

# Diversity, Attrition and Transition into Nursing: The DATING Project

Promoting and Tracking Diversity of Students  
within Nursing and Midwifery Education  
- A National Model?  
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# Diversity, Attrition and Transition into Nursing (DATING) Project Team:

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## Aims of the DATING Project

- To monitor the impact of key diversity variables on student nurse progression at Thames Valley University and their transition into practice.
- To contribute towards the broader aim of establishing mechanisms for monitoring the current and future diversity of newly qualified nurses entering the NHS nursing workforce.

# Methodology

To determine student progress through the University system, final outcomes of their studies were determined.

Three categories were considered:

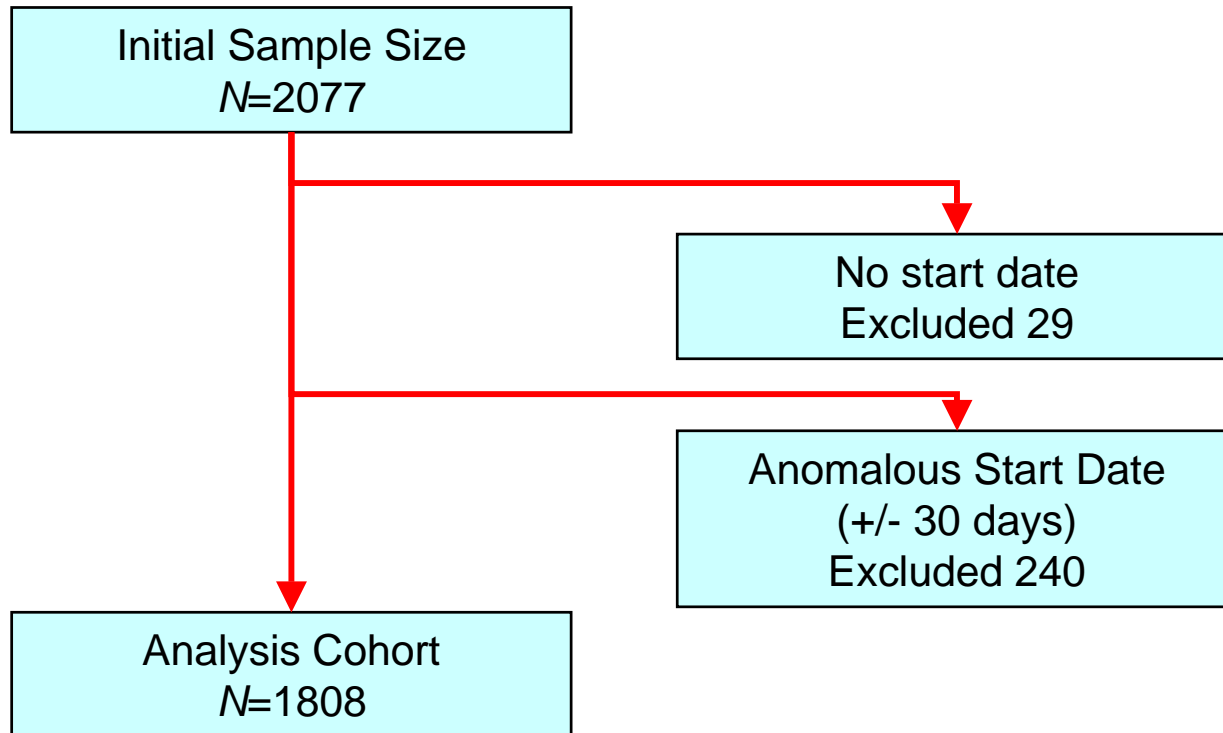
1. Students who successfully completed their course of study
2. Students who withdrew from their course before completion
3. Students who did not complete their course of study due to not meeting the required standards of the programme.

The information was held in a number of different university systems, or was held as hard copy. A key part of the project was to aggregate the information, and where possible to prospectively collect the data as a routine part of the university data collection process.

## Minimum Dataset: 21 fields

Anonymised ID	Gender	Date of birth
Cohort Intake (e.g. Oct 1999)	Branch (e.g. Adult Nursing)	Teaching Group
Seconded	Area recruited from	Visa required
Ethnic origin	Highest qualification	Country of birth
Home country	Nationality	Post code applied from
Student attrition	Assessments	Absence (Number of days)
Absence (Bradford Factor)	First Destination	Application Route (NMAS/Direct)

# Cohort



Graphical examination found no noticeable pattern to the excluded cases across the six intakes.

# Statistical analysis

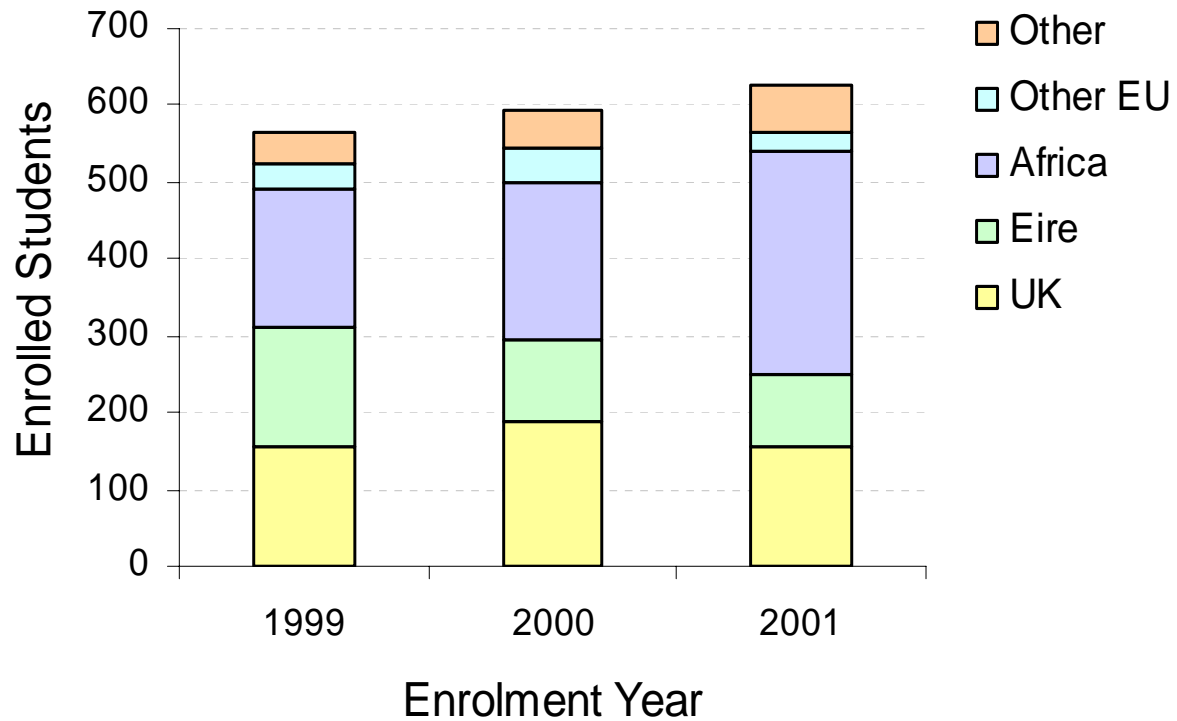
- Outcomes were modelled as binomial variables.
  - All cases:  
Successful completion vs. Non-completion for any reason.
  - Non-completers:  
Not achieving the required standard vs. withdrawal from course.
- Chi-square tests were used for crude tests of candidate predictors.
- Multivariate models were constructed using binary logistic regression.
  - Categorical variables with more than two levels were modelled using indicator variables.
  - Significance of individual levels of each predictor was tested using Wald tests.
  - Logistic regression models were compared using analysis of deviance.

# Student Profile

- Analysis was undertaken on the outcome of **1,808** students enrolled on pre-registration nursing courses between **1999** and **2001\***.
- **80%** were females and **20%** were males.
- Median age was **25.1** (range 17.6 to 58.8).
- Country of birth:
  - UK (**28%**)
  - Eire (**20%**)
  - Zimbabwe (**22%**)
  - Other (**30%**)
  - Not stated (**1%**)
- Ethnic group:
  - White (**25%**)
  - Irish (**21%**)
  - Black (**46%**)
  - Asian (**3%**)
  - Other (**4%**)
  - Not stated (**1%**)

\* i.e. prior to changes in 3 year residency criteria for eligibility for NHS bursaries

# Country of Birth by Year of Enrolment



## Number of Included Students in each Cohort

Intake	----- Ealing -----				----- Berkshire -----			
	Adult	Child	Learning Disability	Mental Health	Adult	Child	Learning Disability	Mental Health
April 1999	<b>133</b>	<b>21</b>	-	<b>59</b>	<b>65</b>	<b>8</b>	-	-
October 1999	<b>138</b>	<b>13</b>	-	<b>44</b>	<b>59</b>	<b>11</b>	<b>8</b>	<b>24</b>
April 2000	<b>99</b>	<b>6</b>	-	<b>39</b>	<b>75</b>	<b>8</b>	-	<b>16</b>
October 2000	<b>161</b>	<b>20</b>	-	<b>62</b>	<b>64</b>	<b>13</b>	<b>8</b>	<b>24</b>
April 2001	<b>115</b>	<b>9</b>	-	<b>37</b>	<b>69</b>	<b>14</b>	<b>5</b>	<b>15</b>
October 2001	<b>151</b>	<b>14</b>	<b>6</b>	<b>62</b>	<b>97</b>	<b>11</b>	<b>5</b>	<b>20</b>
<b>Total = 1808</b>	<b>797</b>	<b>83</b>	<b>6</b>	<b>303</b>	<b>429</b>	<b>65</b>	<b>26</b>	<b>99</b>

# Outcomes

Of the 1,808 student outcomes analysed:

1431 (79%) successfully completed their course and  
377 (21%) did not.

Of the latter:

231 (61%) withdrew and  
146 (39%) did not meet the required standards.

Overall, branch of nursing, campus or date of intake were not found to predict student outcomes. However, a few specific cohorts (students on a certain branch of nursing from a certain intake at a certain campus) were found to have significantly different outcomes to the overall average (95% RRs that did not cross the pooled average rate).

## Outcomes

Four of these cohorts had success rates that were anomalously low:

- Ealing April 1999 Child Nursing (21 students, 57% pass)
- Ealing October 1999 Child Nursing (13 students, 31% pass)
- Berkshire April 2000 Adult Nursing (75 students, 63% pass)
- Berkshire October 2000 Learning Disability (8 students, 38% pass).

Three cohorts had success rates that were anomalously high:

- Ealing October 2000 Adult Nursing (161 students, 86% pass)
- Ealing April 2001 Adult Nursing (115 students, 94% pass)
- Ealing October 2001 Mental Health Nursing (62 students, 90% pass).

## Pass Rate in each Cohort\*

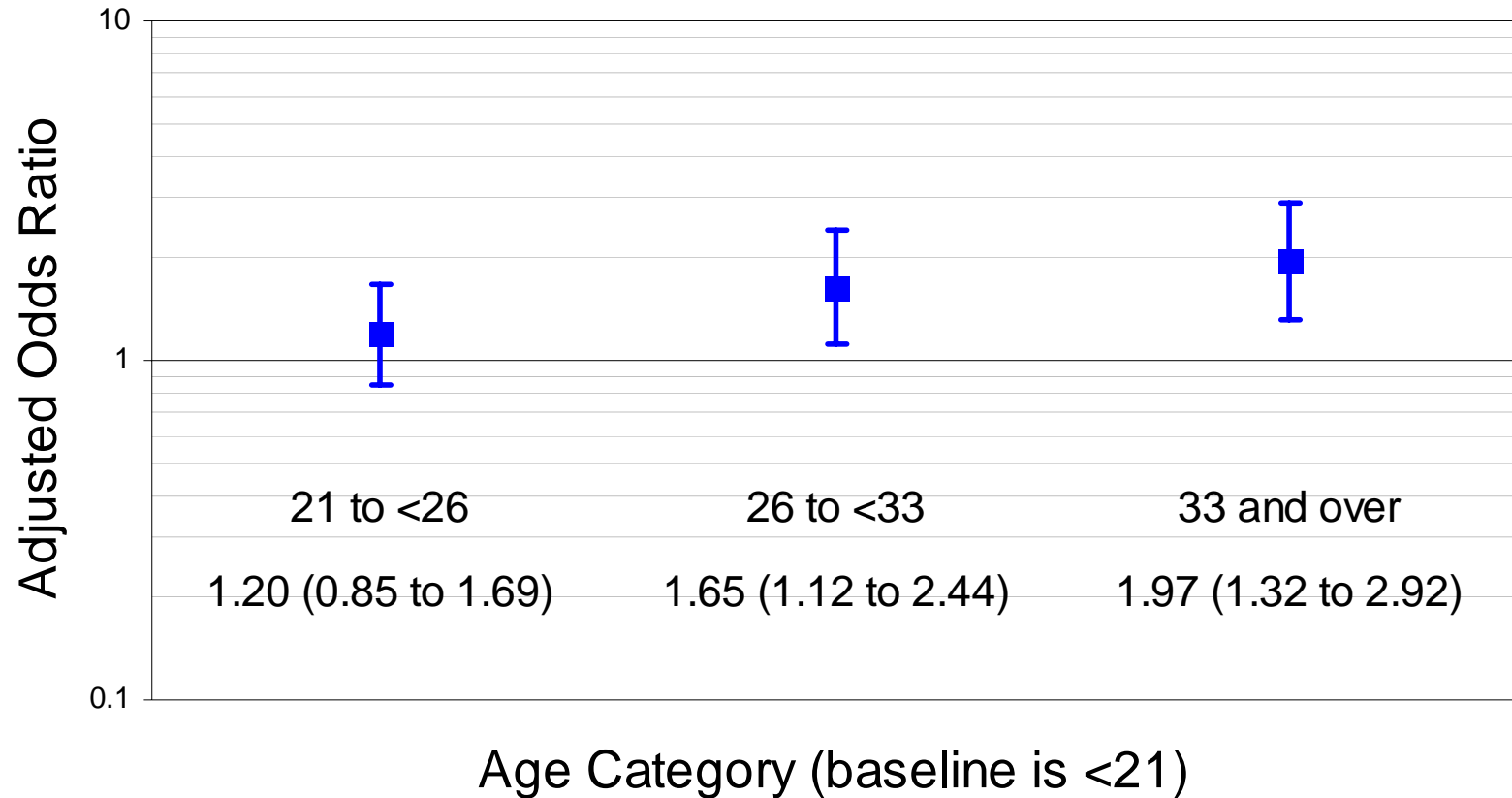
Intake	----- Ealing -----				----- Berkshire -----			
	Adult	Child	Learning Disability	Mental Health	Adult	Child	Learning Disability	Mental Health
April 1999	80%	57%	-	81%	77%	75%	-	-
October 1999	82%	31%	-	68%	66%	55%	63%	88%
April 2000	81%	67%	-	79%	63%	50%	-	88%
October 2000	86%	75%	-	76%	73%	85%	38%	83%
April 2001	94%	100%	-	86%	77%	64%	100%	87%
October 2001	81%	86%	83%	90%	75%	54%	100%	95%

\* At the time of data collection some students had outstanding paperwork and assignments that stopped their completion. This is particularly relevant for October 2001 cohort but also applied to April 2001 cohort, therefore a higher completion rate than given above will apply.

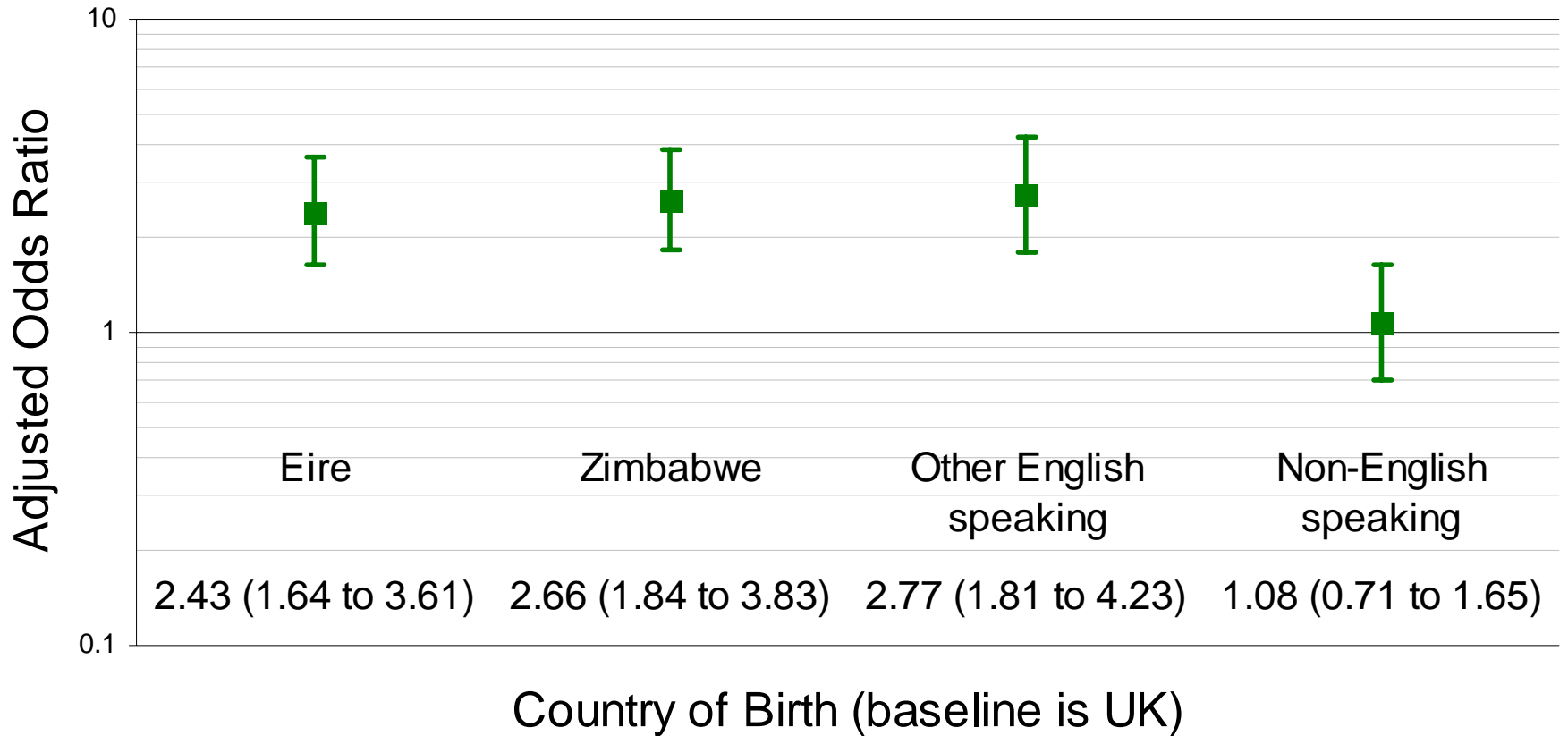
## Multivariate Predictors of Success

Predictors	Odds Ratio	(95% CI)	Wald Z	P
Born UK, < 21 years, female	1.00			
Born in Eire	2.43	(1.64 to 3.61)	4.41	< .001
Born in Zimbabwe	2.66	(1.84 to 3.83)	5.24	< .001
Born in other English speaking	2.77	(1.81 to 4.23)	4.71	< .001
Born in other non-English speaking	1.08	(0.71 to 1.65)	0.37	.714
Degree	0.43	(0.24 to 0.78)	2.81	.005
Age range 21 to <26	1.20	(0.85 to 1.69)	1.03	.302
Age range 26 to <33	1.65	(1.12 to 2.44)	2.53	.012
Age 33+	1.97	(1.32 to 2.92)	3.36	.001
Male	0.73	(0.54 to 1.00)	1.97	.049

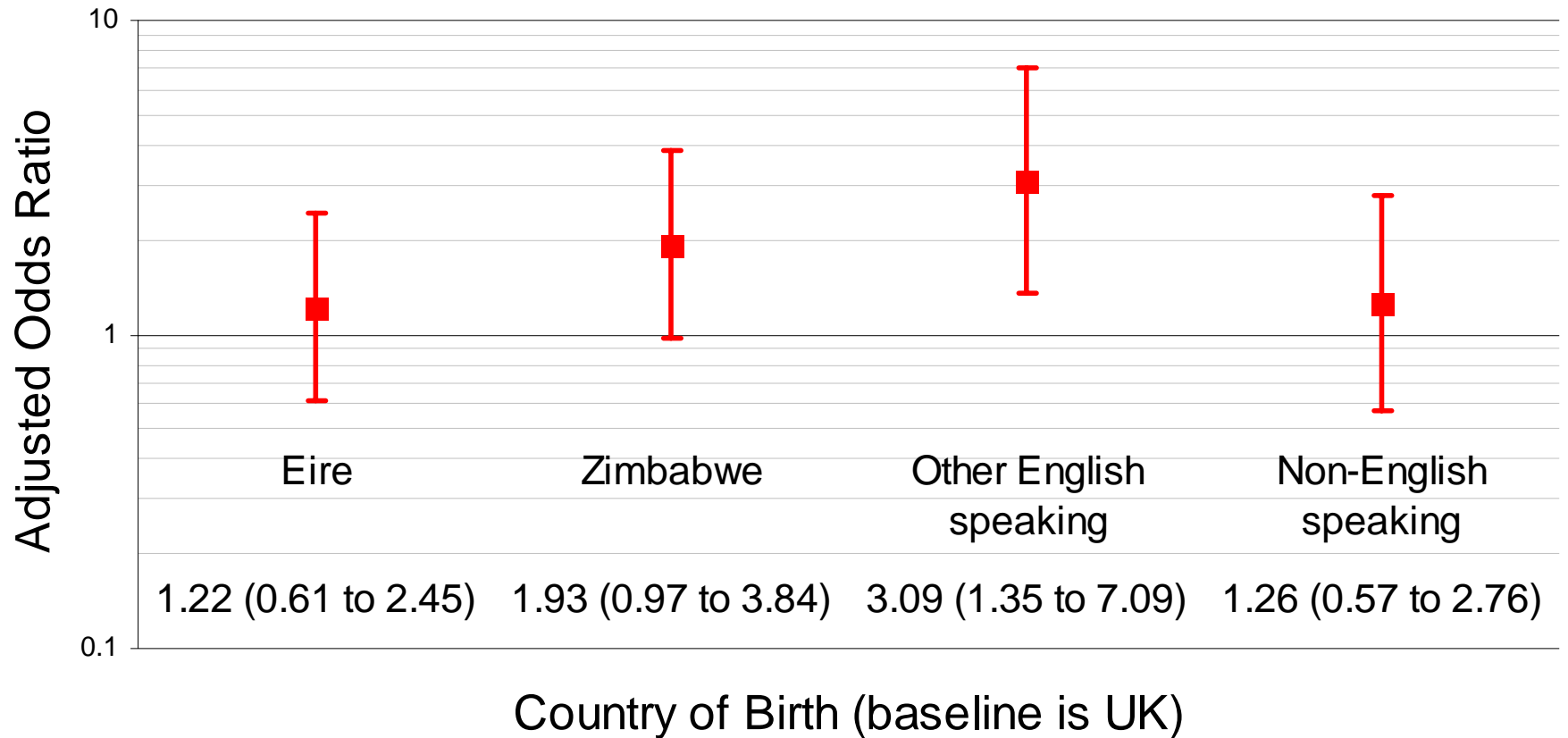
# Successful Completion by Quartiles of Age



# Successful Completion by Country of Birth



## Among Non-Completers, Required Standard



# Summary of Findings (1 of 4)

- Sex

- Male students had lower odds of successfully completing the course than females.

- Age

- Older students were more likely to successfully complete the course than younger students.
- Older students were less likely to be employed locally in the NHS than younger students.

- Qualifications

- Students who were already qualified to degree level were less likely to successfully complete the course than those enrolling with any other type of qualification. This appeared to be predominantly due to withdrawal rather than being unable to meet the required standards of the programme.

- Ethnic Origin

- Irish, Black and other (not Asian) students had better odds of success than White and Asian students.

## Summary of Findings (2 of 4)

- Country of Birth

- Eire

- More likely to successfully complete the course.
- **Less likely to be employed locally in the NHS.**
- Overall, the proportion of students initially enrolled who were employed locally in the NHS was similar for students born in the UK and students born in Eire.

- Zimbabwe

- More likely to successfully complete the course.
- **Less likely to be employed locally in the NHS.**
- Non-completion was marginally more likely to be due to not meeting the required standard of the programme (as opposed to withdrawal for any other reason).
- Overall, the proportion of enrolled students born in Zimbabwe who were employed locally in the NHS was lower than the proportion of students born in the UK.

## Summary of Findings (3 of 4)

- Country of Birth
  - Overseas in English speaking countries (other than Zimbabwe and Eire)
    - More likely to successfully complete the course.
    - Non-completion was more likely to be due to not meeting required academic standards (as opposed to withdrawal for any other reason).
    - **Less likely to be employed locally in the NHS.**
  - Overseas in Non-English speaking countries
    - Similar to UK students on odds of successful completion, reasons for non-completion and employment locally in the NHS.
    - N.B. A relatively small and highly heterogenous group.

## Summary of Findings (4 of 4)

- Application route
  - Application route (Nursing and Midwifery Admissions Service [NMAS] or Direct) was not a significant predictor of any outcomes examined.
- Absences
  - Days of absence due to sickness and Bradford score (a scale used to differentiate between people who take a lot of odd days off and those who take time off for a longer period, perhaps due to a more serious illness) did not significantly predict successful completion of the course.
  - Low scores on both of these measures of absence were predictive of withdrawal rather than not meeting required academic standards; however this is likely to be due to the earlier exit of withdrawing students and consequently reduced opportunity to be absent.

# Thank you for your attention!



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