ELECTIVE (SSC5a) REPORT (1200 words)

A report that addresses the above four objectives should be written below. Your Elective supervisor will assess this.

Objective 1

Globally, cervical cancer is the 4th most common cancer in women [(1)]. In 2020, there were around 604,000 diagnoses and 342,000 deaths [(1)]. Approximately 90% of the cervical cancer cases are in low- and middle-income countries, the reason for this is multifactorial, but it is in part due to human papilloma virus (HPV) vaccination and screening being less accessible and management options being limited [(1)]. In high income countries the introduction of screening programme has more than halved the incidence and mortality of cervical cancer over the past 30 years [(2).]

The World Health Assembly have outlined a global strategy to eliminate cervical cancer, where elimination is defined as <4 cases per 100,000 women per year. To achieve this the World Health organisation has established the 90-70-90 targets [(3)]:

- 90% of girls fully vaccinated by age 15
- 70% of women screened by age 35 and again by 45
- 90% of women with cervical disease receive treatment

In the UK, there were approximately 3200 new diagnoses of cervical cancer per year according to data from 2016-2018 [(4).] The peak incidence is in women aged 30-34 and it is the 2nd most common cancer in women under 35 years old in England [(5)(6)].

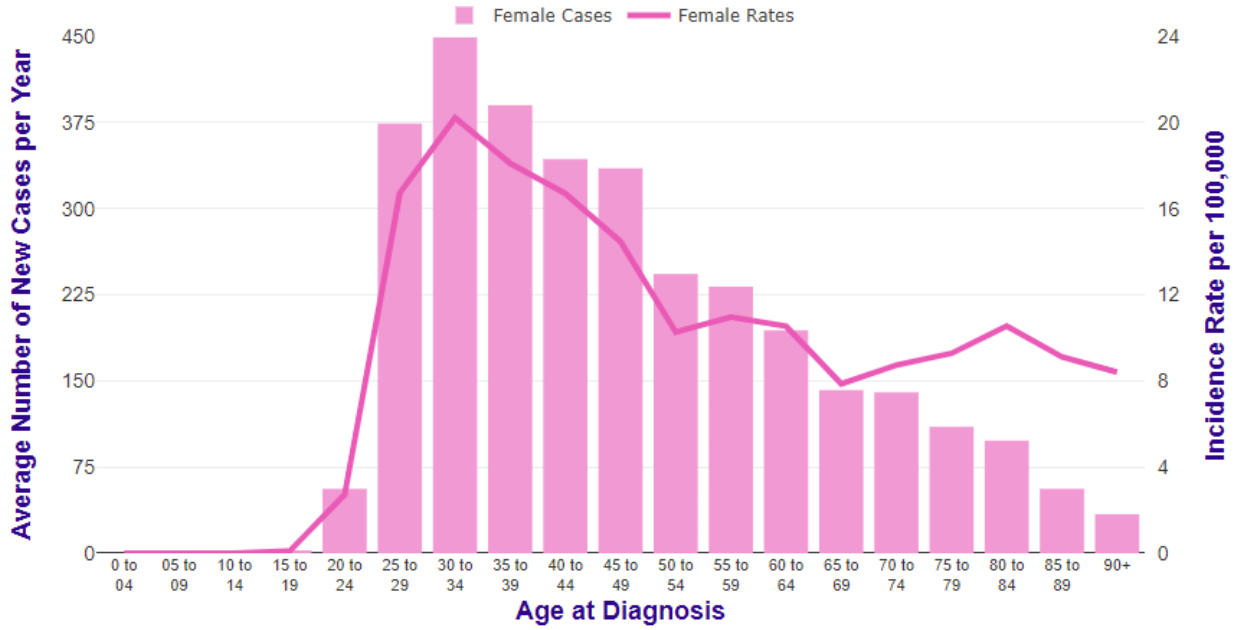


Figure 1. Average number of new cases per year and age-specific incidence rates per 100,000 female population in the UK, using data from 2016 to 2018 [(4)]

Falcaro et al performed a study in England, which looked at the effect of HPV vaccination on the incidence of cervical cancer and grade 3 cervical intraepithelial neoplasia [7]. The study showed an estimated relative reduction in cervical cancer of [7]:

- 34% when the vaccine is offered at age 16-18
- 62% at age 14-16
- 87% at age 12-13

When compared to an unvaccinated cohort. These findings support the idea that HPV vaccination will continue to decrease the incidence of cervical cancer.

Since the introduction of the NHS Cervical Screening Programme in 1988 there has been a significant reduction in cervical cancer mortality [8]. It saves an estimated 5000 lives a year [8]. 6 in 10 women diagnosed with cervical cancer in England survive for five years or more [5]. However, around 2 women still die of cervical cancer everyday and with 99.8% of cases being preventable there is still more work to be done [6].

Objective 2

In the UK, women are invited for their first smear aged 24.5 years [9]. The programme is offered to women aged 25-64 [9]. They are invited for regular cervical screening to detect abnormalities which if left undetected and untreated could develop into cervical cancer [10]. The frequency of screening is determined by age (age 25-49 3-yearly screening; age 50-64 5-yearly screening) and by the screening result e.g. abnormal or inadequate smear result prompts more regular screening.

In December 2019, the UK implemented the HPV primary screening, where samples are tested for high-risk HPV first and cytology is only assessed in those that are positive [10].

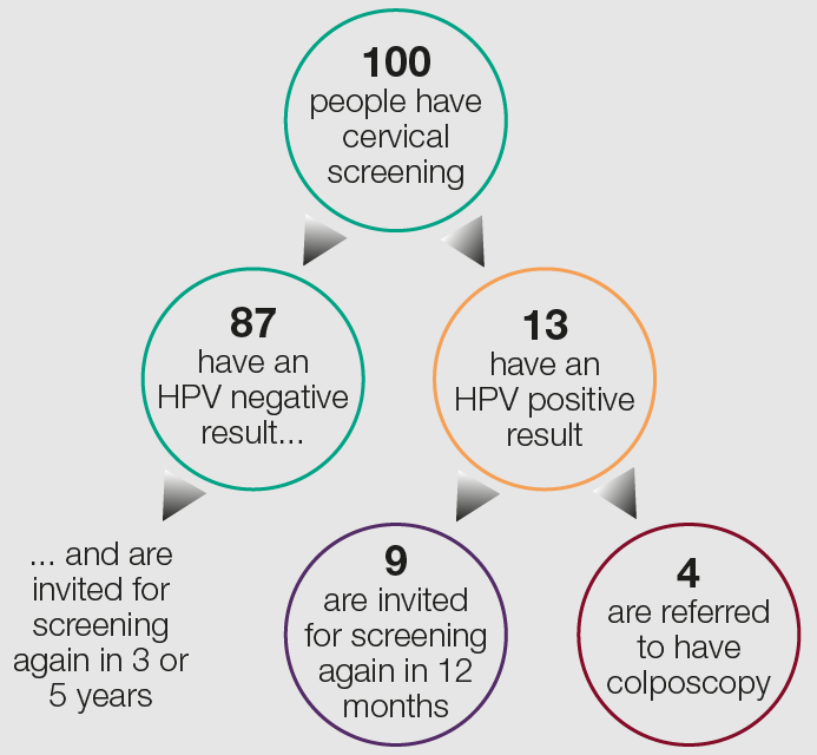


Figure 2. Diagram showing the results for every 100 people who have cervical screening [10]

Screening coverage is the percentage of eligible individuals who were screened adequately within a given time period [9]. There has been a decline in cervical screening coverage over the past 10 years, see figure 3 [10]. With recent data showing that almost 1 in 3 women do not take up their screening offer [12].

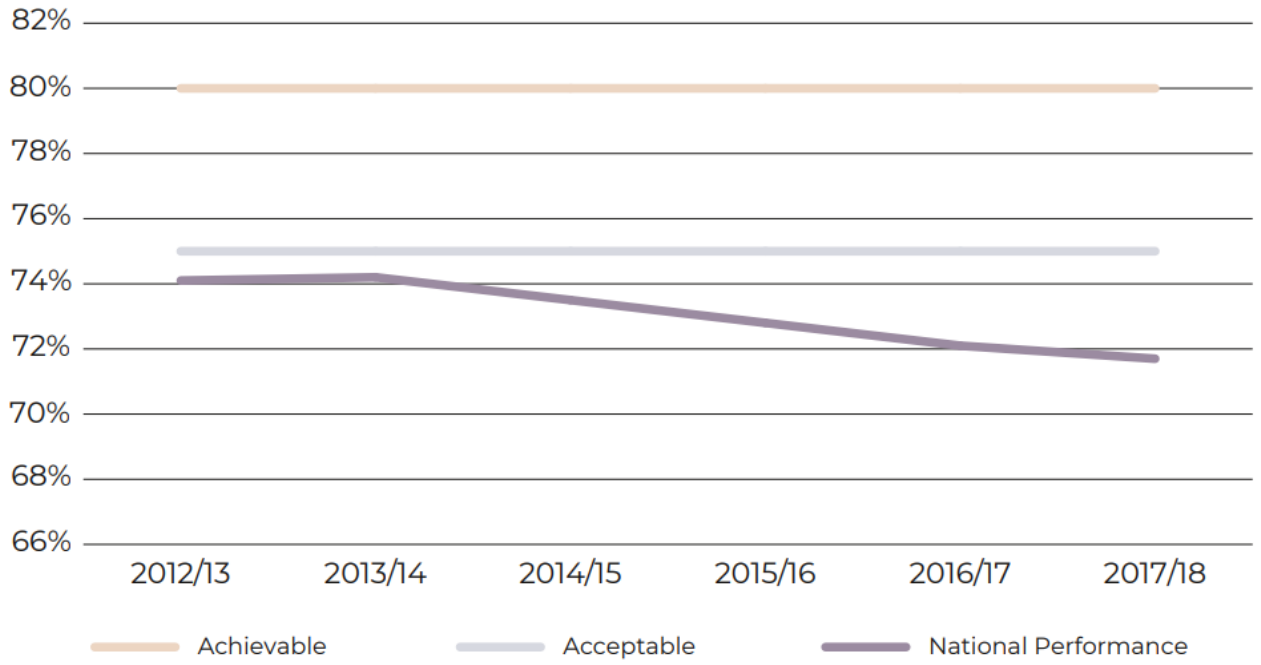


Figure 3. Percentage of people aged 25 to 64 attending cervical screening within a target period [9]

An acceptable performance is a screening coverage of 80% or more [9]. In the UK, from 2020 to 2021 the screening coverage was only 70.2% [10]. In March 2021, no local authority achieved the acceptable performance level, see figure 4 [9].

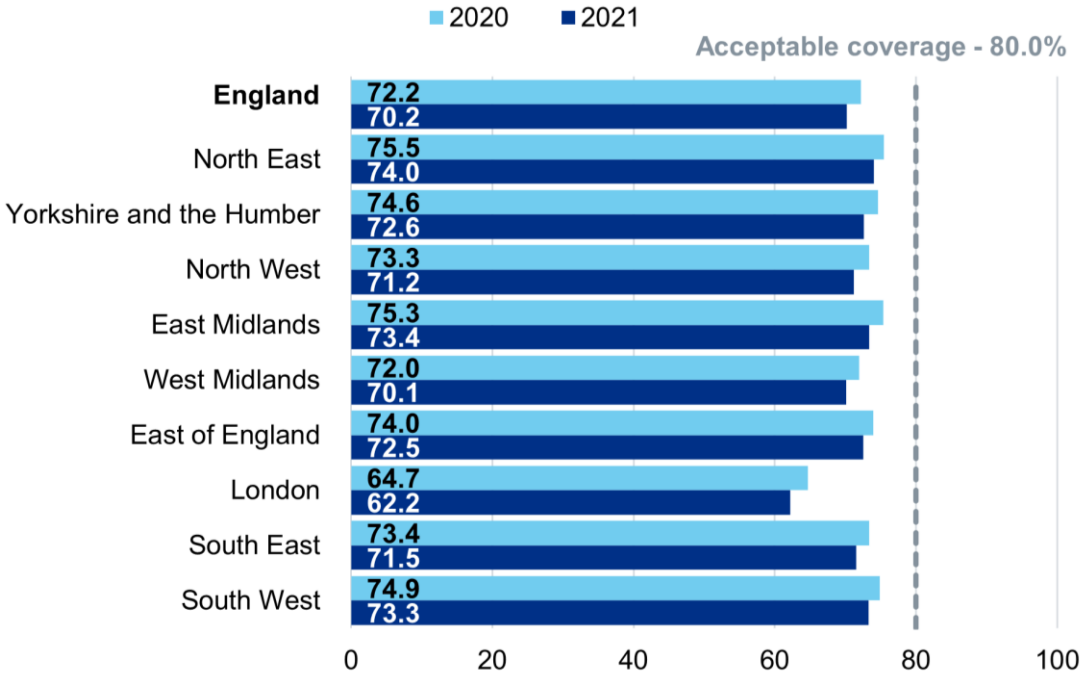


Figure 4. Bar chart illustrating percentage coverage of cervical screening by region in March 2020 and 2021, ages 25 to 64 [9]

Cancer Research UK lists some groups with lower screening uptake [10]:

- Individuals aged 25-29 or over 50, see figure 5
- Areas of high deprivation, see figure 6
- Learning or physical disabilities
- Ethnic minority groups
- Lesbian and bisexual people
- Transgender community

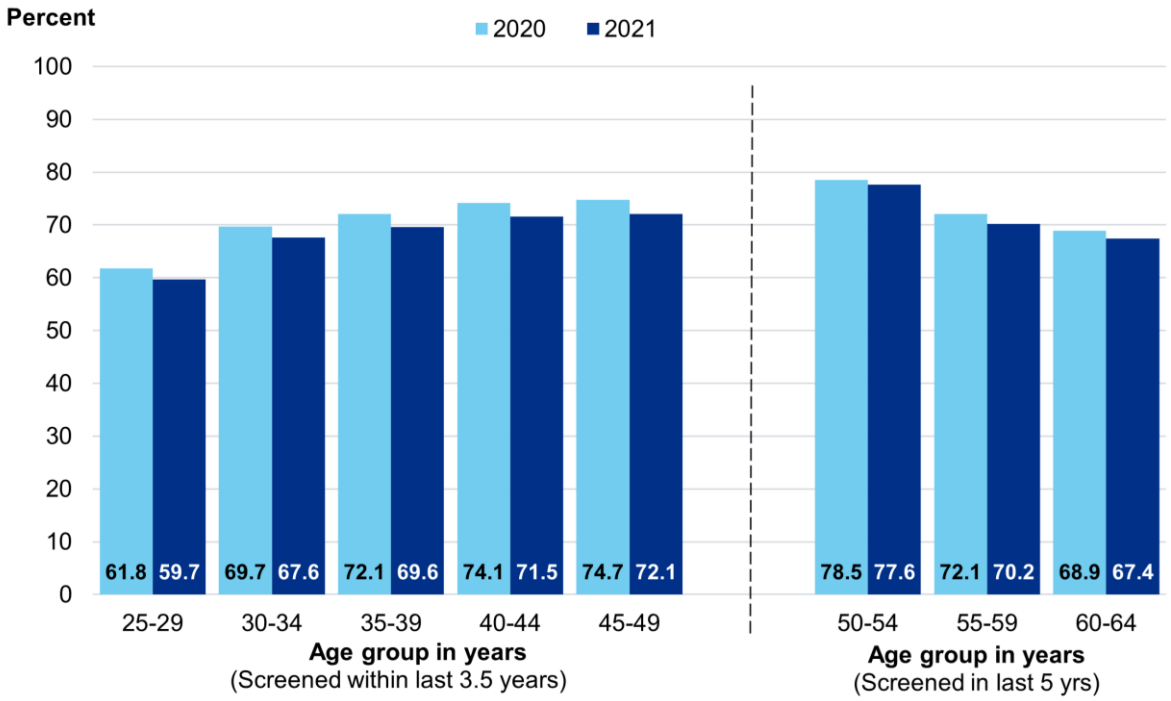


Figure 5. Bar chart showing screening coverage by age in England, 2020 and 2021 [9]

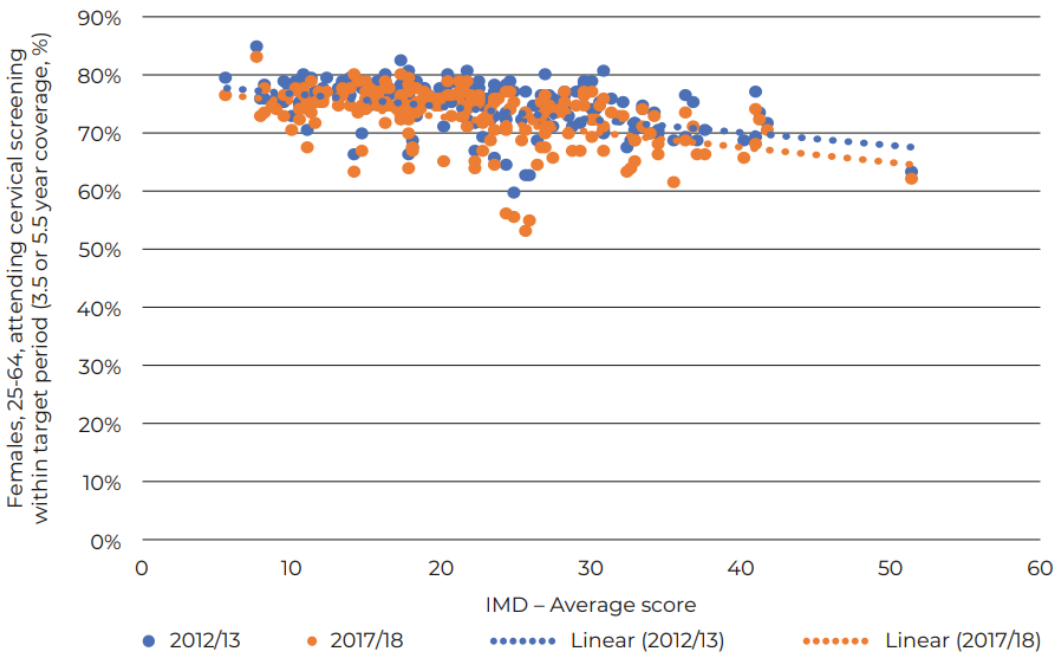


Figure 6. Graph showing the relationship between index of multiple deprivation and screening coverage by CCG [11]

Screening programmes are public health interventions which should be inherently equitable [13]. However, the cervical screening programme is leading to underscreening of certain populations. In 2018, Public Health England published a screening inequalities strategy to address the barriers preventing people from engaging with screening when they would like to [13]. It is a public health responsibility to prioritise tackling these barriers and achieve equality for underserved groups.

Objective 3

The Jo's Trust and Cancer Research UK websites list some of the main barriers to attending cervical screening [14]:

- Embarrassment
- Pain- particularly post-menopausal women
- Relevance- perceived low risk
- Fear of results
- Judgement
- Convenience
- Physical disability
- Trauma FGM
- Lack of understanding
- Not being registered with GP e.g. homeless

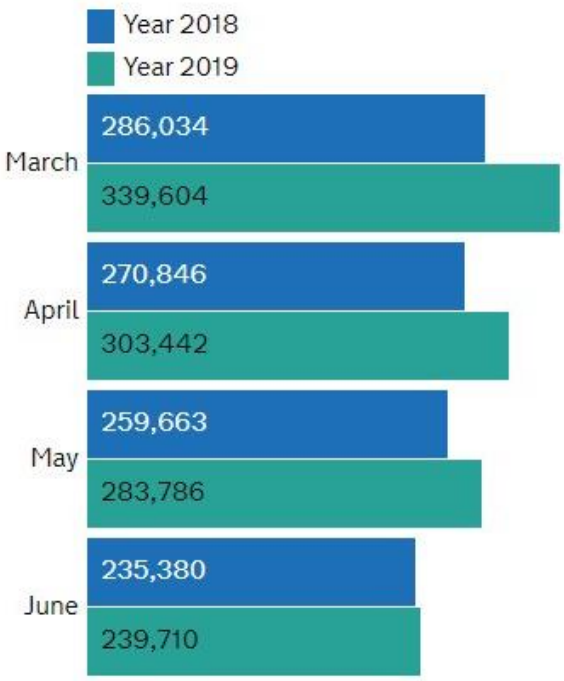
The Department of Health and Social Care ran a survey to highlight the main reasons preventing individuals from attending cervical screening [12]. 3000 responses were received, and embarrassment was noted as one of the most common barriers, stated by 42% of respondents [12]. Tackling embarrassment requires an integrated approach including education in schools about vulva variation and normal discharge. This normalisation of female genitalia is being tackled by art installations such as Jamie McCartney's *The Great Wall of Vagina*. 15% of lesbian or bisexual women had never had a smear test compared to only 7% of women in general [12]. Conversely, 81% stated that the healthcare worker performing the test put them at ease and 89% said they were glad they attended and would encourage others to attend [12].

The uptake of cervical screening is lower in the transgender and non-binary (TGNB) community [15]. One of the main reasons for this is that if a trans man is registered as male on the NHS system, they are no longer invited for screening [15]. Other barriers encountered are gender dysphoria and experienced stigma. Some interventions which could improve uptake of cervical screening among TGNB individuals with a cervix include mixed waiting rooms at sexual health clinics, TGNB targeted screening information, trans-specific healthcare clinic, appropriately worded invitations and self-sampling for HPV [16].

Features of a good screening programme include [11]:

- Acceptability
- Awareness
- Convenience and accessibility
- Reminders

Acceptability of the cervical screening programme could be improved by offering people with a cervix the option of HPV self-sampling. In the Netherlands, women who do not attend their first GP screening appointment are sent a self-sample kit [11]. A randomised control trial from Australia showed that HPV self-sampling improves participation among never screened and under screened individuals [17]. The London study, HPValidate, assessing the validity of self-sampling began in early 2021, if it is successful it could lead to this becoming part of the national screening programme, results are due this year [18]. In 2015, the 'No Fear' campaign was launched to reduce fear around cervical screening. It provided practical tips for women including booking back-to-back appointments, requesting a female nurse, text reminders, online appointment booking and out of hours services [11]. All practices which participated saw an increase in uptake ranging from 0.6% to 6% [11].



Awareness of cervical cancer screening has been promoted by public health campaigns including The Help Us Help You – Cervical Screening campaign (2022) and the Cervical Screening Saves Lives campaign (2019). The latter ran from March 2019 to April 2019 [19]. The impact of the campaign was assessed using data from the national screening programme in England, see figure 7.

Figure 7. Bar chart showing the increase in samples received by laboratories in England in 2019 following the Cervical Screening Saves Lives campaign [19]

The convenience and accessibility of cervical screening could be improved by offering screening in the workplace, mobile screening units, screening at sexual health clinics and evening and weekend clinics [11].

Reminders can increase the number of individuals attending screening. In 2018, NHS London invited GP practices to participate in a text message reminder project [11]. 97% of practices agreed to participate and uptake of screening increased by 5.9% in women aged 50-64 and by 4.8% in women aged 25-49 for those who received a reminder [11].

Objective 4

I completed e-modules from BMJ learning on chlamydia, candida, gonorrhoea, bacterial vaginosis, trichomonas vaginalis and non-specific urethritis. I attended sexual health and HIV clinics, where I shadowed different members of the team including: doctors, nurses, clinic co-ordinators and reception staff.

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