

INTRODUCTION

In September 2012 the NCIN published the results of their Routes to Diagnosis (RtD) analyses based on all English patients diagnosed with malignant cancers in 2006-2008. The aim was to quantify the diagnosis routes of patients with a wide variety of cancers and measure survival outcomes for these different routes. This work stems from the National Awareness and Early Diagnosis Initiative (NAEDI); this initiative aims to promote early diagnosis of cancer and thereby improve patient outcomes.



This poster summarises for the four gynaecological cancers (uterine, ovarian, cervical and vulval) the analysis of variation in diagnosis pathway and survival outcomes by age and deprivation.

METHODS

By age and deprivation, estimates for incidence (2006-2008) and 1, 6, 12 month relative survival for the four main gynaecological cancers (ovarian, uterine, cervical and vulval cancers) were extracted from the RtD workbook¹ (2006-2008). Incidence was obtained for the age-groups: under 50, 50-59, 60-69, 70-79, 80-84 and 85+. Relative survival was obtained for the age-groups: 0-64, 65-84 and 85+. Incidence and survival were obtained by deprivation quintiles.

Routes include Screen detected, Two week wait (TWW), Emergency presentation, GP referral, Other outpatient, Inpatient elective, Death Certificate Only (DCO) and Unknown.

Overall incidence and survival results by RtD for the gynaecological cancers were compared with the four most commonly diagnosed cancers (breast, colorectal, lung and prostate) as well as for all cancers for incidence.

RESULTS

Overall Incidence and Survival

For ovarian cancer, the percentage of cases detected via emergency presentations overall was comparatively high (32% compared to 24% for all cancers) (Figure 1).

For cervical cancer, cases detected via emergency presentations (13%) and TWW (17%) were comparatively low whilst cases detected via GP referrals was high (28% vs. 21% for all cancers).

For uterine and vulval cancers, cases detected through emergency presentations was low (8%) and cases detected via TWW and GP referrals was high (26-37%).

Survival resulting from emergency presentations is markedly lower than for other routes for all four gynaecological cancers at all measured time points up to 12 months after diagnosis. Ovarian, vulval and cervical cancer had lower 12-month survival via emergency presentation than breast, colorectal and prostate cancers (<=47%).

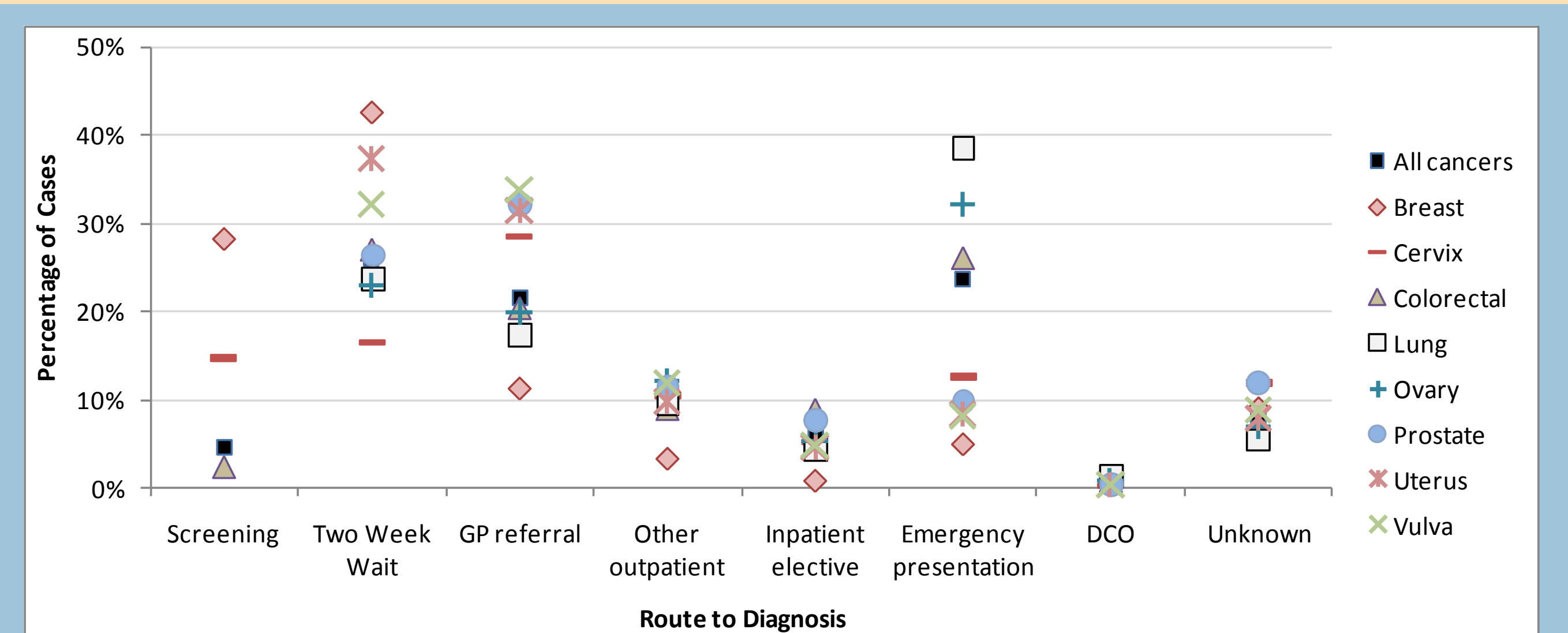


Figure 1. Gynaecological and Other Cancers - proportion of cases by RtD.

Incidence - Age

Ovarian: The percentage of emergency presentations were particularly high in older women and was the most common route for women aged 60+. Diagnosis via emergency presentation peaked at 57% in women aged 85+ (Figure 2).

Uterine: for women aged under 60, GP referral was the most common route (47% for women under 50, 37% for women aged 50-59). TWW was the most common route for older women peaking at 44% for women aged 70-79. Diagnosis via emergency presentation peaked in women aged 85+ at 27%.

Cervical: GP referral or TWW were the most common routes for women aged up to 84 years. For women aged 85+, emergency presentation was particularly high at 42%.

Vulval: For women under 60 and women aged 70-79, vulval cancers were mostly detected via GP referral. For all other women, TWW was the most common route. For women 85+, emergency presentations were highest at 16%.

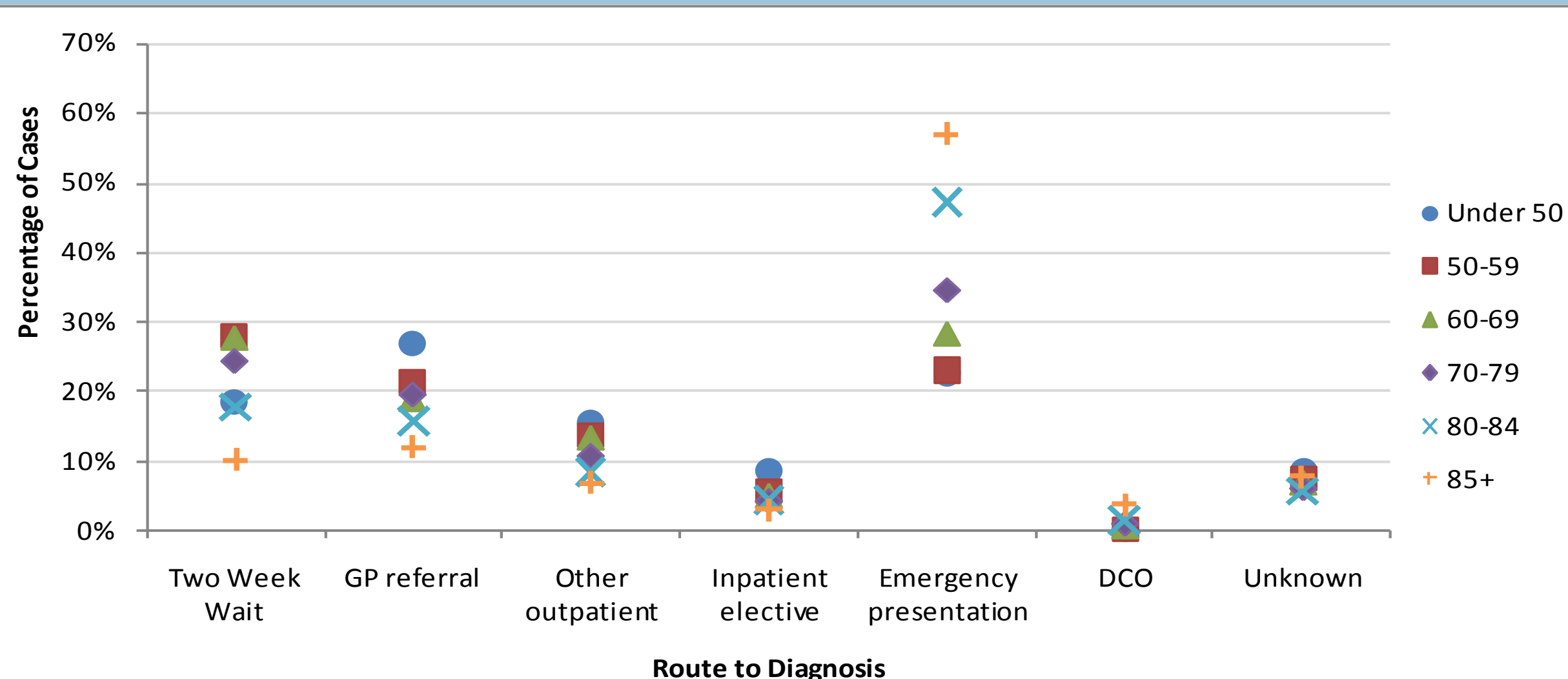


Figure 2 Ovarian Cancer: % of cases diagnosed by RtD and age-group, 2006-08.

Incidence - Deprivation

For ovarian cancer, there was a 6% difference between the least and most deprived fifth of areas nationally diagnosed via emergency presentation (least deprived - 29%, most deprived - 35%) and unknown routes (least deprived - 10%, most deprived - 4%). Emergency presentations were generally highest for the most deprived compared to least deprived fifth of areas. Unknown routes were generally highest in the least deprived compared to most deprived fifth of areas. For uterine cancers, cases detected via Other outpatient were highest in the most deprived areas.



Survival - Age

For all gynaecological cancers, survival was worse for patients diagnosed through emergency presentation, particularly for older patients diagnosed via this route.

Ovarian cancer survival was generally lower than for the other three gynaecological cancers. For those diagnosed via emergency presentation, there was over a 60% difference in 12-month relative survival between women aged under 65 and 85+ (71% and 10% respectively).

Uterine cancer survival was higher than for the other three gynaecological cancers. The difference in survival by age group was most apparent for emergency presentations; between women under 65 and 85+, there was a 37-38% difference for six- and twelve-month survival.

Cervical cancer survival was generally lower than uterine cancer. The contrast by age in 12-month survival was most apparent through unknown route, there was a 65% difference between women aged 0-64 and 85+ (96% and 31%, respectively) (Figure 3).

Vulval cancer survival was similar to cervical cancer. For those diagnosed via emergency presentation, there was a 53% difference in 12-month survival between women aged under 64 and 85+ (78% and 25%, respectively).

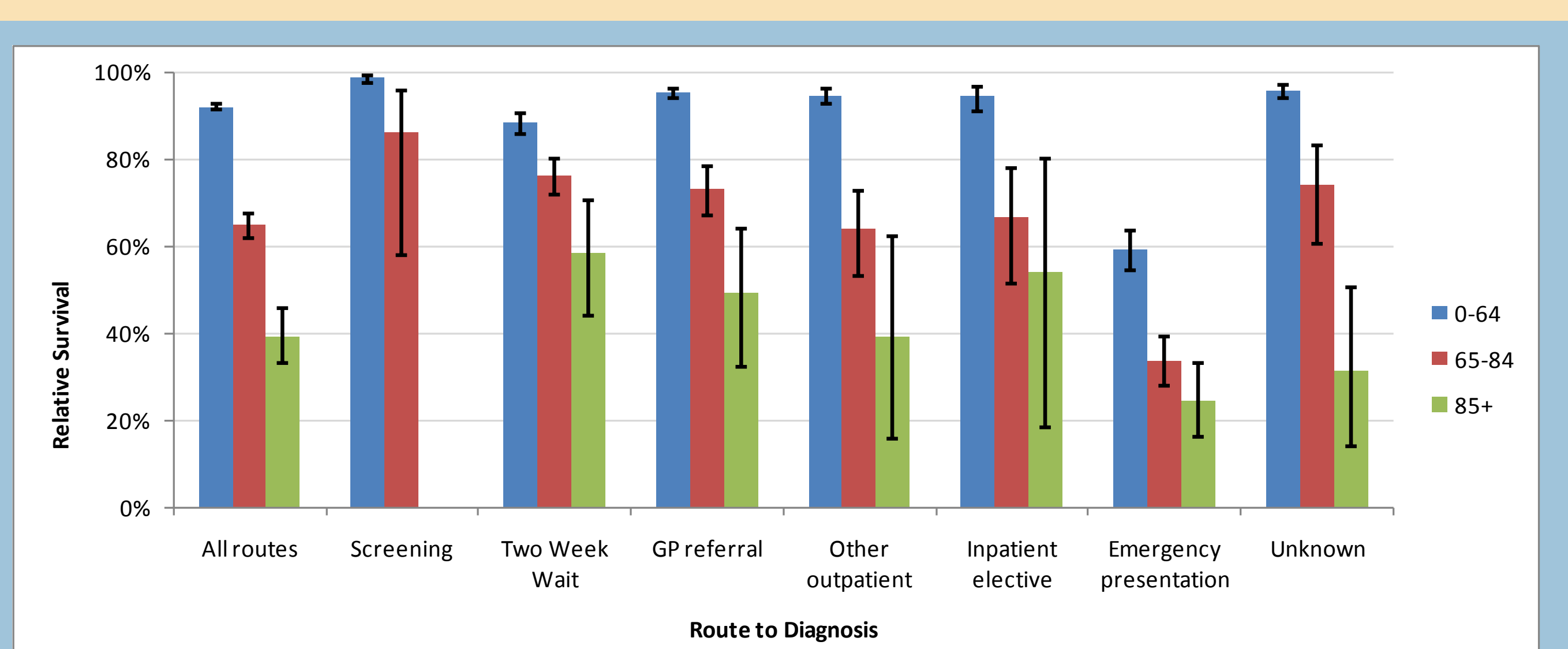


Figure 3. Cervical cancer: 12-month relative survival by RtD and age-group.

Survival - Deprivation

For ovarian and uterine cancers, generally survival was worse in the more deprived fifth of areas in England, and most notably for unknown routes. However, for uterine cancer, survival was better in the most deprived fifth of areas for emergency presentations: 12-month survival was 64% for the least deprived compared to 56% for the most deprived.

For cervical cancer, the biggest difference between the least and most deprived fifth of areas was for six-month survival via the inpatient elective route (least deprived 97%, most deprived 88%). Survival across all other routes was broadly similar across deprivation groups.

For vulval cancer, survival was fairly similar across deprivation groups. Emergency presentation had the greatest difference, 12-month survival was 36% for the least deprived compared to 49% for the most deprived.

DISCUSSION

The RtD work is a vital piece of research that can assist improving cancer outcomes and perhaps most importantly, survival. By highlighting differences in incidence and survival by diagnostic route and by age and deprivation, strategies can be implemented to target those most in need. For example, a high percentage of women, particularly older women, were diagnosed through emergency presentation and patients diagnosed through this route often have poorer survival.

Strategies should target improving detection rates via other routes, thus reducing the number of women diagnosed via emergency presentation to improve survival.

Highlighting one of the weaknesses with using routinely collected data, just 15% of cervical cases were recorded as screen detected. The screening data coverage is not consistent across England and are likely to be under-recorded³.

CONCLUSIONS

For uterine, vulval and cervical cancers, most common routes to diagnosis were GP referrals and TWW. Those diagnosed through these routes generally have better survival. However, for ovarian cancers, for women aged 60 and above, the most common route to diagnosis was emergency presentation. Those diagnosed through this route are more likely to have more advanced disease and thus poorer survival.

The greatest impact on improving survival, particularly for older women and those living in more deprived areas, is to reduce the number of patients diagnosed through emergency presentation. Improving symptom awareness and encouraging earlier presentation, particularly for ovarian cancer patients, is vital to achieve this.

ACKNOWLEDGEMENTS

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