regarding the lived experience and personal meaning of using supportive technology during the cancer experience. The aim of the current study is to explore the psychosocial experiences of people with newly diagnosed colorectal cancer using eHealth symptom management technology and their family caregivers during chemotherapy in an outpatient setting in Ireland.

Methods This research adopted an innovative longitudinal and multi-perspective interpretative phenomenological study design. Participants with Stage I-III colorectal cancer in the European randomized controlled trial of the symptom management technology, The Advanced Symptom Management System (ASyMS), were recruited for study. Semi-structured interviews were conducted with participants at two time-points i.e. while using the device and after it was returned during their chemotherapy treatment. Participants with colorectal cancer (n=3) were asked to nominate a family caregiver (n=4) to participate in separate interviews at the same time-points. All interviews were audio-recorded, transcribed verbatim and analysed using interpretative phenomenological analysis.

Results eHealth symptom management technology can be an educational and reassuring tool which can promote self-efficacy and a sense of control amongst people with cancer. Similar benefits were evident amongst their family caregivers even though they did not personally use the eHealth technology. The longitudinal design highlighted how people with colorectal cancer and their family caregivers developed a strong personal attachment to eHealth technology and likened it to another person in their family. Despite initially feeling abandoned after the technology was returned, both participant groups recognised that it had prepared them to manage their symptoms independently.

Discussion While previous studies regarding eHealth technology in oncology have focused on achieving clinically meaningful outcomes, this study offers a psychological understanding of using supportive technology during the cancer experience. This research illustrates how eHealth technology can have psychosocial benefits for people with cancer, family caregivers and their dyadic relationship which surpass the intended health outcomes of the technology. This study offers a unique perspective of people's attachment to technology during cancer treatment which has not been adequately studied previously. Findings from this research can inform future technological design, enhance oncology practice and ultimately improve the health outcomes of its users in the future.

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Background Studies of individual-level data report that palliative care (PC) availability is associated with lower risk of death in hospital.

Methods We compiled a cross-national longitudinal dataset to identify factors associated with hospital mortality rate in Europe across the years 2005–2017. We sought place of death data from the national statistics offices of the 32 EU-EEA countries. Data on palliative care availability by country were collected from the European Association of Palliative Care (EAPC) Atlases. Our primary predictor of interest was binary: in a given nation in a given year, did the palliative care provision meet EAPC recommendations, controlling for population size and age distribution? We collected additional predictors hypothesised to be associated with outcome from Eurostat, OECD and WHO: indicators of national wealth, societal factors, population health, and other health system variables. Our final dataset included 30 countries, excluding Greece (no outcome data) and Liechtenstein (which does not have its own palliative care services). We used linear regression with panel-corrected standard errors to assess association between hospital mortality rate, palliative care availability and other factors. Sensitivity analyses were performed to check robustness to imputed data. We took p<0.05 to represent statistical significance.

Results Average hospital mortality rate ranged from 27% to 67% over the observation period, with notable differences between Eastern, Southern and North(wester)ern nations both cross-sectionally and over time. The regression analysis found palliative care provision was significantly associated with lower hospital mortality rate: services in line with EAPC recommendations was associated with a 4.3% lower hospital mortality rate (95% CI: -2.8% to -0.3%; p=0.01). With respect to the national economic indicators, low HDI countries groups were significantly associated with high hospital mortality, with south countries showing the highest hospital mortality rate. In the healthcare policy domain, government funding of long term care, and lack of assistance in functional issues were significantly associated with decreased hospital mortality. Avoidable death rate, total healthcare spending on ambulatory care, and home care provision were significantly negatively associated with hospital mortality. With respect to healthcare system, the number of total hospital beds and the percent of population with unmet need due to financial reasons were significantly associated with lower hospital mortality, while the mean hospital length of stay showed significant positive association with hospital mortality.

Conclusion Hospital mortality rates varied markedly between countries and were changing in different directions over time. Palliative care access increased in the observation period and was associated with lower hospital mortality rate. Additionally, significant associations between outcome and economic, societal, and health system factors were identified in our analysis.

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Background The aging population of the UK is associated with rising health and social care spending. The need for sustainable provision of end-of-life care is therefore a public health priority, with successive governmental strategies aiming to reduce the proportion of people dying in hospital. Advance care planning (ACP) supports patients to make and

communicate decisions about their end-of-life care preferences. Previous research indicates that this reduces intensive medical intervention and terminal hospital admissions, leading to decreased health service costs. However, this healthcare perspective disregards the likely redistribution of costs to other public services and unpaid carers, potentially overstating the cost effectiveness of ACP. This study uses a broader societal perspective to construct a decision tree to model the costs and benefits of ACP in comparison to No ACP, and critically evaluates the appropriateness of this model in end-of-life care.

Methods A decision tree was constructed consisting of three branches: participation in ACP, location of end-of-life care, and attainment of end-of-life care preferences. Values for each branch were obtained using targeted literature searching, adjustment for inflation, and assumptions based on best estimates from an expert panel. Sensitivity analysis was performed to evaluate the impact of uncertainty on the model.

Results All decisions resulted in a net cost for end-of-life care, which was not outweighed by the included benefits. However, ACP was the optimal economic decision, with a net cost of -£3,602 compared with -£4,000 for No ACP. The model was sensitive to changes in the value of informal care and the value of achieving end-of-life care preferences.

Conclusion The optimal economic decision in this study supports the upscaling of ACP in the UK. This is in keeping with previous research indicating that ACP is likely to be cost-effective, and supports the economic rationale for the current UK end-of-life care strategy. However, this should be approached sensitively, and with the understanding that the principal aim of ACP is to support patient autonomy and welfare, rather than to save money. The optimal economic decision regarding ACP is sensitive to changes in several uncertain variables. Further research is therefore required regarding the social value of informal care in the UK, and exploration of the economic value of a 'good death' as a costable benefit.

P99 | **CHANGING EPIDEMIOLOGY AND AGE-SPECIFIC INCIDENCE OF BREAST CANCER IN ENGLAND, 1985–2018**

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Background Although the incidence of breast cancer has been steadily increasing in most countries over the past four decades, there is an indication of stabilisation in some of the Western countries (i.e. France, Italy, Norway, USA) in recent years. We conducted a retrospective population-based cohort study to examine whether there have been changes in the incidence of breast cancer in England during the past four decades.

Methods Individual level data for women diagnosed with breast cancer in England during 1985–2018 were obtained from the Office for National Statistics/Public Health England. Average annual incidence rates were calculated by two age categories (0–49, 50+ years) during the six five-year time periods (1985–89 to 2010–14) and the recent four-year period (2015–18). The percentage change in incidence was calculated as change in the average incidence rate from the first (1985–89) to the last time period (2015–18).

Results During the 34-year study period, a total of 1,218,109 women with breast cancer were registered in England. In women aged 0–49 years, the average annual incidence rates increased by about 50% (from 32.6/100,000 in 1985–89 to 48.8/100,000 in 2015–18); and in women aged 50+ years, the rates increased by 47% (from 241.3/100,000 in 1985–89 to 355.5/100,000 in 2015–18). There was some indication that the rates, particularly in younger women, may be stabilising (or levelling off). With regards to the levels of deprivation, least deprived women were more likely to be diagnosed with breast cancer, compared to those who were most deprived (23.0% versus 15.2%).

Conclusion It appears that, like some other western countries, incidence rates of breast cancer in England, particularly among young women, may be stabilising (or levelling off). The relatively increased risk of breast cancer among least deprived women is consistent with that reported from other Western countries.

P100 | **INTIMATE PARTNER VIOLENCE AGAINST MEN AND PRODUCTIVITY IMPACTS: EVIDENCE FROM GHANA, PAKISTAN AND SOUTH SUDAN**

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Background Reduction of intimate partner violence (IPV) is a recognized public health goal. IPV is a significant barrier to equal participation, quality of life, and personal, social and economic development throughout the world. Relative to research on IPV against women, research on IPV against men is limited, especially in low and middle-income countries. While IPV is primarily viewed as health/human rights issue, this study explores the productivity impacts of IPV on male survivors.

Methods Employing an anonymous self-filled questionnaire, 414 male employees in Ghana, 264 male employees in Pakistan, and 357 male employees in South Sudan, working in manufacturing and services sector, were interviewed. The productivity impact of IPV on male survivors was measured using absenteeism (missing work), tardiness (getting late) and presenteeism (not being mentally present at work), subsequent to the violence experience in the last 12 months.

Results About 4 out of 10 partnered male employees in Ghana report experiencing IPV in the last 12 months (41%). Compared to Ghana, the prevalence of IPV was lower in Pakistan (12%) and higher in South Sudan (59%). In Ghana, 73% of survivors report missing, on average, 5 workdays due to IPV in the last 12 months. Similarly, in Pakistan, 59% of survivors report missing, on average, 11 workdays due to IPV, and in South Sudan, 63% of survivors report missing, on average, 4 workdays due to IPV.

Conclusion In Ghana and South Sudan, a very high proportion of male employees report experiencing IPV in the last 12 months. Despite the prevalence of IPV being low in Pakistan, the proportion of survivors experiencing productivity impacts in very high in all countries. The results of this study suggest the need for strong intervention by businesses as the violence has productivity impacts for both male employees, which translate into significant economic costs for businesses.