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Prevalence of Cervical Cancer in Colonial War Memorial (CWM) Hospital from 2016-2023

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Abstract: Cervical cancer is the fourth most common cancer in women globally, with 660,000 new cases reported in 2022 and 350,000 deaths. This study examined cervical cancer prevalence at Fiji's Colonial War Memorial Hospital (CWMH) from June 2016 to December 2023. The overall prevalence was 0.35%, with notable fluctuations: a significant rise from 2016 to 2017, stability until 2019, a COVID-19-related drop in 2020, and a gradual increase by 2023. Of the 352 diagnosed women, 74.15% were Fijian, 21.88% were of Indian ethnicity, and 2.27% were from other groups. Fijian women exhibited higher mortality. The majority (52.55%) of cases occurred in women aged 31-50, peaking at 41-45. Pap smear results showed 87.39% were negative, 11.01% were "Other," and 1.60% indicated epithelial cell abnormalities. The study highlights the persistent need for enhanced cervical cancer screening and prevention in Fiji.

Keywords: *Cervical Cancer, Prevalence, Bethesda System, Cervical Intraepithelial Neoplasia.*

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I. INTRODUCTION

One of the most feared illnesses of the 20th century, cancer is continuing to spread and has become increasingly prevalent in the 21st century. Every fourth individual in 100,000 has a lifelong risk of cancer as this is very concerning (Roy & Saikia, 2016). Cancer continues to be an enduring and quickly changing focus of medical study as well as treatment worldwide, as it is the second greatest cause of death. The genesis of cancer cells, the development of malignant tissues, along with the processes by which these tumours proliferate and relapse, but the disease is still unknown (Yin et al., 2021).

Cervical cancer is the fourth most frequent cancer in women globally, with 604,000 new cases recorded in 2020 (Sung et al., 2021). Looking at regional countries, it has been noted that Eastern Africa has 30.7 cases per 100,000 person per year, followed by Central Africa with 28.4 per 100,000 person per year, Southern Africa of 20.6 per 100,000 person per year and Western Africa with 11.9 per 100,000 person per year (Ibrahim Khalil et al., 2022). Interestingly, it has the terrible distinction of being the leading cancer in Fiji (*Cancer – Ministry of Health & Medical Services*, n.d., 2015). This malignancy is distinguished by the abnormal spread of intrauterine cells into the woman's reproductive system. Its primary cause is long-term infection with strains of the human papillomavirus (HPV), which is spread through sexual interaction (Kunatoga & Mohammadnezhad, 2021). Alarmingly, at least half of sexually active people will contract HPV at some point in their lives, with only a few developing cervical cancers (CDC, 2021). In light of this research, it has been highlighted that cervical cancer has been rapidly increasing, especially with individuals associated with Human Immunodeficiency Virus (HIV).

Squamous cell carcinoma and adenocarcinoma are the most prevalent histological types of cervical cancer, with squamous cell carcinoma occurring far more commonly. Adenocarcinoma accounts for roughly 5% of invasive cervical cancers globally, while this figure is increasing in some countries (Nowakowski et al.,2016). Both types are caused by precursor lesions, either CIN or carcinoma in situ (CIS). Squamous CIS and adenocarcinoma in situ (AIS) are the most common precursors of invasive cervical carcinoma. Cervical cancer should be identified from endometrial adenocarcinoma using immunohistochemistry and HPV in situ hybridization (Siegel et al., 2022).

The most prevalent histological subtypes of cervical cancer are squamous cell carcinoma and adenocarcinoma. The majority of malignancies start from the cervix's squamocolumnar junction. Anastomosing irregular nests or solitary tumour cells with stromal inflammation or desmoplasia can be seen under the microscope. Lymphovascular invasion (LVI) might also be present. Grading is based on nuclear pleomorphism, nucleoli size, mitotic activity, and necrosis, and does not correspond with prognosis (Pereira & Garey, 2020).

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Early-stage cervical cancer patients typically have no symptoms. A patient's sexual history, including the age of their first sexual experience, must be included in their full medical history. Inquiries concerning postcoital bleeding and pain during sex are also included in the sexual history questionnaire. It is crucial to ask about past STIs, such as HPV and HIV, the number of lifetime sexual partners, tobacco use, and HPV vaccine history (Zhang et al., 2020). Inquiries regarding menstruation patterns, irregular bleeding, persistent vaginal discharges, irritations, and known cervical lesions should also be made of women (Hutchcraft & Miller, 2022). A thorough assessment of the internal and external genitalia must be part of the physical examination. Women with cervical cancer may have a friable cervix, visible cervical lesions, erosions, masses, bleeding during the exam, and a fixed adnexa as positive exam result (Duavy et al., 2007). To properly evaluate and diagnose patients with cervical cancer and its precursor lesions, screening with Pap or HPV tests is crucial.

II. BENEFITS OF THE STUDY

This study intends to add to the general understanding regarding prevalence and cervical cancer screening, which will benefit individuals, educational institutions, and healthcare practitioners. Individuals who come across this study will gain useful knowledge to help them make decisions related to cervical cancer screening practices based on demographic factors such as age and ethnicity. Furthermore, this research could benefit the ministry of health with its latest statistics as the last statistics was from 2020. It will also benefit the lab as it provides insights into disease prevalence and severity, improves diagnostic accuracy, supports research efforts, and informs public health activities. Healthcare practitioners will get a better understanding of cervical cancer, allowing them to connect with communities and raise awareness about preventive measures and early detection techniques.

A. Research Question

What is the cervical cancer prevalence at CWMH from 2016-2023?

B. Aim

Cervical cancer remains a major public health concern seen around the world this is . Fiji according to the latest statistics. Despite advances in screening and vaccine efforts, the prevalence of cervical cancer remains high, needing a thorough understanding of its causes, prevention methods, and clinical outcomes. However, minimal information exists on the cervical cancer vaccine's prevalence trends, effectiveness, safety, and impact in this population (*Cancer – Ministry of Health & Medical Services*, n.d., 2015). As a result, Colonial War Memorial Hospital (CWMH) urgently needs to address these knowledge gaps to inform evidence-based initiatives and enhance cervical cancer prevention and management practices. Therefore, the study aimed to investigate the epidemiology, preventive strategies, and clinical outcomes of cervical cancer at CWMH over the period from 2016 to 2023, encompassing prevalence determination, identifying key demographic factors, and examination of prognosis.

C. Research Objectives

- To determine the prevalence of cervical cancer in CWMH from 2016-2023.
- To determine which age and ethnic groups are most prevalent in developing cervical cancer between 2016 and 2023.
- To determine the prevalence of Bethesda Classification of Cervical Cytology at CWMH from 2016- 2023.

III. STUDY METHODS

A. Study Design

A cross-sectional, retrospective quantitative design was used to evaluate the demographic factors that influenced cervical cancer patterns and assess the prevalence of Bethesda Classification of Cervical Cytology at the Colonial War Memorial Hospital (CWMH) within the eight years from 2016 to 2023. All the women who received a cervical cancer diagnosis at CWMH within the allotted time range are comprised of the study population. The data was retrieved by utilizing the CWM Hospital Laboratory Information System (LIS) in analyzing the trend of cervical prevalence.

B. Study Setting

The study was conducted in the National Cytology Centre at CWMH Suva.

C. Study Population or Sample

All data available from 2016-2023 at National Cytology Centre at CWMH Suva.

D. Data Collection Techniques and Instrument

This descriptive cross-sectional study focused on women diagnosed with cervical cancer who live in Fiji between 2016 and 2023. We retrieved cervical cancer diagnoses from all women by age, ethnicity and stages who visited CWMH for Cervical cancer screening. Using the CWMH LIS powerful infrastructure, we rigorously evaluated the obtained data to identify trends and patterns in cervical cancer prevalence and demographics. This study provided a significant insight into the epidemiology of cervical cancer by studying a large dataset spanning eight years; this was achieved through the data retrieved from the registries and LIS. We hope to help enhance cervical cancer prevention and control techniques that are suited to the particular healthcare landscape of Fiji.

To commence the research, approval from College Human Health Research Ethics Committee (CHHREC) was obtained, ensuring ethical standards. Data was then collected by reviewing laboratory registers and systematically transcribing essential information into a thorough, printed spreadsheet format. The transition from hardcopy to digital records had allowed more effective data administration and analysis. The collected data was thoroughly analysed and interpreted using Excel software, revealing trends, patterns, and insights into cervical cancer epidemiology, diagnosis,

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and treatment outcomes. Statistical analyses, including calculating p-values using chi-square tests, was employed to assess the relationships between demographic factors and cervical cancer prevalence, enhancing the robustness of our findings. This systematic methodology aimed to contribute valuable insights to the field of cervical cancer research, ultimately supporting advances in prevention, diagnostic, and treatment techniques tailored to the needs of Fiji's healthcare landscape.

E. Reliability and Validity of Methods and Tools

The data obtained from CWMH Cytology lab is reliable and valid since the data in the registers is input by professional personnel. The records were accessed with approval; therefore, it is secured. We only collected data related to our research topic, "Cervical Cancer," once we received full approval from CHHREC, the Ministry of Health and CWMH pathology department. Prejudice was prevented by utilizing all data that was logged, even discrepancies. Supervisors had validated the results.

F. Data Management

The primary investigators of this research gathered data after permission by CHHREC, Ministry of Health and CWMH pathology department. The information gathered was stored in a different hardcopy book and Microsoft Excel software. The data was only available to the primary investigators, supervisors, and year coordinator. Initial information was stored in a USB with password encrypted. After seven years, all records containing patient information will be eliminated.

G. Data Analysis Plan

Data obtained from CWMH Cytology department registers was transferred into Microsoft Excel spreadsheet revealing trends and patterns. Thereafter, the data was organized into charts and graphs spanning from 2016-2023. Additionally, the data was categorized into age, ethnicity, and stages. Prevalence of cervical cancer in CWMH within 2016 to 2023 was determined by:

$$\text{Prevalence \% in specific year} = \frac{\text{Number of positive cervical cancer cases in specific year}}{\text{Total number of screenings in specific year at CWMH}} \times 100$$

$$\text{Prevalence \%} = \frac{\text{Number of positive cervical cancer cases in CWMH}}{\text{Total number of screenings in CWMH}} \times 100$$

Moving on, prevalent of age and ethnicity in developing cervical cancer within that period was calculated by:

$$\text{Prevalent \% of specific age} = \frac{\text{Number of individuals in specific age in CWMH}}{\text{Total number of positive individuals}} \times 100$$

$$\text{Prevalent \% of specific ethnicity} = \frac{\text{Number of individuals in specific ethnicity in CWMH}}{\text{Total number of individuals}} \times 100$$

Furthermore, different stages of cervical cancer using Bethesda System during that period was determined by:

$$\text{Prevalence \% of specific classification} = \frac{\text{Number of individuals with specific classification}}{\text{Total number of individuals screened}} \times 100$$

IV. ETHICAL CONSIDERATIONS

A. Confidentiality

Ethical approval was obtained before collecting and using confidential patient information. Confidentiality was maintained as the data obtained has no names. Personal patient information is safe and available only to research investigators, supervisors, and coordinators. This data will be removed and erased after seven years.

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V. RESULTS

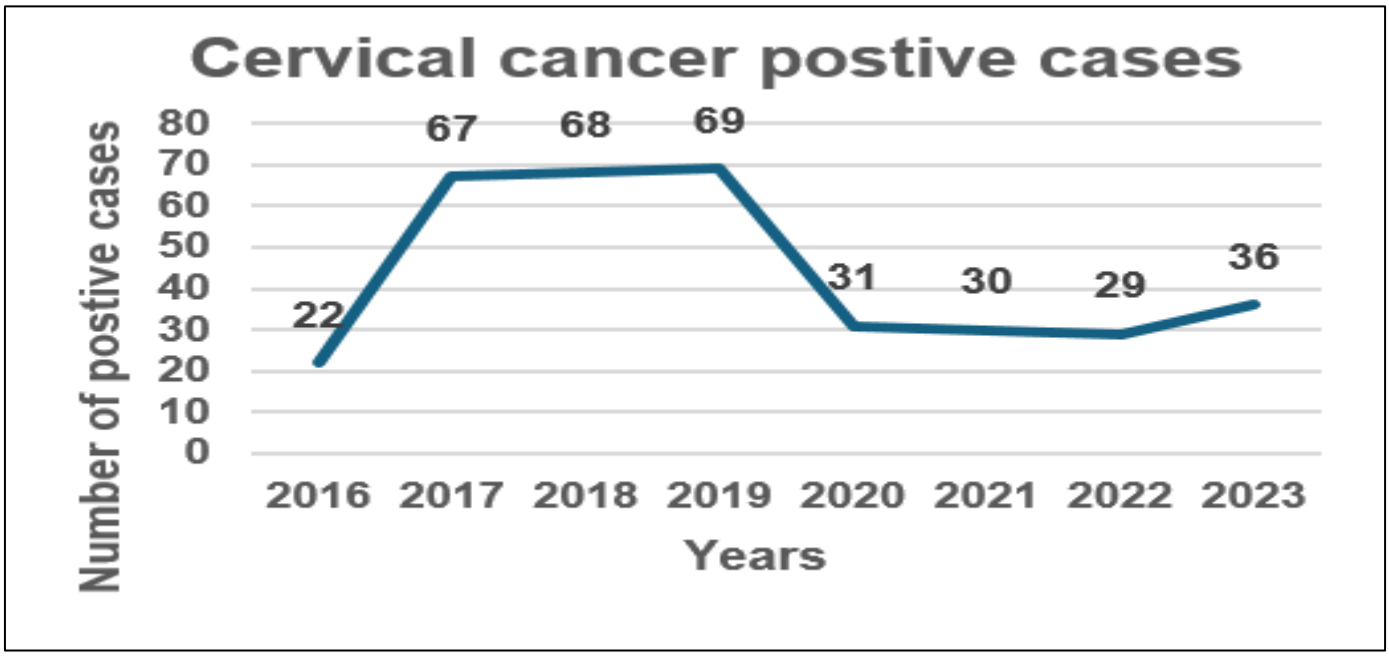

Fig 1(A): Cervical Cancer Postive Cases

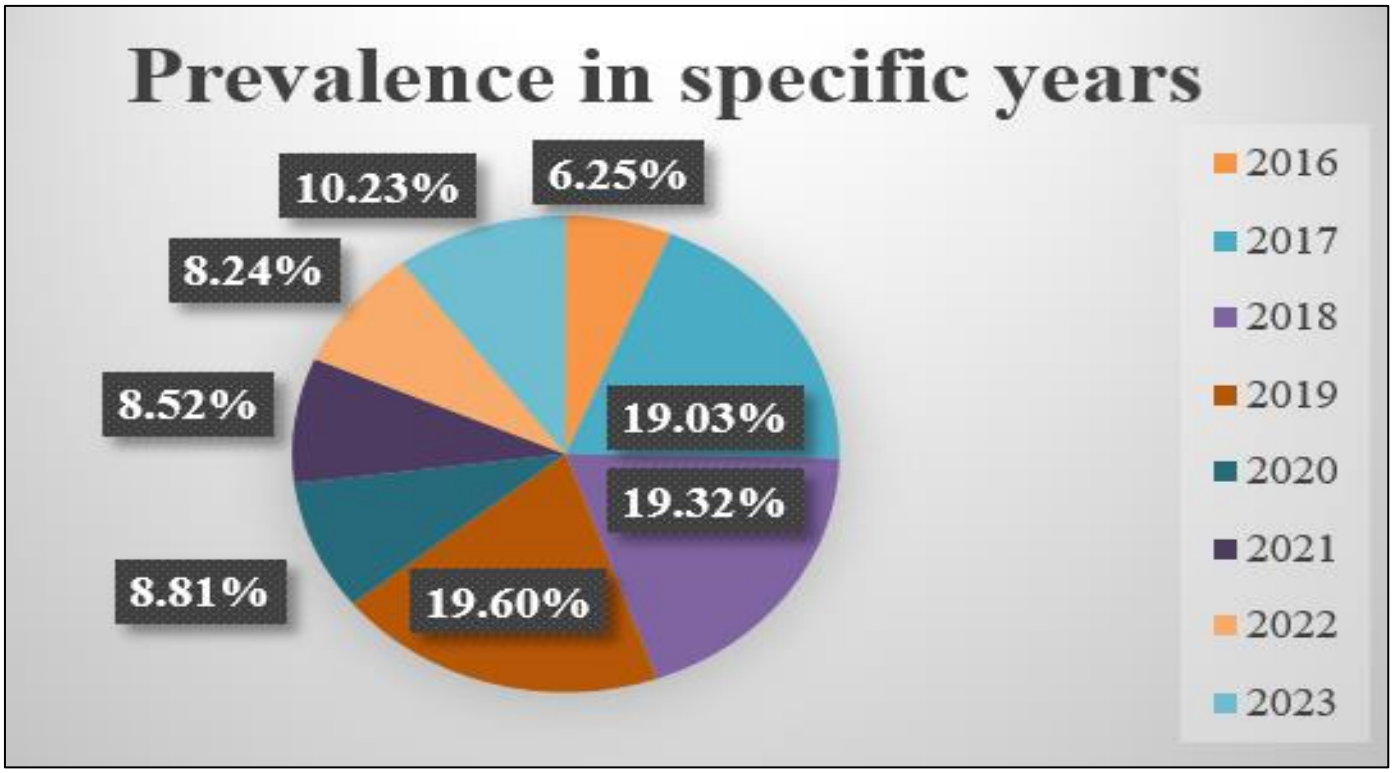

Fig 1(B): Prevalence in Specific Years

Figures 1A and B show the total number of positive cases from 2016 to 2023 in total count and percentage. From 2017 to 2019 has the highest number of positive cases with 204 individuals with 57.95%. The data shows that the number of positive cases has fluctuated over time, indicating that factors influencing infection rates have changed. Later, a drop was seen from 2019 to 2020 in the number of positive cases to 10.79%. Furthermore, it continued to decline till the year 2022, whereby a slight increase was seen in the year 2023. Overall, the trend of positive cases has decreased over the years, with a slight rise expected in 2023. This data points to prospective improvements in public health measures or changes in disease prevalence

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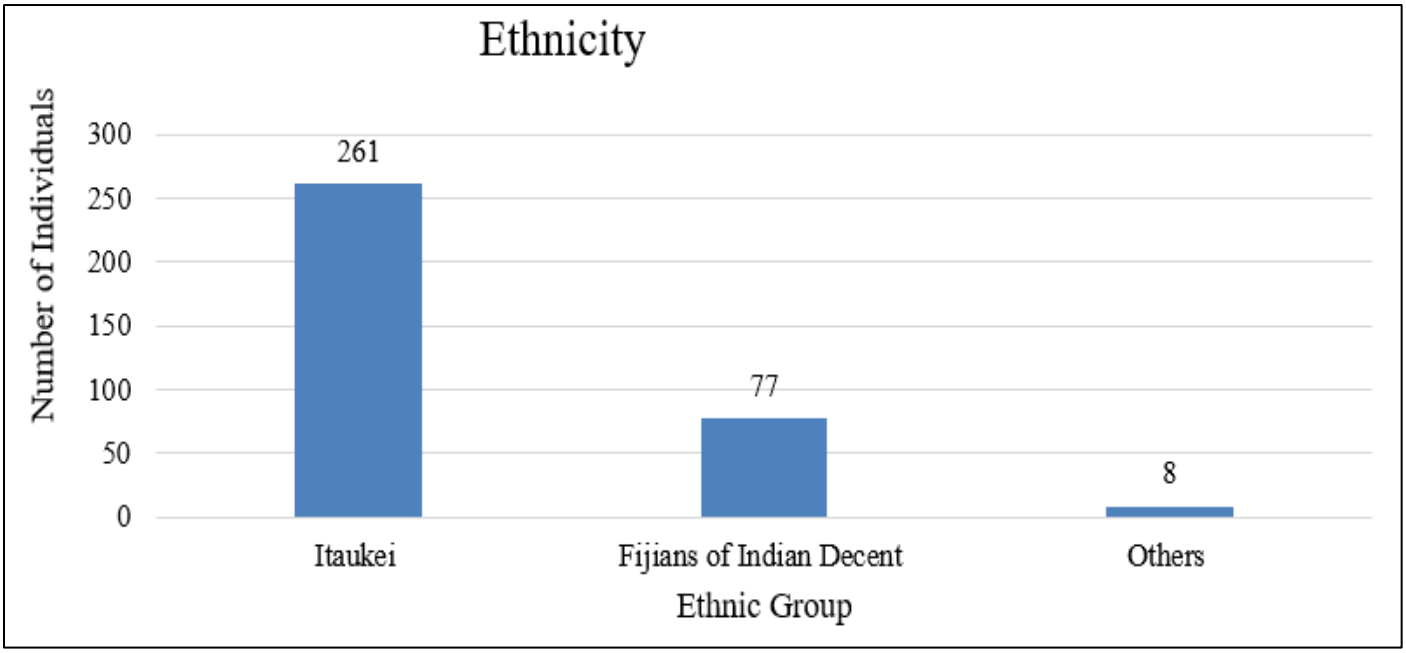

Fig 2(A): Ethnicity

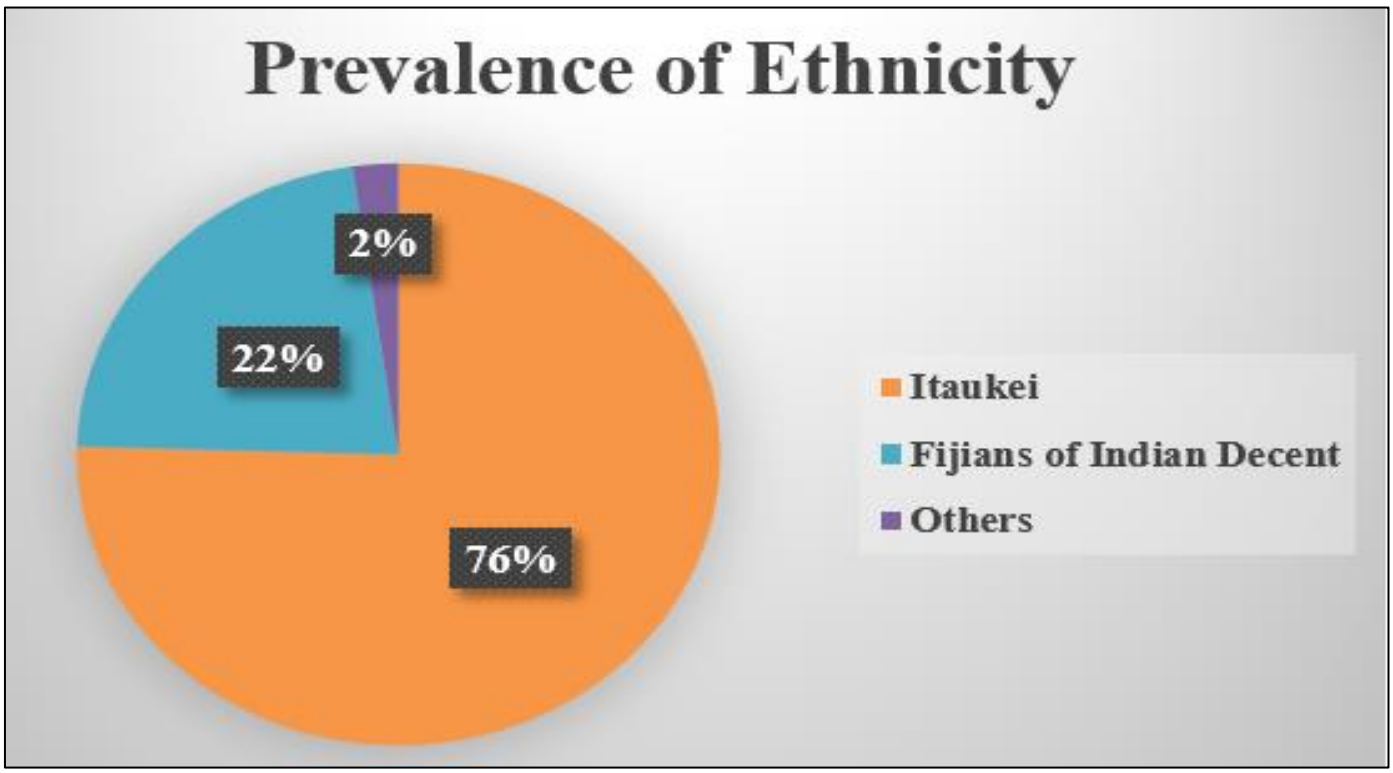

Fig 2(B): Prevalence of Ethnicity

Figures 2 A and B show the prevalence of ethnicity in positive cervical cancer cases. The results indicate that I-taukei women have the highest number of cervical cancers, with 261 cases, which makes 76% of the total cases reported from 2016 to 2023, followed by Fijians of Indian descent with 77 cases at 22% and others with 8 cases at 2%. One of the major contributors to the increased cases seen in I-taukei is the high population size. Whereby the minor contribution should have been due to cultural stigma, lack of awareness, and less access to healthcare for regular screening, as well as lifestyle factors such as sexual behavior, smoking, and diet. These findings highlight the need for targeted interventions and increased awareness among I-taukei women to address the high prevalence of cervical cancer in this population.

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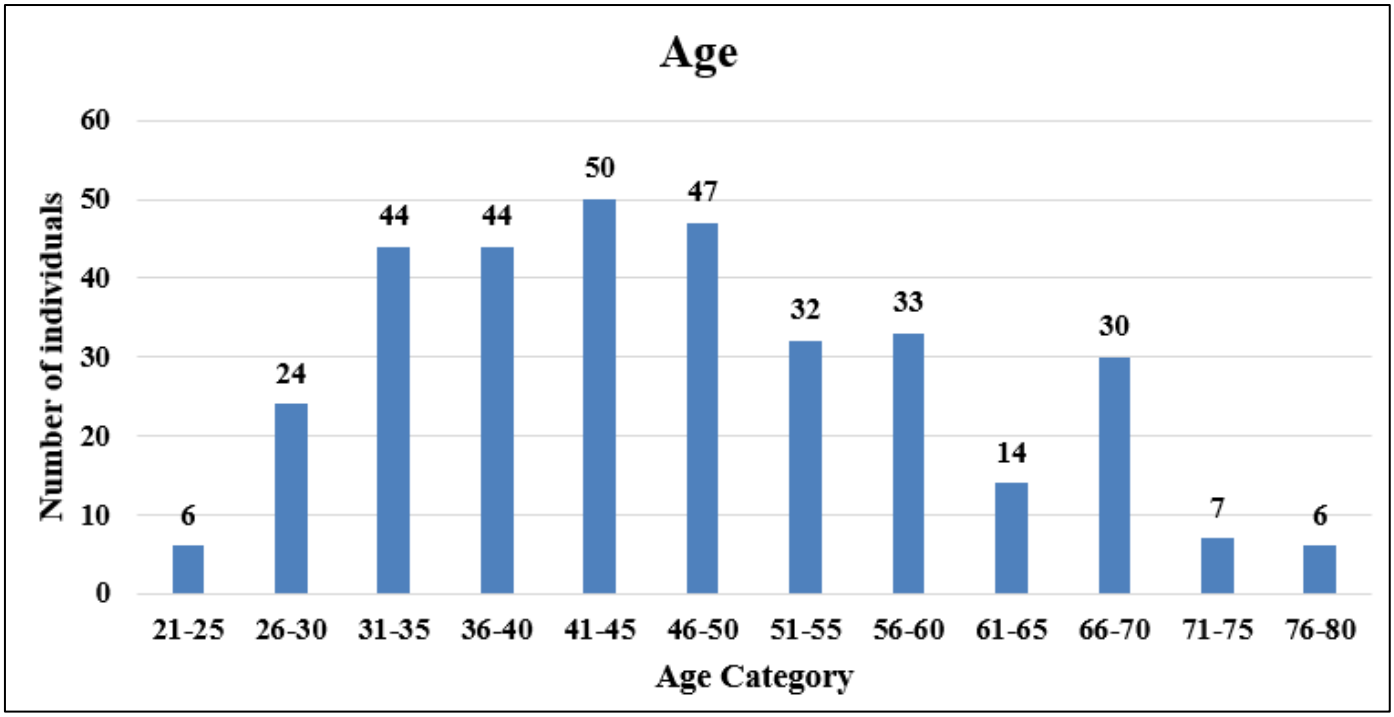

Fig 3(A): Age

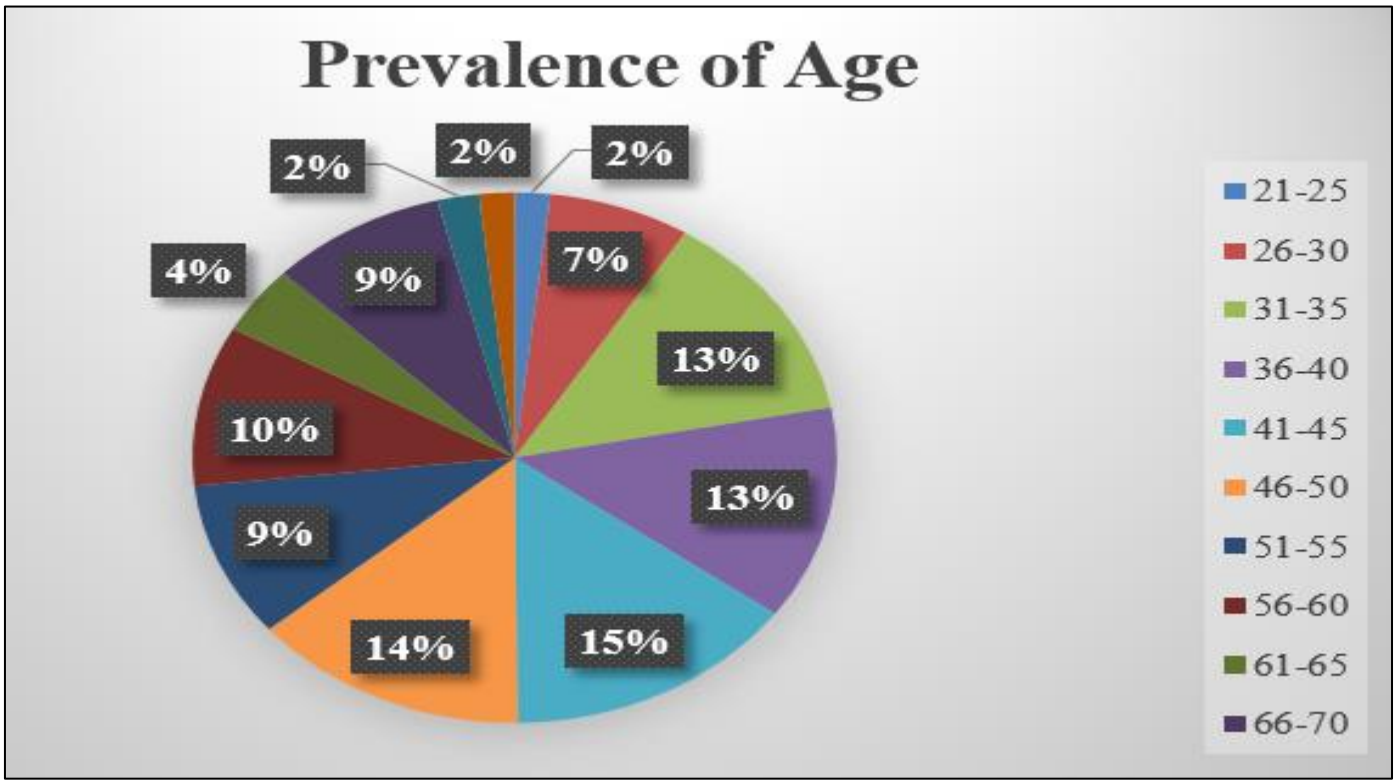

Fig 3(B): Prevalence of Age

Figures 3 A and B show the positive cases from 2016 to 2023 by different age category in total count and percentage. It has been observed that from age 31 years old to 50 years old were mostly affected by 52.55% with the highest peak from age category 41 years old to 45 years old by 14.2%. Individuals with age category from 51 years old to 60 years old were also at high risk, however, there was a decline in the cases from age category 61 years old to 65 years old by 14.49%. A peak was again seen in the age category from 66 years old to 70 years old with 8.52%. Moving on, it has been observed that age category 21 years old to 25 years old with 76 years old to 80 years old has the lowest number of positive cases with 1.70% followed by age category 71 years old to 75 years old by 1.99%. Furthermore, the NA represents the age which was unavailable for some patients.

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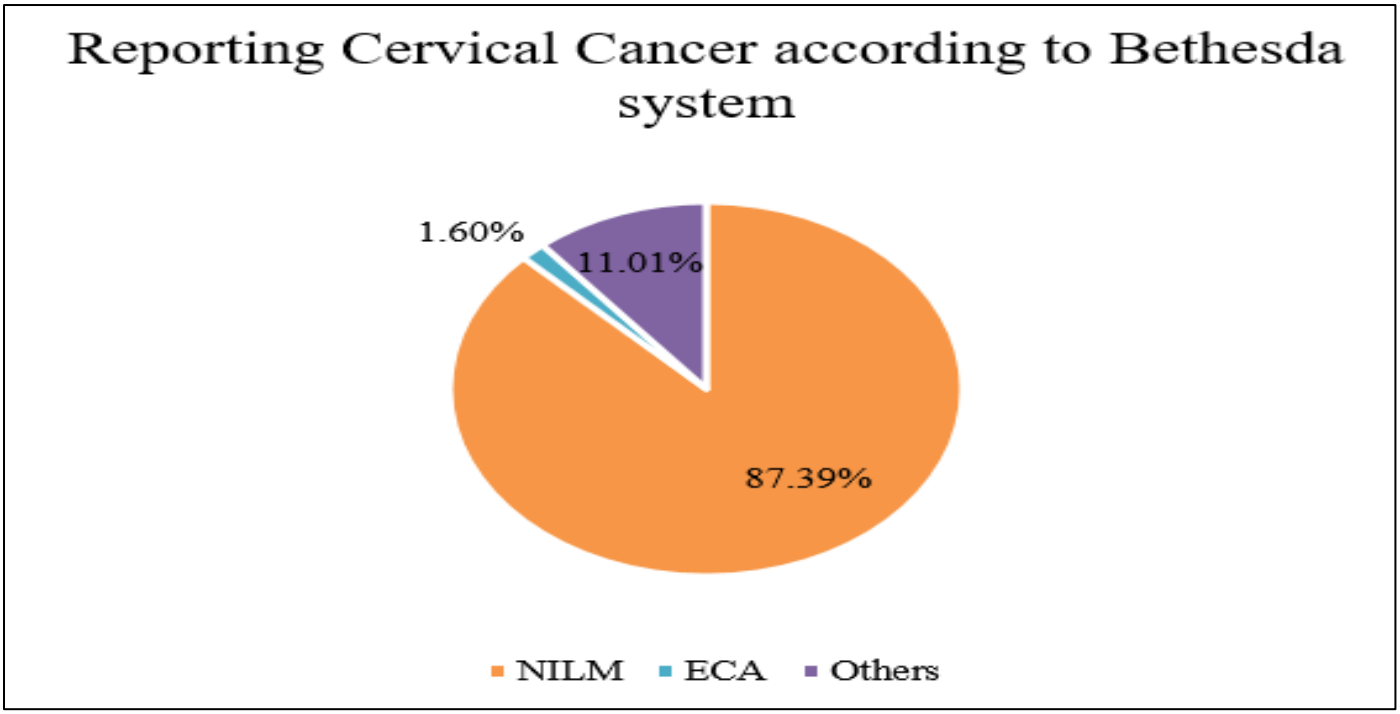

Fig 4: Cervical Cancer Reporting

Figure 4 shows the reporting of cervical cancer according to the Bethesda System. This is divided into three categories: Negative for Intraepithelial Lesion or Malignancy, Epithelial Cell Abnormalities and Others. Negative for Intraepithelial Lesion or Malignancy has the highest percentage with 87.39%, followed by Others with 11.01% and Epithelial Cell Abnormalities with 1.60%.

➢ *Table 1*

This table shows the reporting of Bethesda classification of Cervical cytology in total count. This is divided into three categories: negative for Intraepithelial Lesion or Malignancy, Epithelial Cell Abnormalities, and Others, which includes Basal Cell Carcinoma, pre-malignant, Chronic Cervicalitis, and Follicular Cervicitis. According to the dataset, it shows a high prevalence of Negative for intraepithelial lesions or malignancy by 87.39%; the majority accounted for benign findings, with a total of 23,012 cases reported. These results suggest a significant portion of the population undergoing screening does not present with malignancy or precancerous conditions, emphasizing the importance of regular screening to maintain these outcomes. Followed by the Others category with 11.01%, mainly high number in pre-malignant lesions by 2,900 cases, which represent a significant opportunity for intervention before progression to invasive disease, while BCC (1 case), chronic cervicitis (2 cases), and follicular cervicitis (1 case). Furthermore, epithelial cell abnormalities present with 1.60% with a high number of cases in malignant SCC and SCC in situ by 302 total, followed with Adenocarcinoma of 59 cases, which represent a significant burden of invasive cervical cancer. Early detection through screening is vital to monitor and treat effectively. AGUS (26 cases), ASCUS (16 cases), and Possible High Grade (8 cases) are warranting more definitive diagnostic procedures, such as Colposcopy & Biopsy to rule out high-grade lesions as well as reflex testing for high risk HPV to determine risk of progression.

Table 1: Bethesda Classification of Cervical Cases

Bethesda classification of Cervical Cytology				
Negative for Intraepithelial Lesion or Malignancy (NILM)		**Epithelial Cell Abnormalities**		**Others**
Organisms	**Neoplastic Findings**	**Squamous**	**Glandular**	**BCC – 1**
Benign- 23,012	Reactive- 2	AGUS – 36	Adenocarcinoma – 59	Pre-Malignant – 2,900
	Atrophy – 3	ASCUS – 16		Chronic Cervicitis – 2
	Squamous Metaplasia – 1	Possible High Grade – 8		Follicular Cervicitis – 1
	VAIN – 24	Malignant SCC – 301		
		Malignant SCC in SITU – 1		

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VI. DISCUSSION

Cervical cancer is the fourth most frequent cancer in women globally, with 604,000 new cases recorded in 2020 (Sung et al., 2021). According to the World Health Organization (WHO) latest statistics, globally, 660,000 new cases of cervical cancer were reported in 2022, which has caused around 350,000 deaths (Canavan & Doshi, 2024). Despite annual fluctuations, the disease's burden remains high, and if prompt treatments are not implemented, more cases are likely to be reported in the next few years. To understand this better, this study looked at the prevalence of cervical cancer cases identified in the National Cytology Center in CWMH and analyzed the demographics of the patients to identify any trends or risk factors associated with the disease.

The result of this study indicates that the prevalence of cervical cancer from the year 2016 June to 2023 December at Colonial War Memorial Hospital is 0.35%. According to the analysis it has been seen that there was a significant increase in the prevalence of cervical cancer from 2016 (6.25%) to 2017 (19.03%), whereby it was stable from 2017 to 2019 where 2017 had 19.03%, 2018 had 19.32%, and 2019 had 19.60%. Later, a drop was seen from 2019 (19.60%) to 2020 (8.81%), this could have been due to coronavirus disease (COVID) as there was a lockdown and movements were restricted which led to a decline in the number of women attending screening programs for Pap smears and HPV testing. Furthermore, it continued to decline till year 2022 (8.24%), whereby, a slight increase was seen in year 2023 (10.23%), which could be because of resumption of screening programs, such as pap smears and HPV testing. Another reason could be that women who may have developed cervical cancer during the pandemic may have contributed to the spike in cases in year 2022.

Moreover, between 2016 and 2023, 352 patients were positives with cervical cancer which was characterised according to malignant adenocarcinoma, malignant adenocarcinoma in-situ, malignant adenocarcinoma NOS, malignant endocervical adenocarcinoma, malignant endocervical adenocarcinoma in-situ, malignant endometrium adenocarcinoma, malignant squamous cell carcinoma and malignant squamous cell carcinoma in-situ, of whom prevalence of Ethnicity our study observed that I-taukei women has the highest number of cervical cancer with total cases of 261 with 76%, reported from 2016 to 2023, followed by Fijian of Indian descent of 77 cases with 22% and Others of 8 cases with at 2.27% of positive cases. Mortality rates were much higher among Fijian women, this could have been due to cultural stigmas or lack of awareness, and far higher in women aged ≥41 years. According to a study, the rates between 2000 and 2007 were far higher among indigenous Fijian than among Indian women; the difference between younger women is particularly marked (Kunatoga & Mohammadnezhad, 2021).

Through this study, it was determined that age is a popular risk factor for cervical cancer, with rates of incidence rapidly increasing among elderly women. Younger women, particularly those in their twenties and thirties, are less likely to contract cervical cancer, however they may still be at risk due to persistent HPV infections (De Cuba et al., 2016). Moreover, the age distribution of Cervical Cancer in women in the present study shows that the prevalence of age of 21-25yrs with 2% indication of lengthy natural progression of the disease, HPV vaccination protected, Early detection strategies, or shorter exposure to risk factors .The age category of 76-80yrs showed 2% prevalence due to previous successful treatment. Although, age 31-50 are most affected by 55% in our study which aligns with the global pattern where incident peak at 33-44 yrs with the average being 50yrs. Furthermore, our study shows that the highest peak was at age 41-45yrs by 15%. Nevertheless, a recent study done in 2019 (Quinn et al., 2019), stated that the distribution by age found that the majority (54%) were under the age of 50. According to the American Cancer Society, cervical cancer rates in women from 30-44 years has increased by 1.7% each year from 2012 to 2019 (*Cervical Cancer Statistics | Key Facts About Cervical Cancer | American Cancer Society*, 2024). Women with age category from 51 years old to 60 years old were also at high risk with a total of 18.47%, however, there was a decline in the cases from age category 61 years old to 65 years old by 14.49%, women in this age category may have benefited from cervical cancer screening when they were younger or detected on an early age was might have been treated. A peak was again seen in the age category from 66 years old to 70 years old by 8.52%.

Moreover, it has been observed that age category 21 years old to 25 years old with 76 years old to 80 years old has the lowest number of positive cases with 1.70% followed by age category 71 years old to 75 years old by 1.99%. Young women who are in their 20s may have lowest rate of cervical cancer as they may have been vaccinated against HPV, have fewer years of sexual activity or have long latency period with HPV as it usually takes 10 to 20 years to progress into invasive cancer. According to the American Cancer Society, cervical cancer rates in women from 20-24 years has declined by 11% each year from 2012 to 2019, probably due to HPV vaccination which reflects the first sign of cancer prevention (*Cervical Cancer Statistics | Key Facts About Cervical Cancer | American Cancer Society*, 2024).

The Bethesda system reporting has improved understanding towards cervical cancer by standardizing the interpretation and categorization of cervical cytology (Pangarkar, 2022). Bethesda System reporting is divided into three categories: Negative for Intraepithelial Lesion or Malignancy, Epithelial Cell Abnormalities and Others. Negative for Intraepithelial Lesion or Malignancy has the highest percentage with 87.39% (total count: 23,042) which reflects the success of screening programs, followed by Others with 11.01% (total count: 2,904) and Epithelial Cell Abnormalities with 1.60% (total count: 421). In a study by Akshatha, the prevalence of epithelial cell abnormality was 5.5% (Akshatha et al., 2017). Furthermore, a study done in 2020 by Pan was to compare survival outcome between adenocarcinoma and SCC; of the 33,148, 79.19% had SCC and 25.81% had adenocarcinoma. Adenocarcinoma had worse prognosis than in patients with SCC (Pan et al., 2020).

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Research conducted in Cairo, Egypt, examined the incidence of epithelial abnormalities using the Bethesda Classification of Cervical Cytology. The research examined 95,120 women and discovered that 5.44% had epithelial abnormalities, whereas 94.56% of smears tested negative. LSIL were the most prevalent abnormality, seen in 4.36% of women. HSIL and SCC were substantially uncommon, involving 0.24% and 0.07% of women, respectively (Ezzelarab et al., 2024).

VII. CONCLUSION

The findings of the research on the prevalence of cervical cancer at Colonial War Memorial Hospital between 2016 and 2023 indicate significant trends and risk factors. Despite general changes, cervical cancer continues to be a major health concern, particularly among Fijian women and those aged 41 and over. The analysis showed that cervical cancer frequency increased significantly between 2016 and 2019, then decreased until 2022, with a modest return in 2023. Although, cervical cancer screening is a priority in clinical practice, the costs of screening provide substantial hurdles to good care, especially in poor countries where cervical cancer mortality is greater due to a lack of knowledge and effective screening programs (Townsend et al., 2014). This emphasizes the significance of ongoing screening, early detection, and interdisciplinary preventive and control efforts such as community education, immunization, and therapeutic treatments. The Bethesda System has been effective in standardizing cervical cancer diagnosis and classification, resulting in better therapeutic results. Although major advances in screening and prevention, problems persist, notably in managing recurrent cancer, with five-year overall survival rates hovering around 60% (Orbegoso et al., 2018). These findings highlight the need of targeted treatments, particularly for high-risk age groups and ethnic groupings, in reducing the burden of cervical cancer in Fiji.

VIII. LIMITATIONS

Our data collection research is limited by several significant information for our study. There are considerable gaps in the data from 2013 to 2015, as well as from January to May 2016, which may compromise the strength of our analyses. Additionally, the absence of stage information on the LIS prevents a comprehensive understanding of disease progression among patients. Incomplete age data further limits our demographic insights, while restricted access to full patient details poses challenges in gathering critical information. Compounding these issues, our cytology lab is facing a shortage of essential supplies, including filters, vials, and endocervical brushes, which disrupts the testing capabilities. Moreover, the foreseen breakdown of the Thin Prep 2000 analyser from November 2023 to February 2024 will worsen operational difficulties, making it essential to address these limitations to improve the quality and reliability of our research findings.

RECOMMENDATION

To enhance our research efforts, it is crucial that the hospital ensures the availability of at least 10 years of data for student research initiatives, providing a robust foundation for analysis and findings. Additionally, implementing awareness to the general public is essential to promote early detection and prevention. Increasing public knowledge about HPV vaccination will help individuals to protect themselves against cervical cancer. Lastly, updating cervical cytology reporting to align with the latest Bethesda classification will improve the accuracy and consistency of the findings as well as ensuring that it reflects current standards in the field. These recommendations collectively aim to strengthen research framework and contribute to better health outcomes in the community.

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FUTURE RESEARCH

For future research, firstly we aim that an investigation on the impact of HPV vaccination to evaluate its effectiveness in reducing incidence within the population. Secondly, a data collection study ten years after our initial research to analyse trends in cervical cancer rates and identify any significant difference. Lastly, a study can be done on how cultural beliefs influence women's participation in cervical cancer screening, as our findings shows this as a notable barrier.

LIST OF ACRONYMS

- ASCUS Atypical Squamous Cells of Undetermined Significance
- CIN Cervical Intraepithelial Neoplasia
- CHHREC College Human Health Research Ethics Committee
- COVID Corona Virus Disease
- CWMH Colonial War Memorial Hospital
- CT Computerized Tomography
- HIV Human Immunodeficiency Virus
- HPV Human Papillomavirus
- HSIL High grade Squamous Intraepithelial Lesion
- LIS Laboratory Information System
- LSIL- Low grade Squamous Intraepithelial Lesion
- MRI Magnetic Resonance Image
- N/A- Not available

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- PET Positron Emission Tomography
- SCC Squamous Cell Carcinoma
- TBS The Bethesda System
- US Ultra Sound
- WHO- World Health Organization

GLOSSARY OF TERMS

- Adenocarcinoma is a malignant tumour originating in glandular epithelium.
- Atypical Endocervical Cells are abnormal cells found in the endocervical canal, the part of the cervix that connects the uterine cavity to the vaginal cavity.
- Atypical Endometrial Cells is an abnormal cell found in the endometrium, the inner lining of the uterus.
- Atypical Glandular Cells is an abnormal cell found in glandular tissues, such as those lining the cervix or the endometrium (the inner lining of the uterus).
- Atypical Squamous Cells is a squamous cell that exhibit abnormalities in size, shape, or organization, making them appear atypical compared to normal squamous cells.
- Cancer is a malignant tumour of potentially unlimited growth that expands locally by invasion and systemically by metastasis.
- Cytology is a branch of biology dealing with the structure, function, multiplication, pathology, and life history of cells.
- Desmoplasia is the formation of fibrous connective tissue by proliferation of fibroblasts.
- Discrepancy is the quality or state of disagreeing or being at variance.
- Dysplasia is an abnormal growth or development (as of organs or cells).
- Endocervical Adenocarcinoma is a malignant tumour that develops from the glandular epithelial cells of the endocervical canal.
- Endocervical cells is a columnar epithelial cell that line the endocervical canal.
- Fixation is the process of preserving biological tissues from decay, autolysis, and putrefaction, allowing for detailed examination under a microscope.
- Glandular cells are a type of epithelial cell that line the glands and glandular structures of the body, including those in the cervix.
- Genome is one haploid set of chromosomes with the genes they contain.
- Gynaecologic is relating to the branch of physiology and medicine which deals with the functions and diseases specific to women and girls, especially those affecting the reproductive system.
- High Grade Squamous Intraepithelial Lesion is a more severe abnormalities in the squamous cells on the surface of the cervix.
- HIV is either of two retroviruses that infect and destroy helper T cells of the immune system causing the marked reduction in their numbers that is diagnostic of AIDS.
- Immunosuppression is suppression (as by drugs or disease) of the immune response.
- Incidence is new existing cases of disease.
- Invasive is tending to spread especially in a quick or aggressive manner.
- Lesion is an abnormal change in the structure of an organ.
- Low Grade Squamous Intraepithelial Lesion is a mild dysplasia or early changes in the squamous cells of the cervix.
- Malignancies is an exhibition (as by a tumour) of malignant qualities.
- Metastasis is the spread of a disease-producing agency (such as cancer cells) from the initial or primary site of disease to another part of the body.
- Necrosis is usually localised death of living tissue.
- Neoplastic Changes is an abnormal alteration in cell growth and behaviour, resulting in the formation of neoplasms or tumours.
- Pleomorphism is able to assume different forms.
- Postcoital is occurring after coitus: used or occurring following sexual intercourse.
- Prejudice is an injury or damage resulting from some judgement or action of another in disregard of one's rights.
- Prevalence is the number of existing cases of disease.
- Prognosis is the prospect of recovery as anticipated from the usual course of disease or peculiarities of the case.
- Persistent is existing for a long or longer than usual time or continuously.
- Precancerous is tending to become cancerous.
- Squamous cell is a type of epithelial cell that is flat and thin in shape, resembling scales or tiles.
- Squamous Intraepithelial Cells is a cell found in the epithelial layer of the cervix that can exhibit abnormal changes indicating various stages of dysplasia or pre-cancerous lesions.
- Squamous Metaplastic cells is a cell in the cervix that have undergone a process called metaplasia, where one type of epithelial cell is replaced by another type that is not normally present in that location.
- Squamous cell Carcinoma is a carcinoma that is made up of or arises from squamous cells and usually occurs in areas of the body exposed to strong sunlight over many years.
- Tumour is an abnormal benign or malignant new growth of tissue that possesses no physiological function and arises from uncontrolled usually rapid cellular proliferation.
- The Bethesda System is a classification system established for reporting cervical cytology results, designed to provide clear and standardized categories for the diagnosis and management of cervical abnormalities.
- Transformation zone is the area of the cervix where the columnar epithelial cells of the endocervix transition to squamous epithelial cells of the ectocervix.

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