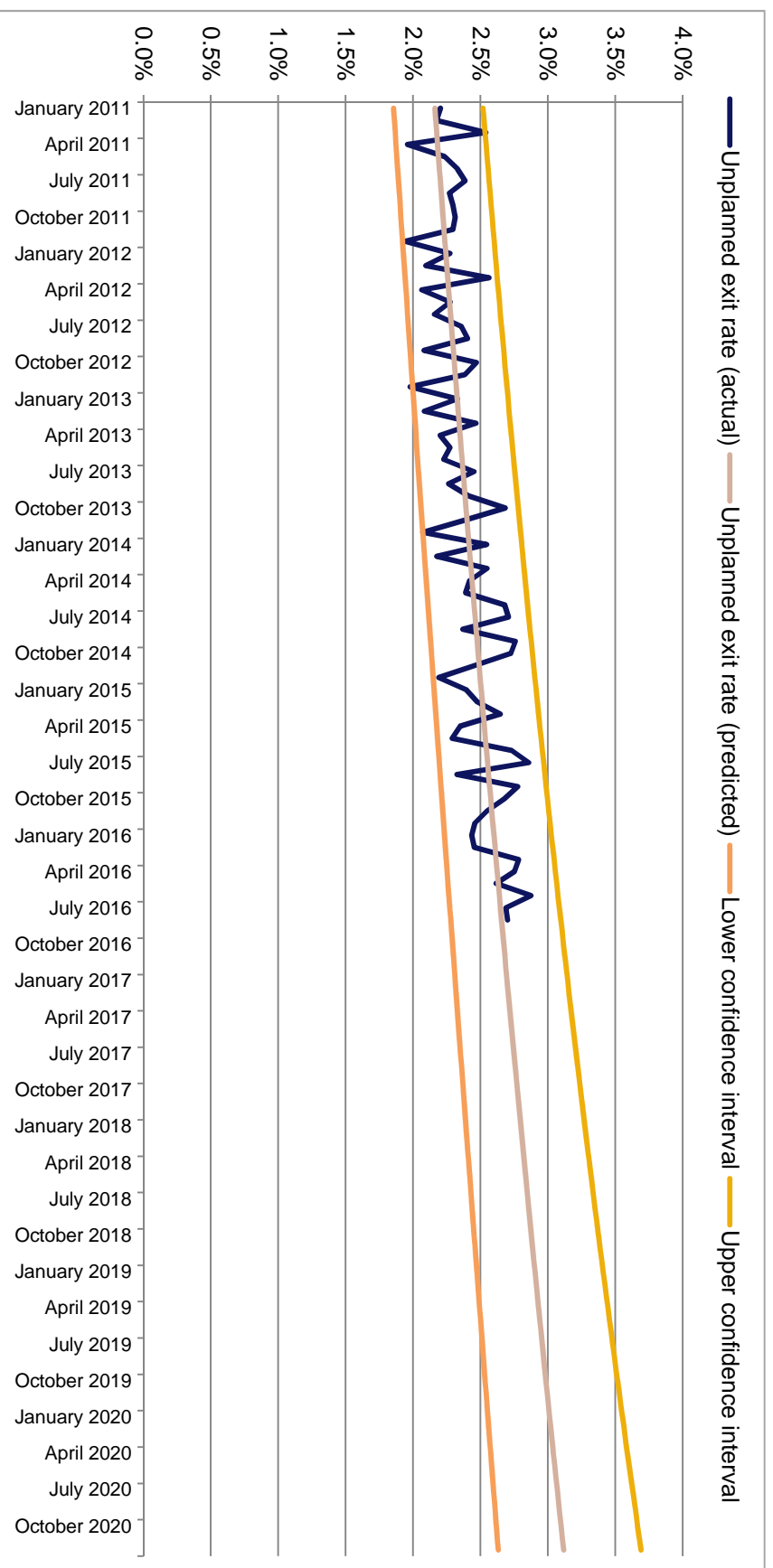
Projected deaths - opiates

The death rate among opiate users is projected to rise to 0.3% (95% CIs: 0.2% to 0.3%) from a monthly average of 0.1% in the twelve months to August 2016



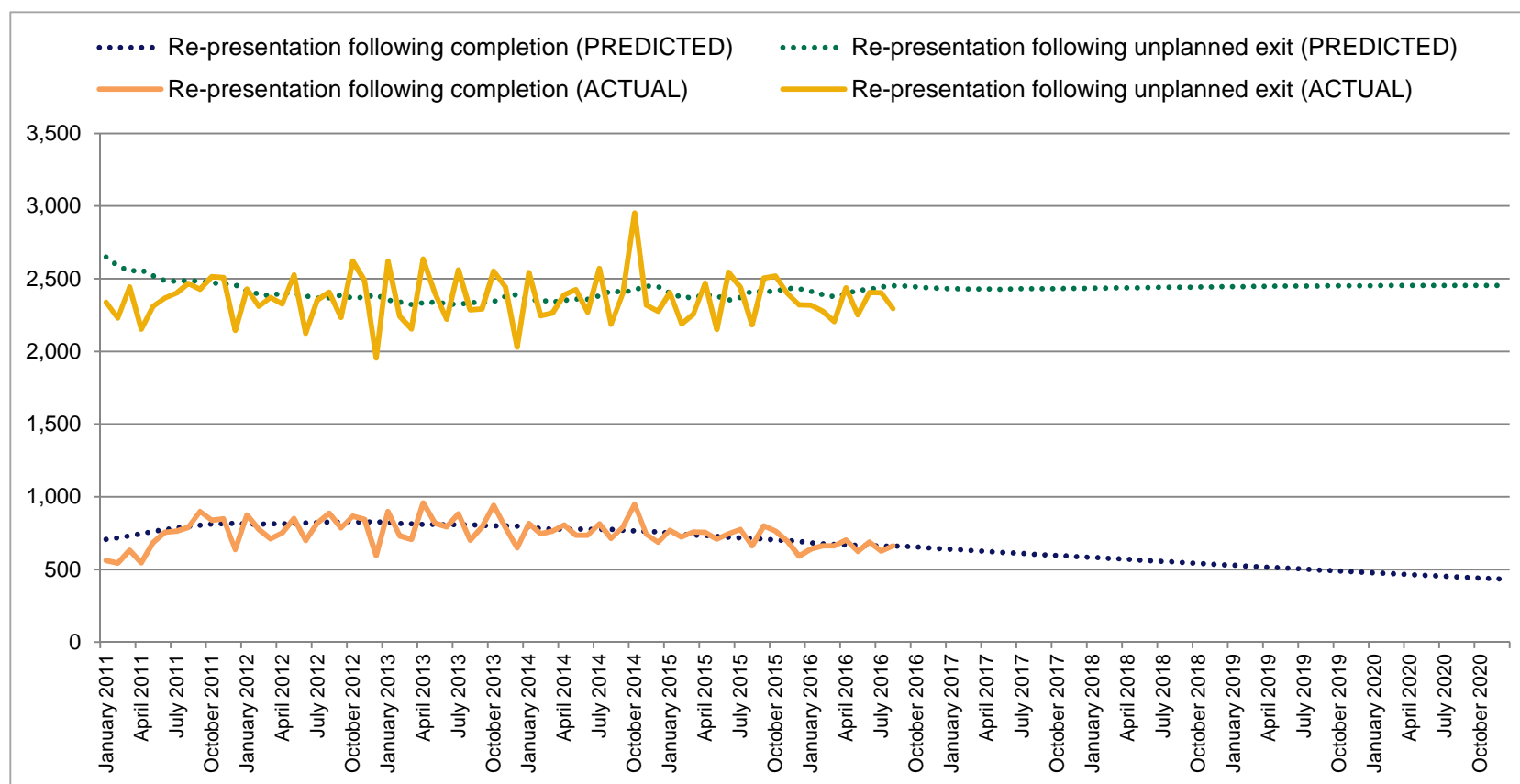
Projected unplanned exits - opiates

The unplanned exit rate is projected to rise to 3.1% (95% CIs 2.6 to 3.7%), from a monthly average of 2.6% in the twelve months to August 2016





Inferred re-presentations - opiates

Accordingly, re-presentations following completions are projected to decrease while re-presentations following unplanned exits are projected to be stable



Summary of main models - opiates

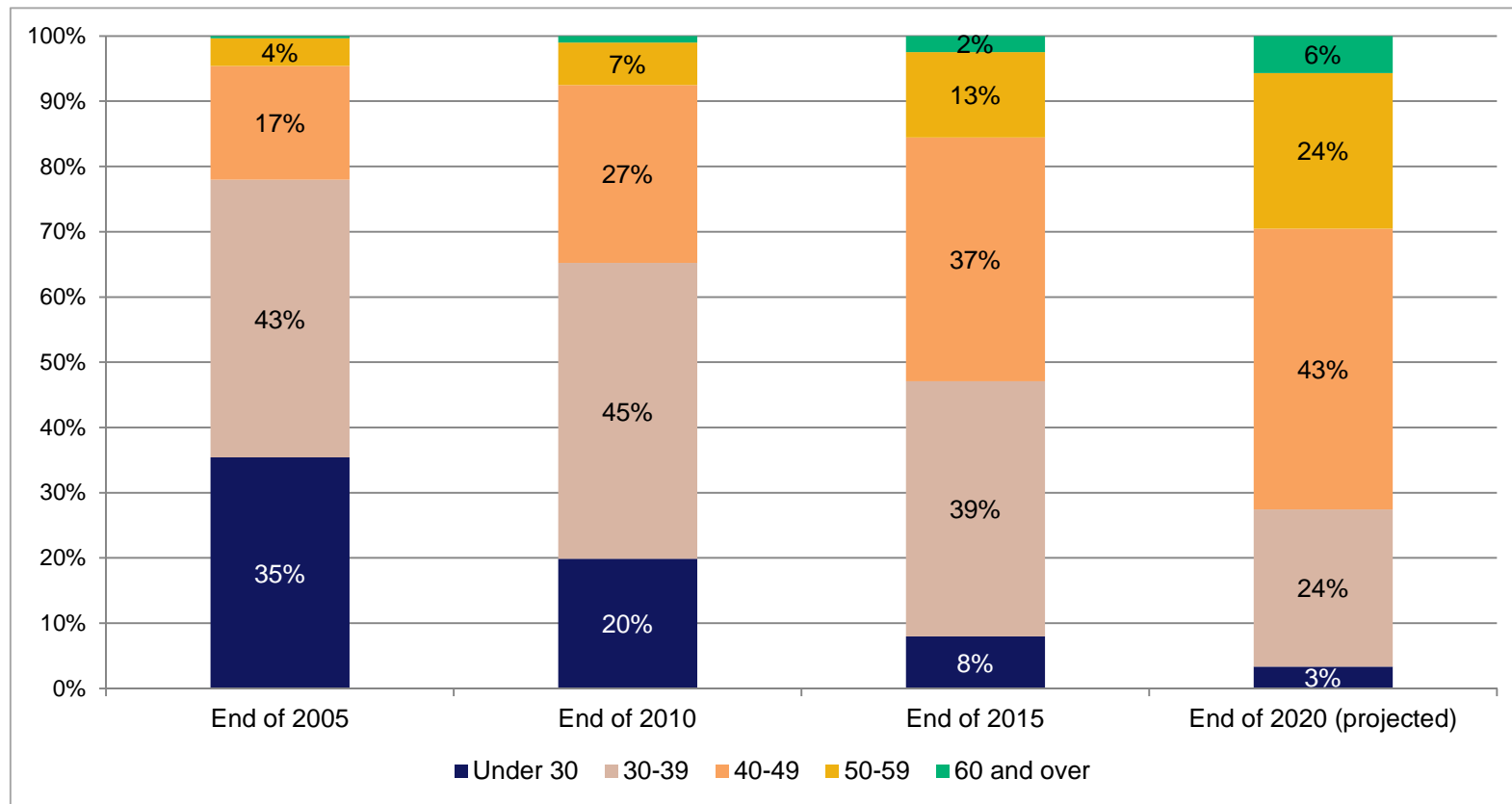
- In summary:
 - First time entrants, treatment completions and re-presentations following treatment completions 
 - Mortality in treatment, other unplanned exits and re-presentations following unplanned exits 
- When these are compiled to make a net total, this suggests a continued declining trend in the size of the opiate population in treatment
- Remember: this assumes no large new incidence or external change
- The models were tested for sensitivity on the latest two years for which full data were available, and predicted a similar decline to that which occurred (modelled -5% vs. actual -6%)

Projections by age, using career and previous unplanned exits

- These were separate from the main models and forecast the proportional breakdown of those in treatment
- The model by age projected figures for five year birth cohorts, which were then translated back to ages
- Similarly, the model by using career projected figures according to five year uptake cohorts (i.e. when the person first used), which were then translated back into duration of use
- Previous unplanned exits were projected based on the cumulative distribution and then disaggregated

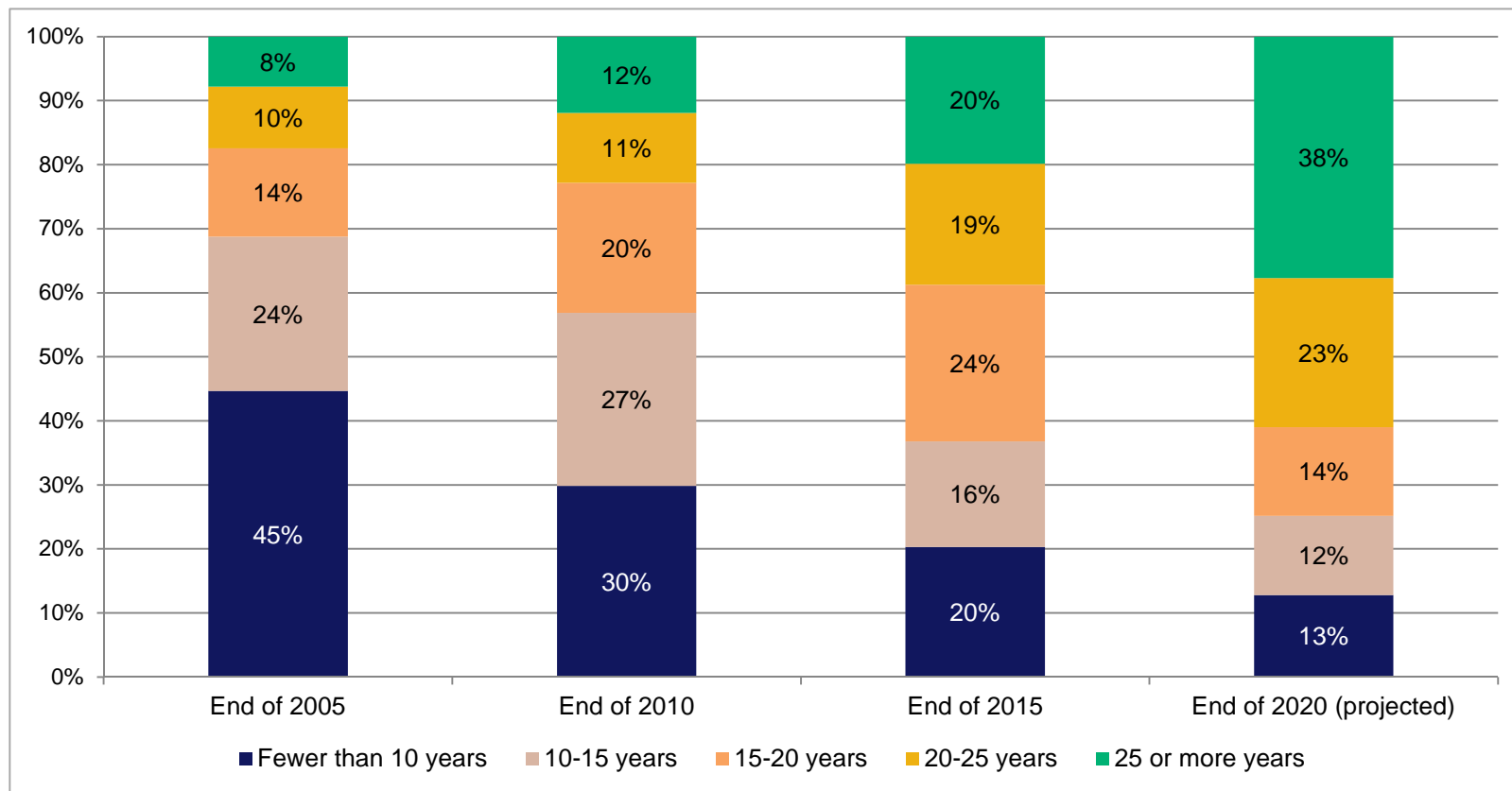
Projections by age - opiates

We projected that by the end of 2020, 30% of opiate users in treatment will be aged 40 or over, compared to 15% at the end of 2015



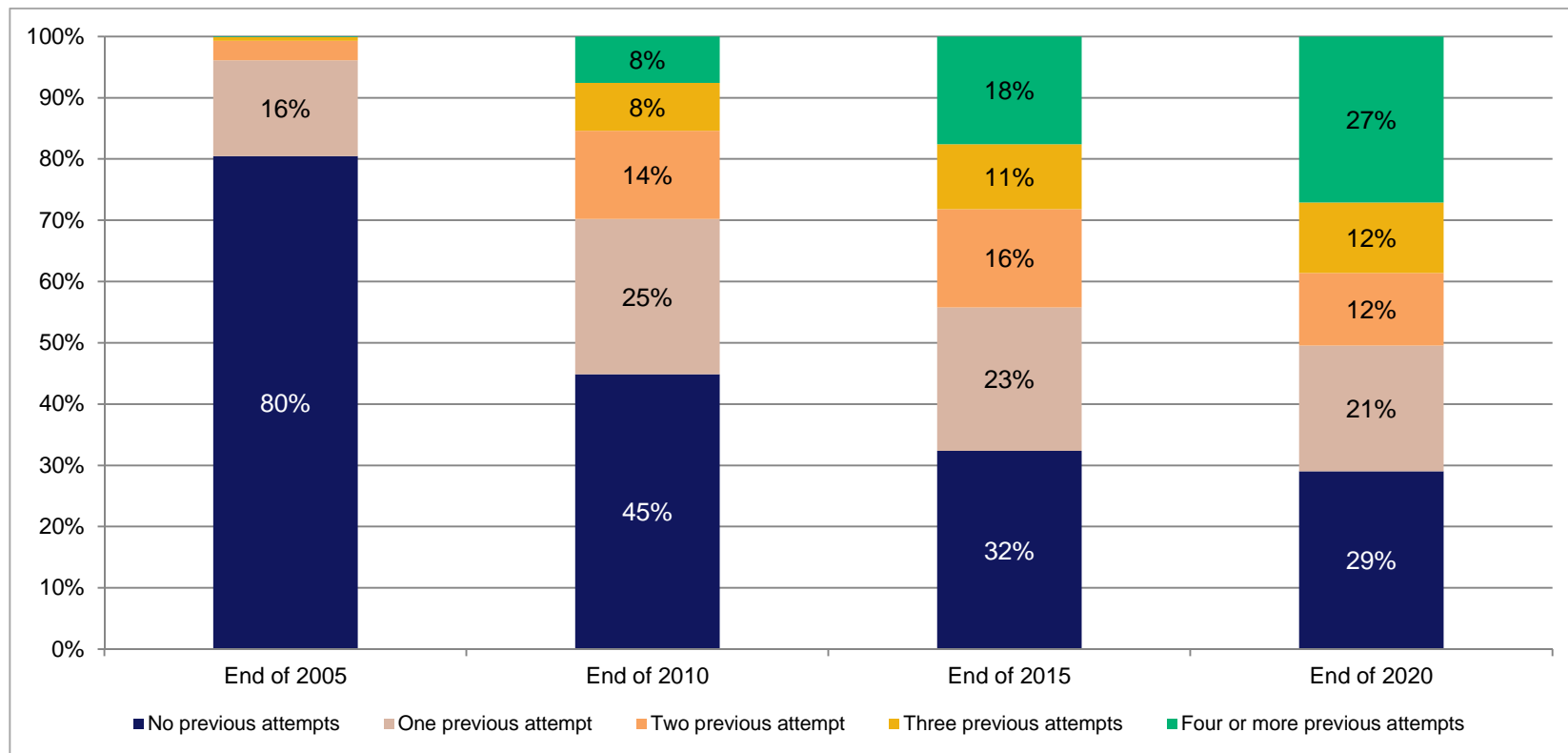
Projections by using career - opiates

We projected that at the end of 2020 >60% of opiate users in treatment will have been using for more than 20 years, compared to <40% at the end of 2015



Projections by previous treatment - opiates

We projected that by the end of 2020 over a quarter will have had four or more previous treatment journeys and over half will have had at least two. This compares to 18% and 35% at the end of 2015.

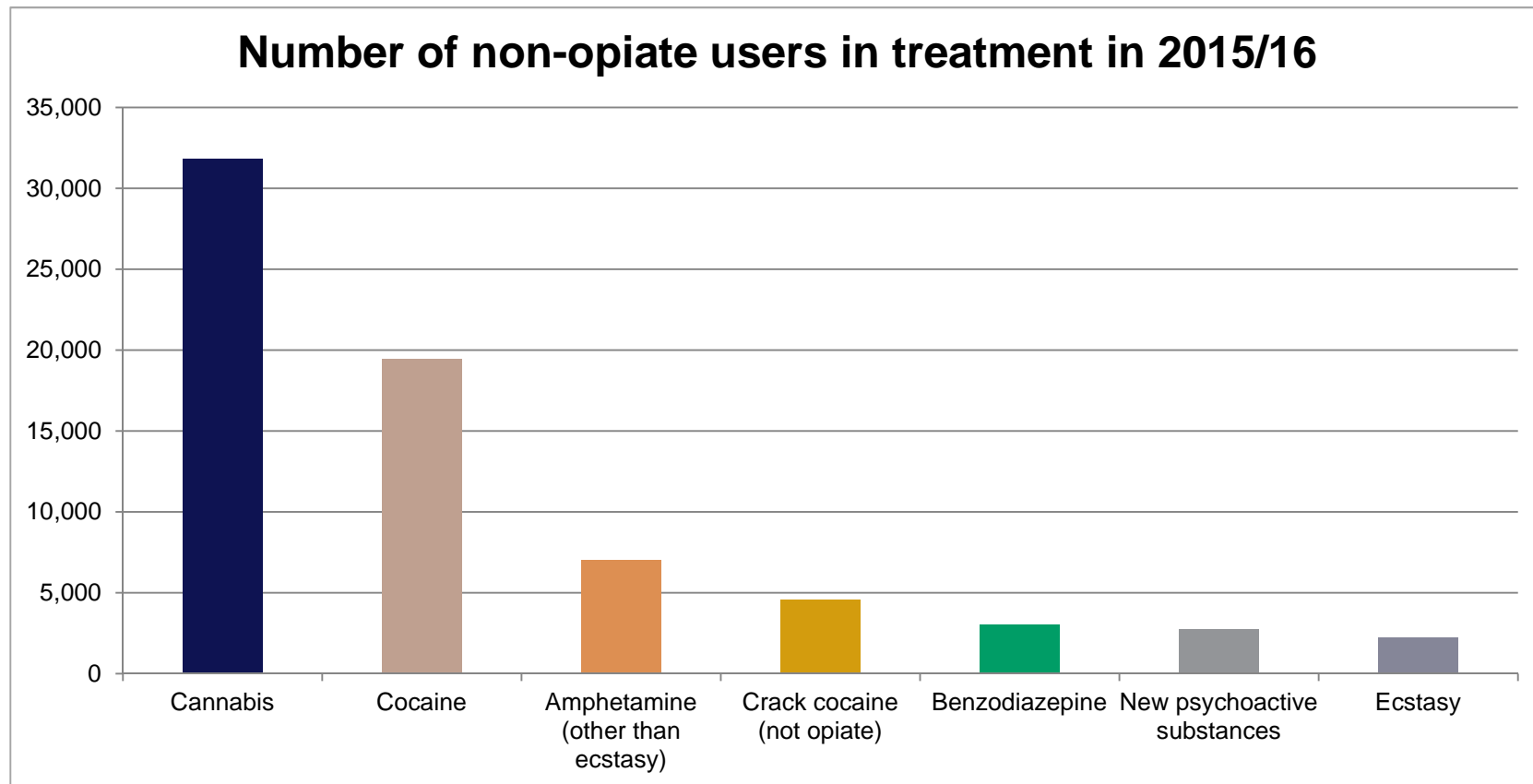


Summary of other models

- The models by age, using career and previous treatment indicate that the opiate treatment population by 2020 should be expected to be:
 - Older
 - Have been using for very long periods
 - Have had more previous failed attempts in treatment
- If correct, these trends in the profile of opiate users in treatment will have significant implications for their health and mortality risks and the drug treatment system will need to respond a range of long term health conditions
- Again, all these findings are contingent on incidence of opiate use remaining low – it is likely that a new opiate-using cohort would be younger

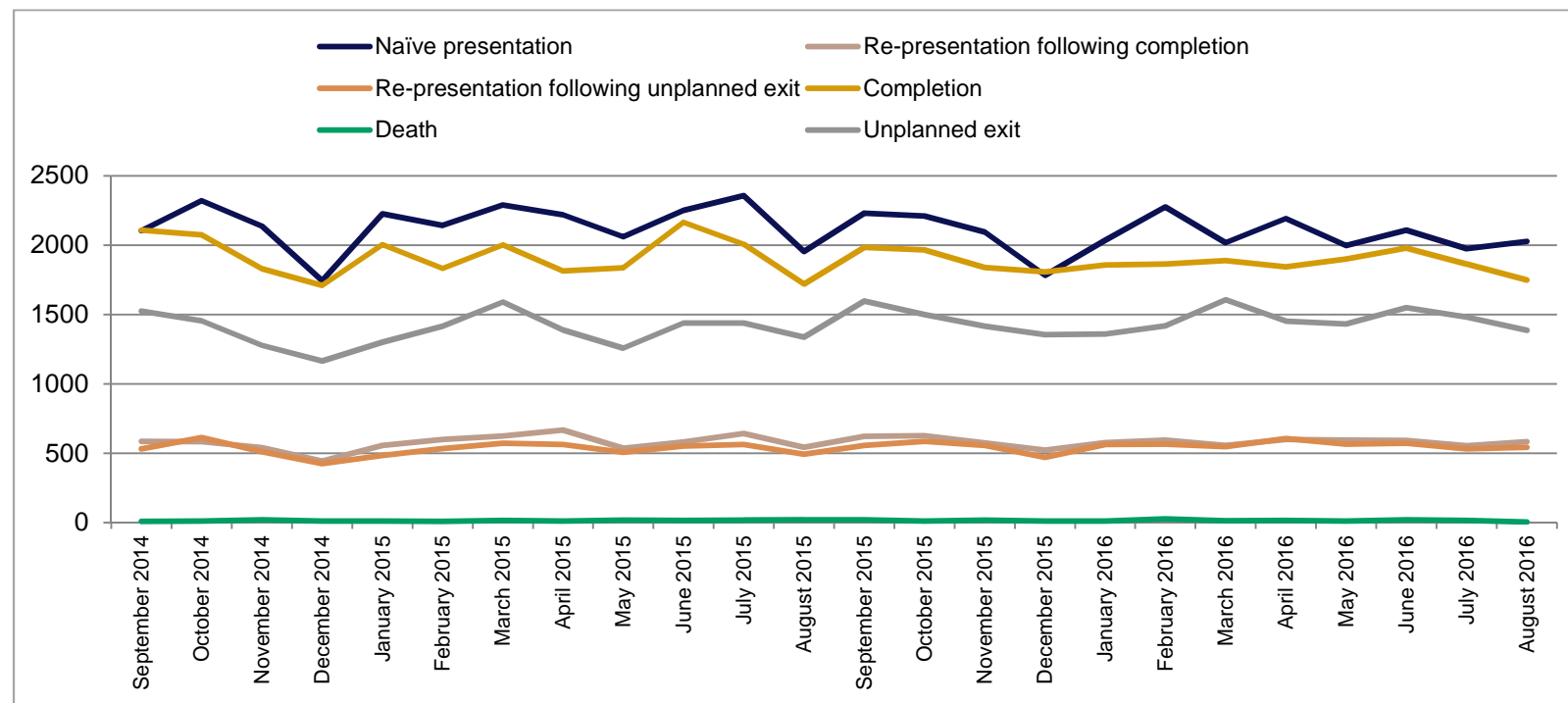
Non-opiate population

A majority of non-opiate users cite cannabis as a problem drug; powder cocaine is next most common (NB excludes those cited alongside opiates)





Actual numbers entering and leaving treatment – non-opiates

The number of non-opiate users remained broadly similar in the latest two years – unlike opiate users, the majority of those presenting were first time treatment entrants (63%) and the majority of exits were completions (57%)

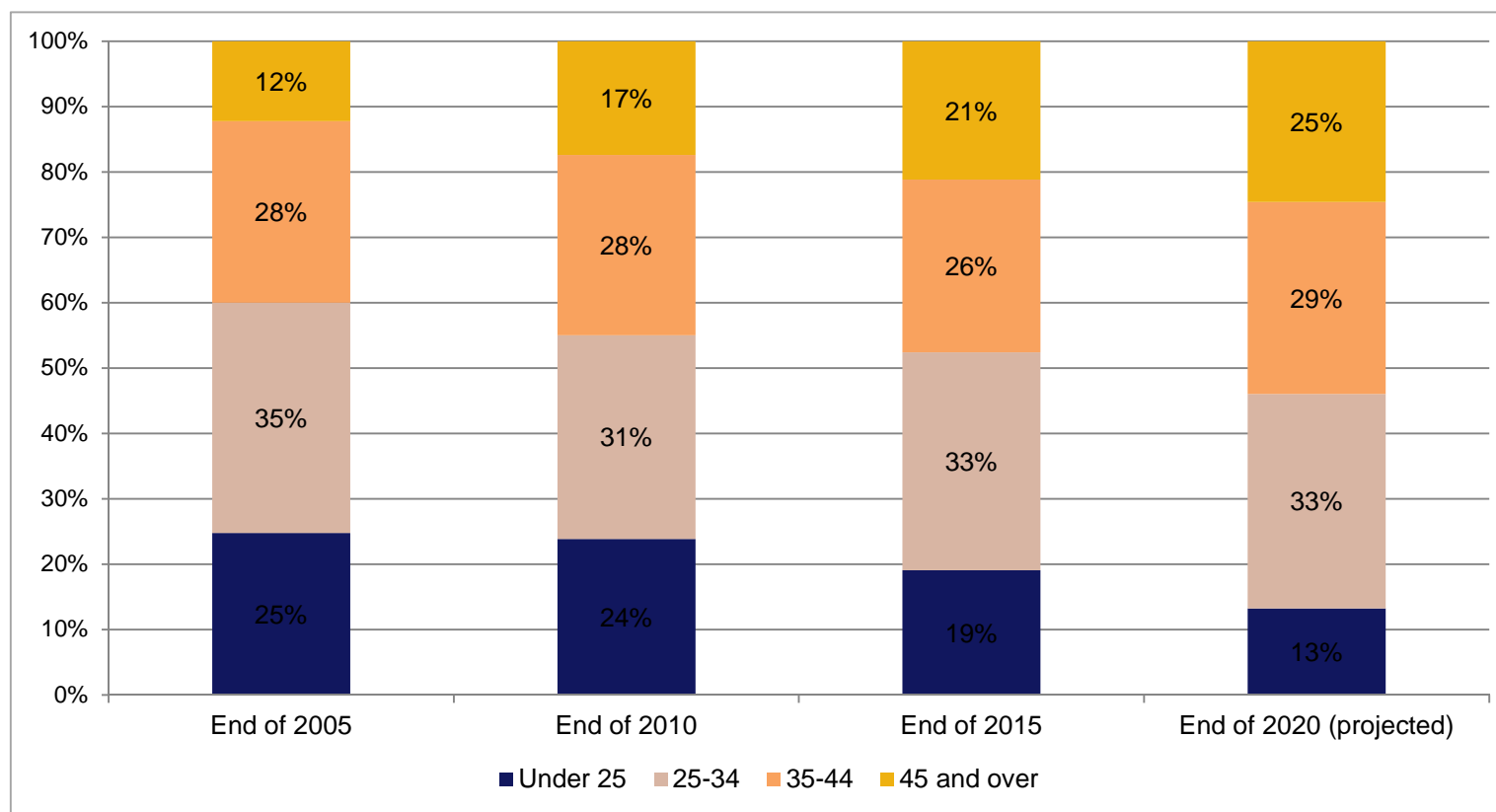


Summary of main models – non-opiates

- In summary:
 - First time entrants, treatment completions and re-presentations following treatment completions 
 - Mortality in treatment, other unplanned exits and re-presentations following unplanned exits 
- Overall, though, these effects were expected to cancel out and the population to remain broadly stable, possibly slightly increase
- This, again, does not predict excess new incidence, e.g. for NPS
- The models were tested for sensitivity on the latest two years for which full data were available, and predicted a similar change to what actually happened (modelled estimate +3%; actual +1%)

Projections by age – non-opiates

The non-opiate population is also forecast to have a continuing slight ageing trend but not as acute as that seen for opiates





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Predicting the size and characteristics of the drug treatment population – technical methods

**Annex to evidence review of drug misuse
treatment outcomes in England**

Main drugs evidence review document: <http://www.nta.nhs.uk/uploads/phe-evidence-review-of-drug-treatment-outcomes.pdf> (this part Chapter 6)

Technical annex: [http://www.nta.nhs.uk/uploads/tech-annex-to-ch6-evidence-review-drug-treatment-outcomes-final\[0\].pdf](http://www.nta.nhs.uk/uploads/tech-annex-to-ch6-evidence-review-drug-treatment-outcomes-final[0].pdf)