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Review

Cancer Screening in Older Prison Populations: A Missed Opportunity?

Natalie Austin * and Emma Plugge

Department of Public Health, Faculty of Medicine, University of Southampton, Southampton, Hampshire SO17 1TJ, UK; e.plugge@soton.ac.uk
* Correspondence: na4g21@soton.ac.uk

Abstract

The number of older women imprisoned is increasing around the world, leading to an increased demand on health and social care services within prisons. Imprisoned women are considered older by age 50 as they experience a disproportionate burden of cancer and disease. Access to prison cancer screening programmes in prison should mirror access in the community; however, this is not always the case. The purpose of this scoping review is to systematically review the literature relating to enablers and barriers of cancer screening programmes in imprisoned older women. We performed a scoping review using the Arksey and O'Malley framework. Twelve studies were identified. Locations of studies varied across high-income countries. Enablers and barriers were identified within operational, personal, and accessibility categories. To improve mortality relating to cancer diagnosis it is vital that older imprisoned women are supported to access cancer screening. It was identified that older imprisoned women have different needs to other prison populations, and the barriers and enablers identified relate to staffing, communication, peer support, and processes to improve the experience of the older prison population. There is limited research in this area, and older women are a minority in a marginalized prison population. More research is needed to ensure the appropriate and effective development of cancer screening services.

Keywords: cancer screening; imprisoned women; older women; enablers; barriers

1. Introduction

The number of older women who are justice-involved (from arrest through to community orders, prison sentences, and trials) is growing rapidly around the world (Fazel and Baillargeon 2011; Williams et al. 2014; Maschi et al. 2013). In line with this, the demand for health and social services in this population is growing both in prisons and in the community (Aday and Krabill 2013; Williams et al. 2012).

In the UK, people are living longer today compared to a century ago. Census data demonstrates that the female population over sixty-five grew by 1.9 million (6.7%) between 2011 and 2021 (Office for National Statistics 2021). The population of older women in prison has grown at a faster rate; The Prison Reform Trust estimate the UK female prison population aged fifty years and older was 514 in March 2024, an increase of 179.5% between 2003 and 2023 (Price 2024).

Whilst the female prison population is ageing, they are not living well for longer and are disproportionately affected by health inequalities (NIHR 2023; Golembeski et al. 2020). Poverty and social exclusion underpin wider determinants that cause multi-morbidities

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(Pathirana and Jackson 2018). Houchin (2005) found imprisoned people are drawn from the most deprived sections of society and defined deprivation as poor educational achievement, limited employment experience, extensive health problems, and lower life expectancy. In line with NIHR (2023) and Golembeski et al. (2020), health inequalities were driven by the quality of access to health services, resulting in higher levels of morbidity in prisoner populations, especially amongst older adults (Houchin 2005). Criminal justice-involved women are considered older adults from fifty due to a disproportionate burden of cancer, chronic illness, and disability at earlier ages (Merkt et al. 2020).

Underpinning this high burden are poverty, poor access to health care, living in sub-standard housing with limited access to heating, and even homelessness (Zhang et al. 2021; Makaroun et al. 2017; Yoshikawa et al. 2012; Glei et al. 2022). In addition, those facing poverty are more likely to have a poor diet, smoke, struggle with alcoholism, participate in drug use, and be physically inactive (Zhang et al. 2021; Makaroun et al. 2017; Yoshikawa et al. 2012; Glei et al. 2022; Warren Andersen et al. 2016; Patel et al. 2020; Petrovic et al. 2018).

Poverty is strongly linked to increased rates of cancer and higher cancer mortality (Cancer Research UK 2020). It is thought that poverty is the initial contributing factor to cancer disparities among different groups in society (Heidary et al. 2013). Precise rates of cervical cancer for women over the age of fifty in prison in England are not available; however, evidence suggests cervical cancer in situ in this population is twice as high compared to the general population, with cancer screening rates being much lower (Armes et al. 2024; Brousseau et al. 2019).

In the UK, cancer screening programmes are in place to help diagnose cancer or identify the risk of cancer earlier to improve the likelihood of successful treatment (NHS England 2025). Whilst the methods and timeliness of cancer screening change from country to country, most other high-resource countries also screen for cervical, breast, and bowel cancer in women from the general population (Ebell et al. 2018). The World Health Organisation support the principle of 'equivalence of care' for imprisoned people, and therefore cancer screening in prison should be equivalent to that in the general population; however, evidence suggests this is not the case in most countries (World Health Organization 2022).

The increasing number of older imprisoned women and the inequities with cancer screening uptake this population faces are two global public health concerns. It is vital to understand barriers and enablers that affect cancer screening uptake for older women in prison to improve quality of care and equity of outcomes. When using "uptake" in this article, we are referring to the extent to which eligible women participate in cancer screening, regardless of the country or screening delivery model. To date, there has not been a systematic appraisal of the literature regarding this; therefore, the aim of this scoping review is to synthesise the available evidence in this area to inform future service developments and research in this important area.

2. Materials and Methods

2.1. Search Strategy

Arksey and O'Malley was the chosen methodological framework used for this scoping review (Arksey and O'Malley 2005). The framework is a six-stage systematic approach that provides a clear process for identifying, mapping, and summarising existing research on a topic. The six stages include 1. identifying the research question, 2. identifying relevant studies, 3. study selection, 4. charting the data, 5. collating and reporting results, and 6. consultation (this stage is optional) (Levac et al. 2010; Arksey and O'Malley 2005). Using this framework enables you to examine the extent and nature of evidence regarding a topic, highlighting research gaps (Levac et al. 2010; Arksey and O'Malley 2005). A systematic search was carried out on four databases, Embase, Medline, Psycinfo, and IBSS,

in September 2025. Grey literature was searched for through hand searching reference lists and websites of national organisations (Prison Reform Trust, UK Government and Women in Prison). Figure 1 below presents the PRISMA 2020 flow chart. For search terms, see Appendix A, Table A1.

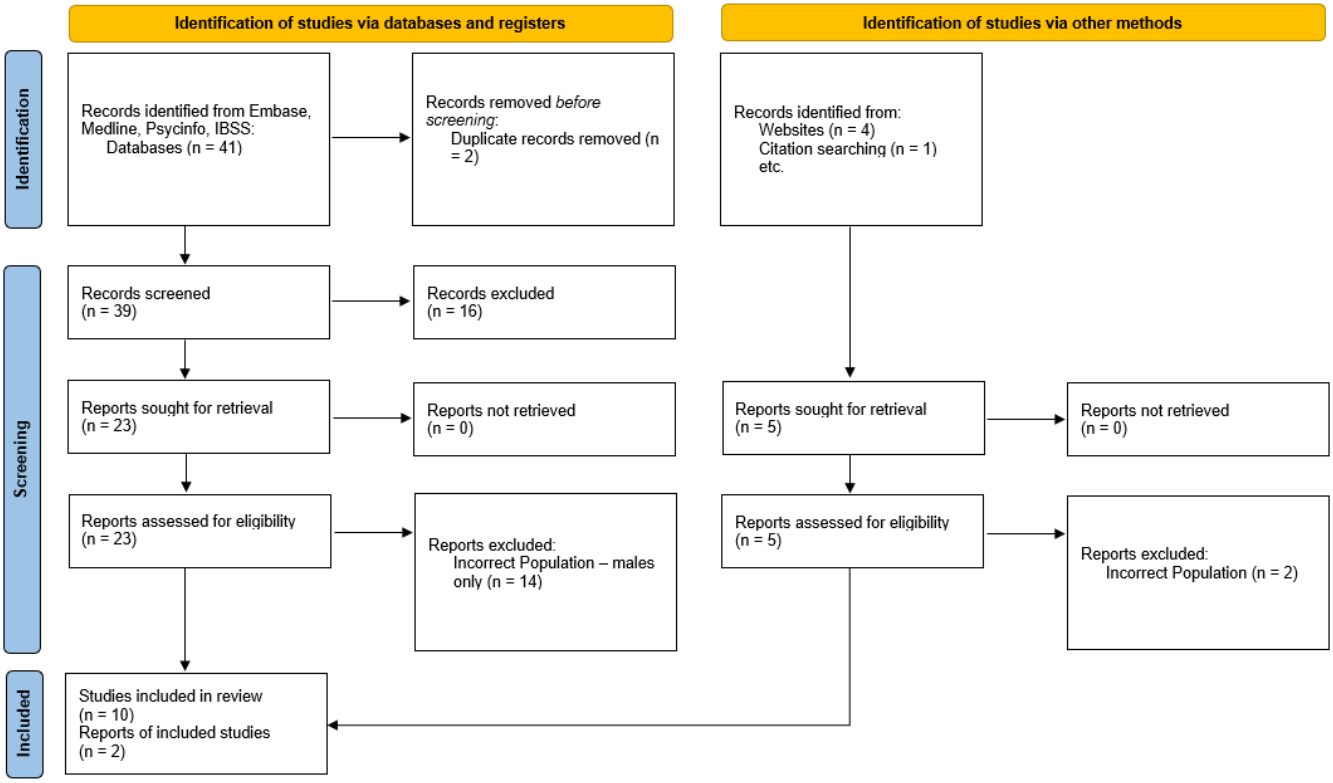

Figure 1. PRISMA flowchart.

2.2. Inclusion and Exclusion Criteria

All studies were included regardless of publication date, study type, and location. The cancer screening had to be specifically for females in prison, over fifty years of age, rather than the general prison population. Studies were excluded if they contained screening data for other illnesses other than cancer or male cancer screening. Studies reported in languages other than English were excluded, and reports were excluded; in addition, if the article was unavailable to read, it was excluded.

2.3. Screening, Data Extraction, and Analysis

Studies retrieved were imported into Rayyan, and duplicates were removed. All abstracts were screened by NA to identify articles meeting the inclusion criteria. Data were extracted from included studies using a data collection template.

For each article, information was extracted on (1) identification of the study with author, year, location, and title; (2) study details, with study type, aim of the study, sample size, and age range; (3) type of cancer screened for; and (4) screening period (prior, during, or after imprisonment). Enablers and barriers to cancer screening for older women in prison were grouped into accessibility, personal, and operational categories. Included studies described specific enablers and barriers; however, the grouping and naming of the categories reflect the authors' interpretation to meaningfully organise the findings across studies. The categories were achieved through the iterative processes of data charting and summarising the data. The quantitative reporting of outcome data was heterogenous and limited, so it was not appropriate to combine effect estimates.

3. Results

Twelve studies were identified. Apart from one study in 2005 (Magee et al. 2005), the research was undertaken between 2010 and 2025 (see Appendix B, Table A2). (Price 2024; Aday and Farney 2014; Against Violence and Abuse AVA 2019; Besney et al. 2018; Di Giuseppe et al. 2022; Magee et al. 2005; Mantell et al. 2025; Mehta et al. 2020; Nijhawan et al. 2010; Pickett et al. 2018; da Silva et al. 2017; Hewson et al. 2024). The studies varied in geographical location (see Appendix B, Table A2). Four were from the USA (4/12) (Aday and Farney 2014; Magee et al. 2005; Nijhawan et al. 2010; Pickett et al. 2018), three were from the UK (3/12) (Price 2024; Against Violence and Abuse AVA 2019; Hewson et al. 2024), one was from Brazil (1/12) (da Silva et al. 2017), one was from Italy (1/12) (Di Giuseppe et al. 2022), one was from Canada (1/12) (Besney et al. 2018), one was from Australia (1/12) (Mantell et al. 2025), and one was from North India (1/12) (Mehta et al. 2020).

Five studies were cross-sectional (Di Giuseppe et al. 2022; Mehta et al. 2020; Nijhawan et al. 2010; Pickett et al. 2018; da Silva et al. 2017), four studies were mixed-methods (Aday and Farney 2014; Against Violence and Abuse AVA 2019; Besney et al. 2018; Di Giuseppe et al. 2022), and three studies were qualitative (Magee et al. 2005; Mantell et al. 2025; Hewson et al. 2024). Eleven of the twelve studies included both enablers and barriers to uptake to cancer screening services in the older female population in prison (Price 2024; Against Violence and Abuse AVA 2019; Besney et al. 2018; Di Giuseppe et al. 2022; Magee et al. 2005; Mantell et al. 2025; Mehta et al. 2020; Nijhawan et al. 2010; Pickett et al. 2018; da Silva et al. 2017; Hewson et al. 2024). One study included barriers to cancer screening only (Aday and Farney 2014). Of the enabling factors identified, eleven were in the personal enablers and twelve were in the operational enablers. For barriers identified, five were accessibility barriers, six were personal barriers, and eleven related to operational barriers.

3.1. Barriers to Cancer Screening Uptake in Older Imprisoned Women

Six studies reported quantitative barriers to cancer screening uptake in older imprisoned women, and four studies reported qualitative barriers. These are summarised in Tables 1 and 2.

Table 1. Barriers to cancer screening uptake in older female prisoners (quantitative).

Study	Barrier	Population	Analysis	Results
(Di Giuseppe et al. 2022)	Accessibility (knowledge)	327 women ranging from 50 to 77 years.	DA	85.9% of women had never heard of the cervical screening test. 5.1% found out about cervical cancer screening in prison; 93% said they need more information.
(Mehta et al. 2020)	Accessibility (knowledge)	Total study sample 181 female prisoners, of whom 15 were 50+ 8.2%.	DA	91/181 were illiterate. 2/181 had ever received cancer screening. 22.6% of 181 were screen-positive compared to 7–17% in other studies.
(Nijhawan et al. 2010)	Personal (homelessness)	99 female prisoners (33 over 40).	LR	Those who were homeless prior to incarceration were much less likely to have had a smear in the past year compared to those who were not homeless (aOR = 0.2 95%CI 0.05–0.67).
(da Silva et al. 2017)	Personal (age)	510 female prisoners participated in interviews and 352 female prisoner's records were analysed.	C	**Greatest uptake among women aged 35–64 years and less uptake in ages 18–24 years and 65 years and older ($p < 0.01$).**

Table 1. *Cont.*

Study	Barrier	Population	Analysis	Results
(Pickett et al. 2018)	Personal (ethnicity)	261 female prisoners of which 28 were 50+.	DS	21/28 over 50 reported ever having had a mammogram *. **Significantly more likely to have had a mammogram if they were black compared with white or another race (100% vs. 53.8%, 50%, $p < 0.01$).**
(Besney et al. 2018)	Operational (length of prison stay vs. length of time to be seen)	109 females aged 18–50+ (3 are 50+).	DA	Average length of stay of 11.25 days compared to average time to be assessed by WHC of 24.4 days; 62% released before being screened.

aOR (95%CI)—adjusted odds ratio, 95% confidence interval; bold—statistically significant (where available * means $p < 0.01$); WHC—Women's Health Clinic; DA—descriptive analysis; DS—descriptive statistics; LR—logistic regression; C—correlation.

Table 2. Qualitative findings relating to barriers to cancer screening uptake in older imprisoned women.

Barrier	Description	Study	Quotes
Accessibility	Structural and inter-personal barriers affecting cancer screening uptake behaviour	(Magee et al. 2005)	"I had a couple that weren't right [abnormal Pap test results]. No one said anything until a year later." "I went through the right process and still couldn't see a doctor." "I never got no paperwork in the mail saying what happened. I got no results at all." "Seventy-five percent of the women are illiterate. They don't know to put in a co-pay. They write 'pain down there' on their co-pay and are then misdiagnosed or just given medication."
		(Hewson et al. 2024)	"You just don't know where they're going, so the idea of them engaging with community services for their long-term condition. . . The onus goes on to them" "When they're released, they expect it to be done for them; and they haven't got the drive or the ownership to go and go and seek help do it themselves".
		(Besney et al. 2018)	"The barrier is that more pressing emergent situations always take priority every day" "Cause when I'm out it seems like I have to go back to square one again, going to the gynecologist and all that step by step, right, and its. . . myself being in and out, I hate to say that but yeah. . . it can take a long time before I actually get some help, right." (FI-4) "So an annual Pap or physical is way less of a priority than someone who was punched in the face last night."
		(Against Violence and Abuse AVA 2019)	"There should be better prison inductions for women; there is currently too much information in the induction that women can't retain—this needs to be reinforced, and very practical information about prison life needs to be given." "Prisons are a world of chaos, of not knowing what's going on". "Women and the Advocates all highlighted that communication was the biggest problem they faced—be it lack of communication or miscommunication"

Table 2. *Cont.*

Barrier	Description	Study	Quotes
Personal	Past experiences and varying older female needs affecting cancer screening uptake	(Magee et al. 2005)	"Females have more understanding and can be more compassionate with Paps. It is kind of embarrassing for men to do it." "I was never reassured by the doctor. There was no care and no time given to that aspect of my care. There was no overall [sic] humane treatment." "They expect us to give them respect, but they don't respect us. They treat us like we are animals just because we are incarcerated." "Ninety-nine percent of the women have been abused or raped. To have a man take us into an office the size of a closet. . . stripped down. . . [it's] rough and hurts us. . . it takes us right back to the beginning." "There does not exist the classic protective relationship between a doctor and their patient inside.. . . The doctors do not feel driven to take on any type of advocacy effort for a patient that they are unable to develop a doctor–patient relationship"
		(Aday and Farney 2014)	"I feel the medical staff look down on us" "Medical personnel need to be more attentive to our needs"
		(Price 2024)	"There seems to be little, or no consideration given to age or ageing women generally". "With no knowledge of how to care for female older residents, older residents quickly feel marginalised which leads to low self-esteem, confidence, purpose".
		(Besney et al. 2018)	"I don't trust doctors; I don't trust any hospitals. So, it's very hard for me." (FI-3)
Operational	Staff, transitional care and capacity problems preventing uptake of cancer screening	(Mantell et al. 2025)	"The more people you identify, but without the resources to meet that need, what are the implications and then what do we do with that? We might not be able to meet the need that we identify"
		(Against Violence and Abuse AVA 2019)	"Women might only just start getting health sorted but it all falls apart on release. Any work that has been done in prison can get lost. And on release, health always seems to be at the bottom of the list—obviously housing is usually at the top." "all depends on who you know. . .because there are no clear points of contact." Healthcare in prison is insufficient and does not meet the requirement to be the equivalent of what is available in the community. "Additional punishment for women".
		(Magee et al. 2005)	"It's really open. . . where they do the Paps. It has a lot of windows and see-through curtains. This needs to change." "Even though I'm in prison, I'm a human being just like everybody else. I'm no different." "[Providers] can get in trouble for being an advocate. . . The system wants you to be mean to the inmates. . . Employees can be written up for 'fraternizing' with the in mates."

3.1.1. Accessibility Barriers

Knowledge was identified as a key barrier to accessing cancer screening services. Research reported a large proportion of older women in prison had never heard about cervical cancer screening (85.9%) and 50% of older women in prison were illiterate (Di Giuseppe et al. 2022; Mehta et al. 2020), preventing them from being able to read information regarding how to access cancer screening or understand the benefits of cancer screening.

Qualitative findings added further insights to this accessibility barrier, highlighting frequent lack of communication or miscommunication impacts the knowledge older women have regarding cancer screening, leaving them to feel like prison is a "world of chaos".

3.1.2. Personal Barriers

The quantitative findings suggested that age was an important factor, with women aged over 65 years being less likely to have been screened for cervical cancer (da Silva et al. 2017).

Furthermore, the qualitative findings identified that past experiences impact older women's ability to engage with cancer screening (Magee et al. 2005). A large percentage of the women were reported to have previously been raped and sexually abused (Magee et al. 2005). Older women explained the nature of the tests were rough and inhumane, stating they would not be comfortable with a male provider administering screening. In another study, where all participants were over the age of 50, it was found that older female prisoners feel as if the prison staff who carry out cancer screening look down on them, adding to the tension (Aday and Farney 2014).

3.1.3. Operational Barriers

The nature of short sentences for older women is problematic in not only accessing cancer screening services but also receiving the results of any screening that does take place whilst in prison. Besney et al. (2018) found the average length of stay was less than half (11.25 days) of the wait to be assessed by the Women's Health Centre for cancer screening (24.4 days), resulting in 62% of older women being released prior to being screened (Besney et al. 2018).

Qualitative findings highlight the impact short sentences have on accessibility of cancer screening when released from prison. It was found that older women are left to start healthcare screening arrangements again on their own once back in the community (Besney et al. 2018; Hewson et al. 2024) and often are not able to navigate this process.

3.2. Enablers in Cancer Screening Uptake in Older Imprisoned Women

Table 3 includes quantitative data from five studies reporting enablers in cancer screening uptake in older female prisoners, and Table 4 includes qualitative data from five studies.

Table 3. Enablers that increase cancer screening uptake in older imprisoned women.

Study	Enabler	Population	Analysis	Results
(Di Giuseppe et al. 2022)	Personal	Total study sample of 181 female prisoners, of whom 15 were 50+ 8.2%	LR	**Family or friend having a history of cancer**—OR = 3.358, 95%CI 1.091–10.331 **Working in prison**—OR = 4.233, 95%CI 1.417–12.648 **Being aware of HPV infection causing cancer**—OR = 10.305, 95%CI 2.962–35.851 **Being older at first sexual intercourse**—OR = 3.645, 95%CI = 1.071–12.397

Table 3. *Cont.*

Study	Enabler	Population	Analysis	Results
(Nijhawan et al. 2010)	Personal	99 female prisoners (33 over 40)	LR	**Having greater than high school education**—OR = 3.9 CI 1.15–12.40 **Having a history of drug or alcohol use**—OR = 4.3 CI 1.22–14.90
	Operational			**Having cervical cancer screening whilst in prison**—OR = 10.9 95%CI 3.19–37.01 **Having health insurance**—OR = 4.2 95%CI 1.3–13.60
(Pickett et al. 2018)	Personal	261 female prisoners of whom 28 were 50+	DS	**Experiencing IPV within the past year**—71.4% had experienced IPV as an older prisoner in the last year vs. 14.2% of prisoners who had not experienced IPV, $p < 0.01$)
	Operational			**Personal doctor (mammogram)**—OR = 8.80, 95%CI 1.15–55.2
(da Silva et al. 2017)	Operational	510 female prisoners participated in interviews, and 352 female prisoner's records were analysed	C	**Longer sentences**—Greater uptake among women imprisoned for 13 months or more when compared with those imprisoned for fewer than 12 months ($p < 0.01$)
(Besney et al. 2018)	Operational	109 females aged 18–50+ (3 are 50+)	DS	Purpose-built women's health clinic—Pap screening increased through WHC from 15% to 54%*, $p < 0.001$

aOR (95%CI)—adjusted odds ratio, 95% confidence interval; bold—statistically significant (where available * means $p < 0.01$); WHC—Women's Health Clinic; DS—descriptive statistics; LR—logistic regression; C—correlation; IPV—intimate partner violence.

Table 4. Qualitative findings relating to enablers of cancer screening uptake in older female prisoners.

Enabler	Description	Study	Quotes
Accessibility	Structural and inter-personal preferences for communication	(Magee et al. 2005)	"Women expressed a desire to receive health information from their providers respectfully and in language they could understand"
Personal	Increased capacity and skill	(Magee et al. 2005)	"We just try to take care of each other until we can't no more or figure out a way to fix it ourselves." "I would also like to see more empowerment for the women inside. It would be nice to see prisoner self-advocacy that doesn't equate to having conflict with one's doctor or being confrontational, but by gaining power through negotiation." "A lot of women are scared to speak up. I used to be scared, but I'm not anymore."
		(Besney et al. 2018)	"Honestly the only reason why I never went and followed up [in the community] is because I didn't want to. I didn't care because of my addiction, right, and that's not who I am. But here, right away when I came here and was sober for a couple days, a couple weeks, or whatever right, I wanted to get everything checked out." "Well here they have the time to be able to think about what's going on with themselves and then self-refer based on the things they are experiencing or have experienced and just didn't have the time to address outside and now they have a means to go about it"

Table 4. *Cont.*

Enabler	Description	Study	Quotes
Operational	Mobilising care, person-centred approach, and trusted advocates for cancer screening	(Besney et al. 2018)	"She just brought me some pamphlets about all sorts of things like places to stay, shelters, places to access emergency food, clothing, like just a list of resources in the community for anything, right, and it was good. So. . . she made me feel like I could just talk to her about anything that I need help with, medical too. She was willing to help me with anything like if it was like you know say if I had a lump on my breasts you could tell her that and you knew that she was going to take care of that somehow for you. . . anything, it was good." (FI-8) (Purpose Women's Health Clinic) "Everything was just done quickly so it impresses them, the ladies, as well to know like 'wow I'm going for this test, my goodness this is happening, I'm going for a mammogram, that lady told me the truth, this is really happening.' Rather than you wait too long and then they just kind of go 'oh they must have forgot about me.'(HS-2)
		(Hewson et al. 2024)	They often have quite good links with the secondary care colleagues, so they may be able to liaise without secondary care needing to come to the prison We are very lucky that our governors are very health focused. I've got healthcare governor (. . . who is) really keen to get the appointments out, which I think is fantastic and they will bend over backwards. They'll even lock the regime down if necessary to get somebody out"
		(Against Violence and Abuse AVA 2019)	"Practical workshops are designed to engage with women who are not ready or able to access 1:1 advocacy and support and help women to open up. Information is shared in an accessible format with the aim of women being able to utilise their new knowledge independently to support their own health". "There should be more scope for Healthcare Assistants and Peer Mentors to provide health-related support to women prisoners"
		(Price 2024)	"To improve screening should consider ambulatory care"

3.2.1. Accessibility Enablers

Knowledge and awareness are important enablers, especially when trusted relatives or friends can share insights. It was found if a family member or friend had previously experienced cancer, this increased the uptake of cancer screening in older women by 3.358 (95% CI 1.091–10.331) times compared to older female prisoners without cancer history in their family/friends (Di Giuseppe et al. 2022). Likewise, being aware of what the HPV infection is increased the uptake of cancer screening in the older population by 10.305 (95%CI 2.962–35.85) times compared to those who are not aware of the HPV infection (Di Giuseppe et al. 2022). This is in line with the findings relating to the level of education—the more education an older woman in prison had, the more likely they were to have had cancer screening (Nijhawan et al. 2010).

Qualitative findings support the need for older women to have sufficient knowledge regarding cancer screening but highlighted the information needs to be presented in a way they can relate to and understand (Magee et al. 2005).

3.2.2. Personal Enablers

Experiencing intimate partner violence (IPV) as an older prisoner increased the likelihood of engaging with cancer screening; 71.4% of older female prisoners who had experienced IPV engaged with cancer screening, compared to 12.2% of older female prisoners who had not experienced IPV (Pickett et al. 2018).

Qualitative findings differed to the quantitative findings of past experiences. Qualitative findings highlighted the importance of social support when accessing cancer screening services as an older woman in prison (Magee et al. 2005) and being able to abstain from alcohol and drugs to create the space to consider their health needs (Besney et al. 2018).

3.2.3. Operational Enablers

In line with the barrier identified relating to sentence length, those sentenced to more than 13 months in prison had greater uptake of cancer screening than those with shorter sentences (da Silva et al. 2017). Qualitative findings go on to explain that peer mentors and healthcare assistants would provide a good mechanism of support to increase cancer screening through relationship building. Relationship building and trust take time and are not possible with shorter sentences (Against Violence and Abuse AVA 2019).

In addition, qualitative findings highlight the importance of having a purpose-built women's health centre or ambulatory care (Besney et al. 2018; Price 2024) as this shortened the wait to be seen, older women felt their differing care needs were met, and relevant information was provided in ways the women could understand (Price 2024; Besney et al. 2018). The women's health centre is delivered through the prisons' health service infrastructure rather than an external non-profit organisation (Besney et al. 2018).

When prison staff are able to make links with secondary care and community provision, older women are likely to be better supported to access cancer screening following release from prison (Hewson et al. 2024).

4. Discussion

Individuals in prison are an understudied population, and among them, both older people and women are even less likely to have been researched (Price 2024; Aday and Farney 2014; Against Violence and Abuse AVA 2019; Besney et al. 2018; Di Giuseppe et al. 2022; Magee et al. 2005; Mantell et al. 2025; Mehta et al. 2020; Nijhawan et al. 2010; Pickett et al. 2018; da Silva et al. 2017; Hewson et al. 2024; Munday et al. 2019). To our knowledge, this scoping review is the first to examine the literature regarding enablers and barriers in cancer screening uptake in older women in prison. The overall literature contains large gaps; however, this scoping review found twelve studies that provide data on solvable barriers and enablers that will improve cancer screening uptake in older women in prison (Price 2024; Aday and Farney 2014; Against Violence and Abuse AVA 2019; Besney et al. 2018; Di Giuseppe et al. 2022; Magee et al. 2005; Mantell et al. 2025; Mehta et al. 2020; Nijhawan et al. 2010; Pickett et al. 2018; da Silva et al. 2017; Hewson et al. 2024).

Most of the relevant research considered cervical cancer screening (Besney et al. 2018; Di Giuseppe et al. 2022; Magee et al. 2005; Mehta et al. 2020; da Silva et al. 2017), and there was a reasonable spread of geographic locations, suggesting barriers and enablers are consistent in prisons across high-income countries. None of the research was from lower- and middle-income countries (LMICs), and given 65% of all cancer deaths occurred in LMICs in 2020 (International Agency for Research on Cancer (IARC) (2020)), this is an important finding and highlights the urgent need for more research assessing cancer screening processes and barriers and enablers to access in LMICs. Only one paper looked at breast screening, and none of the papers considered colorectal screening. This paucity of research differs from research on other health inclusion groups such as homeless popu-

lations, vulnerable migrants, sex workers, and Gypsy, Roma, and Traveller communities, where data regarding barriers to cancer screening uptake is much more available and includes breast screening (Ponce-Chazarri et al. 2023; Al-Assil et al. 2025; Nassur et al. 2025; Hawkins et al. 2024; Bolarinwa and Holt 2023; Fox et al. 2025), lung screening (Al-Assil et al. 2025; Nassur et al. 2025; Hawkins et al. 2024; Bolarinwa and Holt 2023; Fox et al. 2025), colorectal screening (Al-Assil et al. 2025; Nassur et al. 2025; Fox et al. 2025), and cervical screening (Al-Assil et al. 2025; Nassur et al. 2025; Hawkins et al. 2024; Bolarinwa and Holt 2023; Derveeuw et al. 2025). Health inclusion groups are of interest as, like older women in prison, they are also socially excluded and experience multiple overlapping risk factors for poor health like poverty, violence, and complex trauma leading to significant health inequalities and poor cancer screening uptake (Luchenski et al. 2018).

Highlighted often in the findings was the barrier that being illiterate creates for older women in prison (Against Violence and Abuse AVA 2019; Di Giuseppe et al. 2022; Magee et al. 2005; Mehta et al. 2020; Nijhawan et al. 2010). Accessibility is key to uptake of cancer screening, and often older women in prison cannot read documentation and are not aware of the risks of cancer or the purpose of screening (Against Violence and Abuse AVA 2019; Di Giuseppe et al. 2022; Magee et al. 2005; Mehta et al. 2020; Nijhawan et al. 2010). Being able to understand information regarding cancer screening is key to accessing services. Hawkins et al. (2024) completed a service evaluation and found older women experiencing homelessness often have a lack of knowledge regarding cervical cancer, contributing to the low uptake of cancer screening in this population too (Hawkins et al. 2024). However, those aged 55–59 years were most likely to engage if supported (da Silva et al. 2017; Hawkins et al. 2024), suggesting that if services consider knowledge barriers and communication when designing cervical cancer screening services for older women in prison, this is likely to have a positive impact on uptake. There are examples of general education programmes in prisons that aim to support literacy in high-income countries; however, they are not tailored to the differing needs of older females (Lacey 2023; Kendall and Hopkins 2019; South et al. 2014). In the UK, Australia, and America, the education initiatives are usually delivered by non-profit charities and focus on a peer-led model where other imprisoned individuals are trained to help learners improve basic reading and numeracy skills (South et al. 2014; Lacey 2023). Most prosecutions for females are concentrated between the ages of 20 and 45, and whilst the older female prison population is growing, there are still more female prisoners who are younger (Ministry of Justice and HM Prison and Probation Service 2019; Statistico 2024). This may make the peer model difficult when trying to increase literacy in older females. Kendall and Hopkins (2019) found peer mentoring is most effective when mentors and learners can relate to each other, which is considerably harder with a large age gap.

Personal barriers such as the women's past experiences prior to imprisonment affected whether they engaged with cancer screening and highlighted the need for female health workers (Price 2024; Aday and Farney 2014; Besney et al. 2018; Magee et al. 2005). This is in line with findings from other populations with low cancer screening uptake. A rapid review looking at barriers to breast, cervical, and colorectal cancer screening faced by refugees resettled in the United States found Bosnian, Iraqi, and Somali refugees expressed a strong preference for female providers administering cancer screening, with most reporting refusal of screening from male providers due to past sexual assault (Nassur et al. 2025). Cancer screening services in populations who have faced prior trauma need to consider operational aspects of a programme and the personnel delivering the cancer screening tests to reduce cancer screening disparities.

Operational components were frequently discussed as a barrier. Older women often faced short sentences (Besney et al. 2018), so if they did receive cancer screening whilst in

prison, they never received the results as they had often been released before the results were available (Against Violence and Abuse AVA 2019; Besney et al. 2018; Magee et al. 2005). Transitional care to the community is an area needing development, and despite there being pockets of good practice, it is not universal across the studies and women are left to start healthcare arrangements again on their own once back in the community (Besney et al. 2018; Hewson et al. 2024). This is problematic if they do indeed need further diagnostic tests to confirm a screening result and treatment.

Many studies reported a lack of communication, poorly coordinated care, and complex booking systems the women simply could not navigate. The reasons for these included shortages of staff, reduced capacity in prison, and lack of funding (Against Violence and Abuse AVA 2019; Besney et al. 2018; Magee et al. 2005; Hewson et al. 2024). In addition, the nature of the setting—lack of privacy and cleanliness of the facility—prevented engagement (Against Violence and Abuse AVA 2019; Magee et al. 2005). These barriers are not unique to older women in prison. Health-system-level barriers have been identified frequently in the literature for Travellers who transition between different communities (Fox et al. 2025; Luchenski et al. 2018). Availability, timeliness, and length of primary care appointments were all identified as barriers to cancer screening uptake in the Traveller population. Results and follow-up care were often miscommunicated (Fox et al. 2025; Luchenski et al. 2018).

The literature did identify several enablers found to increase the uptake of cancer screening in older women in prison. Increasing knowledge and understanding through effective communication is important in increasing accessibility. It is clear in this scoping review that older imprisoned women require different engagement to the rest of the prison population (Price 2024; Aday and Farney 2014; Against Violence and Abuse AVA 2019; Besney et al. 2018; Di Giuseppe et al. 2022; Magee et al. 2005; Mantell et al. 2025; Mehta et al. 2020; Nijhawan et al. 2010; Pickett et al. 2018; da Silva et al. 2017; Hewson et al. 2024); this is not any different to the female older population in the general population (Luchenski et al. 2018). Effective health care messaging for older adults requires changing communication styles and addressing diverse needs and abilities so that information is presented in a way that is relatable and can be understood by an older woman in prison (Magee et al. 2005). Whilst not identified in this scoping review, a systematic review looking at patient-reported factors associated with older adults' uptake of cancer screening has shown that involving older people in their decision making and having a communication strategy addressing understanding of risk help with cancer screening uptake (Smith et al. 2021).

Adding to this, peer support was identified as an effective way to build knowledge, self-confidence, and skills to navigate health screens both in prison and in the community. Often older women feel they trust fellow prisoners at a greater depth compared to staff (Against Violence and Abuse AVA 2019; Hewson et al. 2024). In addition, if a family member or friend had received cancer screening, the women were more likely to engage with cancer screening themselves (Di Giuseppe et al. 2022). Trusted advocates of health promotion activities such as cancer screening are critical when working with vulnerable populations. This approach of social network-based advocacy groups has been used for many health inclusion groups across the world (Wagner et al. 2023).

Operationally, having appropriate health care workers, with supportive attitudes, acts as an enabler to cancer screening uptake in older women in prison (Price 2024; Against Violence and Abuse AVA 2019; Besney et al. 2018; Hewson et al. 2024). When a staff member has capacity to build a relationship, identify eligible prisoners, invite them to be screened, support them with information, and communicate with them about appointments, results, and follow up, older female prisoners are happier with the process and are more likely to engage (Price 2024; Against Violence and Abuse AVA 2019; Besney et al. 2018; Hewson et al. 2024). Similarly, when there was a purpose-built health wing, with private

examination rooms, clean environments, and helpful staff, older females sought healthcare more frequently and a larger percentage had up-to-date screening records (Besney et al. 2018). In line with this finding, mobilising health care was found to increase cancer screening uptake. Bringing screening units inside prisons was felt to be more dignified by older female prisoners as they did not need to be seen chained to an officer in public (Price 2024; Pickett et al. 2018). This is in keeping with other research reporting that some Gypsies, Roma, and Travellers feel stigma attached to cancer screening going into health care settings they are not familiar with (Fox et al. 2025). Mobile screening units in the community alleviate some of the feelings of stigma in this population (Fox et al. 2025). In the UK and USA, commissioners of health services support mobile health screening teams and units to enter prisons. This model relies on collaboration between prison healthcare teams and local public screening services (Public Health England 2021; Intermountain Health 2025). In contrast, in India, a non-profit organization called "Vishwanath Cancer Care Foundation" provides mobile cancer screening for women in prison in Madhya Pradesh (Kidwai 2023). Whilst it is not possible to analyse the difference in effectiveness of models in this review, we do know from this review that uptake of screening in older female prison populations depends on trust and accessibility. Charities often can engage individuals through a range of activities and prioritise building trusted relationships (Chien et al. 2020), while older women in prison often do not trust staff from health services due to prior experiences. Further work could consider reviewing the effectiveness and acceptability of different models in various contexts to enhance cancer screening service in prisons across the world.

This study has many implications for future work. Given the consistent finding that low literacy and understanding of cancer and importance of screening act as key barriers to accessing cancer screening in older female prison populations (Against Violence and Abuse AVA 2019; Di Giuseppe et al. 2022; Magee et al. 2005; Mehta et al. 2020; Nijhawan et al. 2010), cancer screening programmes delivered by health care staff and non-profit organisations should adopt age-appropriate, plain language, non-written communication strategies. This could include verbal invites, visual aids, and one-to-one explanations. Evidence from both prison and community inclusion health programmes highlights that addressing knowledge gaps and tailoring communication for older adults improve screening uptake (da Silva et al. 2017; Hawkins et al. 2024).

Secondly, we have explored the nature of personal histories and trauma and the implications this has for women accessing screening (Price 2024; Aday and Farney 2014; Besney et al. 2018). Evidence from inclusion health populations, including refugees who have experienced sexual abuse, demonstrates that access to female health care providers and a trauma-informed approach support women to have the confidence to engage with health care (Nassur et al. 2025). The trauma-informed approach involves careful prioritisation of female workers, continuity in care, and individual choice-based interactions.

Operationally, dedicated health staff who have time, access to robust co-ordination systems, and appropriate physical environments are important. An audit of this and consultation with prisoners who experience the environment in each prison will help make local changes (Besney et al. 2018; Hewson et al. 2024). Purpose-built health spaces and streamlined referral processes are important recommendations. If it is not possible to have a dedicated health space, evidence from the UK and USA supports collaborative models between prison health care teams and public screening services using mobile units (Public Health England 2021; Intermountain Health 2025). Bringing services directly to the prisons is perceived as more dignified and accessible for older women.

Finally, there is a large absence of research from lower–middle-income countries (LMICs). This is an important evidence gap as the majority of global cancer deaths occur

in these countries (Pramesh et al. 2022). Future research should consider context-specific evaluations of cancer screening barriers and enablers in older female prisoners in LMICs, differentiating between the different cancer types and different processes of screening.

5. Conclusions

This is the first scoping review assessing barriers and enablers in cancer screening in the older female prison population. The review was robust and ensured systematic collection of relevant papers, using Arksey and O'Malley's framework (Arksey and O'Malley 2005). The number of studies included was relatively low (12), indicating more work needs to be focused in this area.

The findings regarding barriers and enablers within the categories of personal, accessibility, and operational provide a basis for health providers to consider in the design and development of prison health services moving forward. We highlight differences in what the older female population needs compared to the rest of the prison population, identifying that a more person-centred approach is required with additional research at local levels. Furthermore, staff lack capacity to support these varying needs to increase uptake of cancer screening. Training for staff, awareness raising around older women's needs, and targeted cancer screening promotion are suggested actions for the women's prison estate. It would be beneficial to develop a more comprehensive data collection tool for cancer screening invite/uptake to monitor progress but also to make identifying eligible participants easier. Best practices for prisons who have higher rates of cancer screening uptake in the older female population can be shared.

Older women in prison are likely to be at increased risk of a range of cancers (Cancer Research UK 2020; Heidary et al. 2013; Armes et al. 2024; Brousseau et al. 2019) and yet are less likely to have been screened than their peers in the community. It is vital the population are supported to increase their engagement with cancer screening. The results from this scoping review provide a baseline to consider regarding staffing, communication, peer support, and processes to improve the experience of the older prison population. The particular dearth of research in this area—older women are a small and neglected minority within a larger marginalised population—should also be addressed to ensure the appropriate and effective development of cancer screening services.

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Appendix A

Table A1. Search terms.

Search terms used for database search
(Incarcerat* or imprisoned or prison* or convict* or criminal* or inmate* or jail*).m_titl.
(Prisons* or correction centre* or jail* or penitentiary* or detention centre* or correctional facility*).m_titl.
(Cancer screening* or tumour* or neoplasm* or malig* or carcinoma in situ* or cancer diagnosis* or primary healthcare* or cancer incidence* or cancer prevention* or healthcare delivery*).m_titl.
(older* or senility* or declining years* or old age*).m titl
Female*).m titl

Appendix B

Table A2. Study characteristics.

Authors (Year and Country)	Title	Study Type	Aim of Study	Sample Size	Age Range	Type of Cancer for Screening	Screening Prior, During, After Imprisonment
1. (Aday and Farney 2014) (United States)	Malign Neglect: Assessing Older Women's Health Care Experiences in Prison	MM	The aim of this study is to identify health needs through personal accounts in order to capture the challenges of gaining access to medical services and how such barriers influence social and psychological well-being.	327 female prisoners	50–77	-	In prison
2. (Against Violence and Abuse AVA 2019), (UK)	An evaluation of Women in Prison's Health Matters Project	MM	The aim of this study is to provide a review of all the data collected through the duration of the Health Matters project.	838 female prisoners	-	Not stated	In prison
3. (Besney et al. 2018) (Canada)	Addressing Women's Unmet Health Care Needs in a Canadian Remand Center: Catalyst for Improved Health?	MM	The aim of this study is to identify the prevalence of women's unmet health care needs and to examine women's and health care staffs' perceptions of the incorporation of a Women's Health Centre.	109 female prisoners attended the clinic, and 11 participated in focus groups	18–50+ (3 are 50+)	Cervical cancer	In prison
4. (Di Giuseppe et al. 2022) (Italy)	HPV Vaccination and Cervical Cancer Screening: Assessing Awareness, Attitudes, and Adherence in Detained Women	CS	The aim of this study is to assess awareness, attitudes, and behaviours concerning HPV infection and cervical cancer, with specific attention paid to preventive measures including HPV vaccination and cervical cancer screening.	214	18–77	Cervical cancer	Prior to imprisonment In prison On release
5. (Magee et al. 2005) (California)	Preventive Care for Women in Prison: A Qualitative Community Health Assessment of the Papanicolaou Test and Follow-Up Treatment at a California State Women's Prison	QU	The aim of this study is to investigate the experiences of women in prison with the Pap test and follow-up treatment process, medical and service providers' perceptions of that process, and recommendations for improvements.	35 female prisoners, 6 women prisoners in leadership positions, and 4 service providers and researchers	26–74	Cervical cancer	In prison

Table A2. *Cont.*

Authors (Year and Country)	Title	Study Type	Aim of Study	Sample Size	Age Range	Type of Cancer for Screening	Screening Prior, During, After Imprisonment
6. (Mantell et al. 2025) (Australia)	A critical realist analysis of digital health screening for older people in prison	QU	The aim of this study is to explore the underlying mechanisms that may impact future adoption of more holistic digital health screening of older people in prison.	33 (7 focus groups) 6 45+ females	45+	-	In prison
7. (Mehta et al. 2020) (North India)	Cervical cancer screening behind bars: A woman's right	CS	The aim of this study is to screen female prisoners for cervical cancer using visual inspection with the acetic acid method.	181	21–60	Cervical cancer	In prison
8. (Nijhawan et al. 2010) (United States)	Preventive healthcare for underserved women: Results of a prison survey	CS	The aim of this study is to determine the preventive healthcare needs of women in cervical cancer and breast cancer screening, sexually transmitted infection (STI) screening, hepatitis screening and vaccination, and smoking cessation.	99 (33 over 40)	18–40+	Not stated	In prison
9. (Pickett et al. 2018) (United States)	Breast Cancer Risk among Women in Jail	CS	The aim of this study is to analyse data from the SHE project to identify what proportion of incarcerated women have up-to-date breast cancer mammography since the change in USPSTF recommendations for biennial screening mammograms starting at the age of 50 years.	261	50+	Breast cancer	Prior to prison and whilst in prison
10. (Price 2024) (UK)	Growing old and dying inside: improving the experiences of older people serving long prison sentences	MM	The aim of this study is to highlight the difficulties faced by the increasing number of older people serving long sentences.	Unknown	-	Not stated	In prison and on release

Table A2. *Cont.*

Authors (Year and Country)	Title	Study Type	Aim of Study	Sample Size	Age Range	Type of Cancer for Screening	Screening Prior, During, After Imprisonment
11. (da Silva et al. 2017) (Brazil)	Screening for cervical cancer in imprisoned women in Brazil	CS	The aim of this study is to investigate the state of cervical cancer screening and the interventions geared toward its control among imprisoned women in Mato Grosso do Sul.	510 female prisoners participated in interviews, and 352 female prisoner's records were analysed	(46–50+)	Cervical cancer	In prison
12. (Hewson et al. 2024) (UK)	Long-term physical health conditions in older adults in prison: a brief report from a nominal group	QU	The aim of this study is to identify current practice, areas of difficulty, and potential improvements to support the health and social care needs of older women in prison.	12 professionals	-	Not stated	In prison and on released

Study Type: CS—cross-sectional, MM—mixed-methods, QU—qualitative.

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