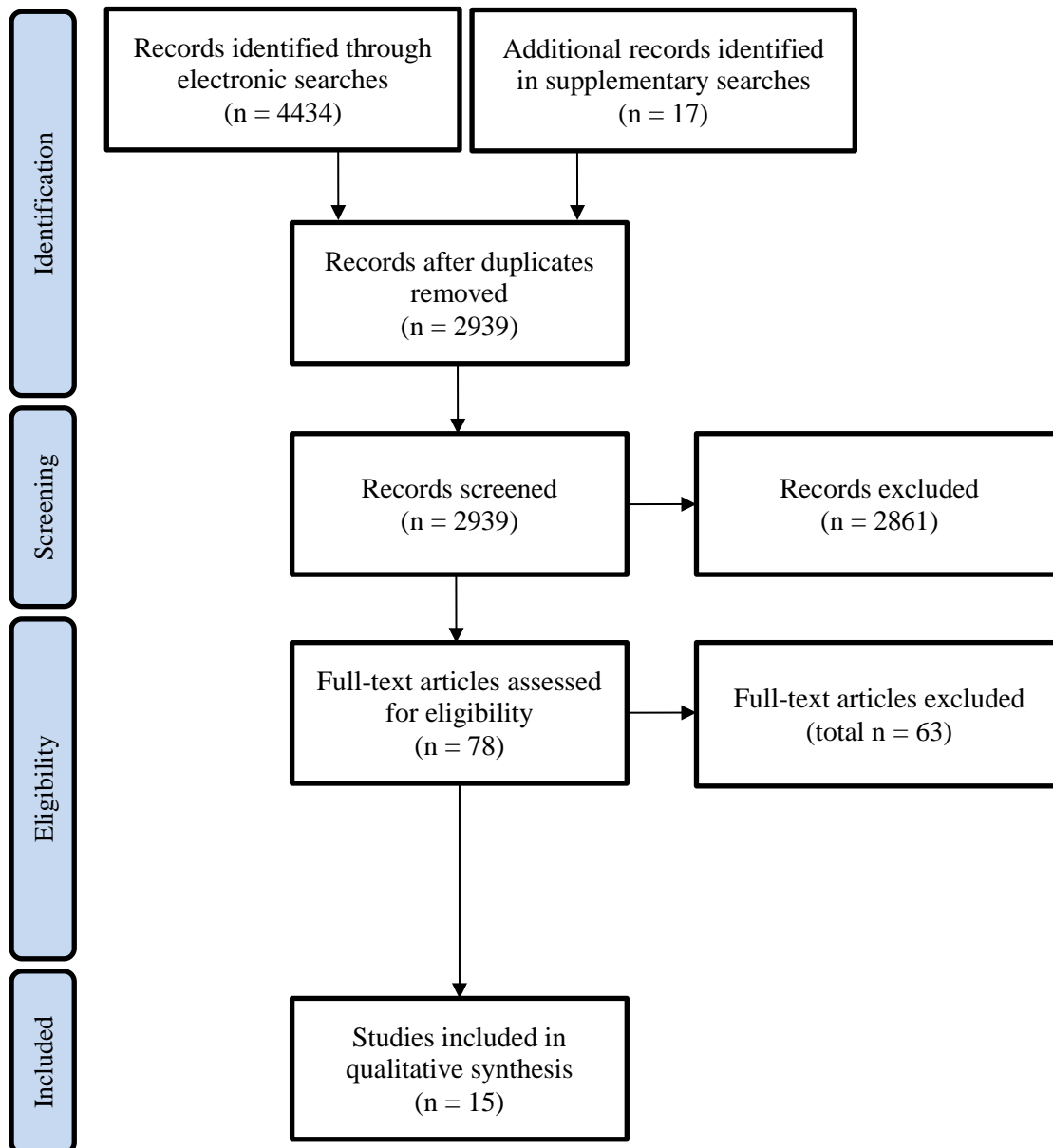


Supplementary material

Supplementary Figure 1

Study selection flow diagram



Supplementary Table 1 Systematic review search terms

S/N	Searches
1	exp neoplasms/
2	(Malignant neoplastic disease or cancer* or neoplasm* or tumor* or tumour*).tw.
3	1 or 2
4	exp socioeconomic factors/
5	(Socioeconomic* or socio-economic* or confidential or confidentiality or ethical or ethics or human rights or patient rights or prejudice or prejudicial or privacy or informed consent or autonomy or bioethic* or justices or Fair or fairly or fairness or disadvantage or disparities or disparity or equality or equity or gap or gaps or health inequalities or inequalities or inequality or inequities or inequity or unequal or variation).tw.
6	4 or 5
7	exp health insurance/ or exp reimbursement/ or exp economics/ or exp "health care cost"/
8	(Payer or health insurance or health insure* or health insuring or reimburse or reimbursement or cost* or economic* or health care cost*).tw.
9	7 or 8
10	3 and 6 and 9

Supplementary Table 2 **Summary of literature review findings**

Reference	Title	Aim of study	Study design	Study period	Key study findings
Adrien <i>et al.</i> 2014 [31]	Why are head and neck squamous cell carcinoma diagnosed so late? Influence of health care disparities and socio-economic factors	To identify any inequalities in health care and socio-economic factors influencing late-stage diagnosis of HNSCC	Cross-sectional study in 19 urban cancer centres in France; HNSCC was classed as early (T1/T2) or late (T3/T4) stage (n = 668)	1 December 2010 – 30 June 2012	Health care access in France plays a major role in the stage of HNSCC at diagnosis. Previous consultation with a specialist physician, ease of access to this specialist and having a health professional among one's close were associated with diagnosis of HNSCC at an early stage Male sex and being born in France were associated with late-stage diagnosis
Burns <i>et al.</i> 2012 [21]	An examination of variations in the uptake of prostate cancer screening within and between the countries of the EU-27	To examine variability in the uptake of PSA testing within and across 28 countries in Europe	Data from Eurobarometer 66.2 population-based survey (n = 6986)	2006	Uptake of PSA testing varies considerably across European countries (5–43% uptake) – this variation is likely to be associated with significant welfare loss Socioeconomic status was not significantly related to rates of PSA testing as recommended by a doctor, but lower socioeconomic status was significantly associated with a lower likelihood of individuals choosing to undergo testing on their own initiative
Cavalli-Bjorkman <i>et al.</i> 2011 [33]	Differences according to educational level in the management and survival of colorectal cancer in Sweden	To assess possible associations between socioeconomic factors and the surgical and oncological management of patients with colorectal cancer	Retrospective chart review using Sweden Clinical Quality Register data for Stockholm–Gotland and Uppsala–Örebro (Rectal cancer, n = 3899; colon cancer, n = 5715)	Rectal cancer, 1995–2006 Colon cancer, 1997–2006	Patients with high levels of education had a higher likelihood of receiving diagnostic tests, preoperative radiotherapy and adjuvant chemotherapy than those with shorter education A trend towards higher 5-year survival rates in groups with higher education levels was significant for cancers diagnosed at stages I–3, but not at stage IV

Reference	Title	Aim of study	Study design	Study period	Key study findings
Cheema <i>et al.</i> 2012 [3]	International variability in the reimbursement of cancer drugs by publically funded drug programs	To evaluate inter-country variability in the reimbursement of publically funded cancer drugs, and identify factors such as cost containment measures that may contribute to variability	Survey of 13 health authorities in Asia, Europe and North America	28 February 2010	Reimbursement of publically funded cancer drugs varies globally The five countries with the lowest numbers of reimbursed therapies all conduct CEA; although the use of CEA in Sweden, the Netherlands and Italy had little impact on reimbursement decisions
De Angelis <i>et al.</i> 2014 [14]	Cancer survival in Europe 1999–2007 by country and age: results of EUROCARE-5—a population-based study	To present survival estimates for adult patients (age ≥ 15 years) diagnosed in Europe during 2000–07 and to present survival trends by age and over time (1999–2007) by European region for ten common cancers	Population-based study in Europe using data from 107 cancer registries	1999–2007	5-year cancer survival increased between 2000 and 2007 in all European regions; however, in Eastern Europe cancer survival was below the European mean, particularly for cancers with a favourable prognosis Countries with high national expenditure on cancer care generally had higher survival rates than those with low expenditure; however, differences among countries with high levels of spending may reflect other factors that influence patient behaviour, overall health and cancer management decisions

Reference	Title	Aim of study	Study design	Study period	Key study findings
Fon Sing et al. 2013 [26]	Characteristics of French people using organized colorectal cancer screening. Analysis of the 2010 French Health, Healthcare and Insurance Survey	To analyse relationships between socio-demographic characteristics, healthcare access, and behaviour with regard to participation in organized colorectal cancer screening	Cross-sectional population-based survey in France (n = 2276)	2010	<p>Overall uptake of colorectal cancer screening was 41% over 2 years</p> <p>Uptake of screening was significantly higher among individuals with private health insurance (which can also be considered a proxy indicator for socioeconomic status)</p> <p>For men, having consulted a medical specialist within the last 12 months was associated with a higher uptake of screening; for women, participation in screening programmes for other cancers was predictive of colorectal cancer screening</p>
Fournel et al. 2012 [32]	Rural–urban inequalities in detection rates of colorectal tumours in the population	To investigate the influence of geographical determinants on colorectal adenoma detection and cancer incidence rates	Registry-based study in France; patients with colorectal adenoma (n = 6220) or invasive colorectal adenocarcinoma (n = 2389)	1990–1999	<p>Colorectal adenocarcinoma incidence was similar in rural and urban areas, but adenoma detection rate were lower in rural areas and appeared to depend on the presence of a physician in the local area</p> <p>Differences in adenoma detection rates may reflect rural patients' thresholds for seeking healthcare for a condition with limited symptoms, or limited access to healthcare for benign conditions</p>

Reference	Title	Aim of study	Study design	Study period	Key study findings
Gatta <i>et al.</i> 2013[13]	Variations in Cancer Survival and Patterns of Care Across Europe: Roles of Wealth and Health-Care Organization	To analyse variations in all-cancer survival across European countries in relation to macroeconomic and healthcare system indicators; 2) to analyse survival for three major cancers (colorectal, prostate, and breast) in relation to adherence to accepted treatment guidelines	Analyses based on data from the EUROCARE-4 study in Europe		<p>Total national health spending varied widely across Europe and correlated linearly with survival ($R = 0.8$)</p> <p>Both 5-year cancer survival and adherence to treatment varied significantly among countries, and the authors suggest that limited availability of treatment guidelines is associated with reduced use of standard treatments, at least for breast cancer and colorectal cancer</p> <p>Countries with high spending had high numbers of diagnostic and radiotherapy units, and the number of MRI units per capita directly correlated with survival, reflecting the importance of early diagnosis</p>
Grillo <i>et al.</i> 2012 [22]	Inequalities in cervical cancer screening for women with or without a regular consulting in primary care for gynaecological health, in Paris, France	To describe factors associated with uptake of cervical cancer screening in clinical practice	Population-based survey in Paris (n = 1843)	2005	<p>Factors associated with reduced uptake of screening included not being born in France, lower education level, manual work or no work, not having health insurance and living in a lower-class neighbourhood</p> <p>Among women who had never had a test, 56% believed testing had never been offered, suggesting that the primary healthcare system may be an additional factor in social inequality in screening</p>
Lejeune <i>et al.</i> 2010 [34]	Socio-economic disparities in access to treatment and their impact on colorectal cancer survival	To explore the associations between deprivation, access to treatment and survival for colorectal cancer in the areas covered by three regional cancer registries in the UK	Retrospective chart review of registries in the UK (n = 71 917 patients)	Patients diagnosed between 1997 and 2000	<p>Compared with the most affluent patients, those in the least affluent group had poorer survival (adjusted HR, 1.12); less affluent groups also tended to have more advanced cancer at diagnosis, and were less likely to receive treatment within 6 months</p>

Reference	Title	Aim of study	Study design	Study period	Key study findings
Menvielle <i>et al.</i> 2014 [27]	To what extent is women's economic situation associated with cancer screening uptake when nationwide screening exists? A study of breast and cervical cancer screening in France in 2010	To investigate the association between women's economic situation and breast and cervical cancer screening	Review of data from French national health survey (n = 3445)	2010	Screening was reported by a lower proportion of women with an adverse economic situation or with a low level of education, as well as by manual workers and those without employment
Ouedraogo <i>et al.</i> 2014 [23]	European transnational ecological deprivation index and participation in population-based breast cancer screening programmes in France	To investigate factors explaining low breast cancer screening programme attendance	Population-based study in France (n = 13 565)		Participation in the screening program was lower among women living in more deprived areas or in rural rather than urban areas; being self-employed or living > 15 minutes from a screening centre also limited participation
Rigal <i>et al.</i> 2011 [24]	Do social inequalities in cervical cancer screening persist among patients who use primary care? The Paris Prevention in General Practice survey	To investigate cervical screening uptake according to socioeconomic status among women consulting primary care physicians	Observational cross-sectional survey in Paris (n = 858)	2005–06	Factors affecting the likelihood of being overdue for screening were occupational status, social integration, neighbourhood and household wealth The authors conclude that use of primary care does not eliminate inequality

Reference	Title	Aim of study	Study design	Study period	Key study findings
Sullivan <i>et al.</i> 2011 [8]	Delivering affordable cancer care in high-income countries	To present opinion of healthcare professionals, policy makers, and cancer survivors concerning the barriers and solutions to delivering affordable cancer care	Review (expert opinion)		Increases in the costs of cancer care are driven by innovation, which enables payers to do more to help patients The authors identify equity issues including the absence of elderly patients from clinical research, out-of-pocket expenditure and the delivery of care for rare cancers
Walsh <i>et al.</i> 2011 [25]	The importance of socio-economic variables in cancer screening participation: A comparison between population-based and opportunistic screening in the EU-15	To investigate differences in participation with breast and cervical cancer screening related to individual socio-economic characteristics, across population-based versus opportunistic screening programmes	Data from Eurobarometer 66.2 population-based survey (Breast cancer screening, n = 2214; Cervical cancer screening; n = 5025)		Differences in participation in opportunistic screening programmes were found across socioeconomic groups defined by education level and employment type These differences were not found in organized, population-based programmes, suggesting that these programmes may provide greater equity with regard to screening than opportunistic programmes

CEA, cost-effectiveness analysis; HNSCC, head and neck squamous cell carcinoma; HR, hazard ratio; PSA, prostate-specific antigen.