

Demographic characteristics of women attending an opportunistic cervical cancer screening programme at Tata Medical Centre, Kolkata

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INTRODUCTION

- Cervical cancer is a type of cancer that develops in a woman's cervix (the entrance to the womb from the vagina). Cancer of the cervix often has no symptoms in its early stages and takes a long while to manifest itself.
- Cervical cancer is caused by sexually acquired infection with certain types of HPV. Two HPV types (16 and 18) cause 70% of cervical cancers and pre-cancerous cervical lesions.
- Thus, early screening and diagnosis is necessary to better tackle the disease, indicating that awareness alone is a critical factor in combating the disease at the earliest.
- Although cervical cancer awareness is much achieved in developed countries, awareness and demographic data from developing countries are scarce.
- Through analysis of questionnaire based responses during cervical cancer screening conducted at TATA Medical Centre, we attempt to identify potential demographic parameters, that can be used to correlate susceptibility to Human Papilloma Virus (HPV) infection.

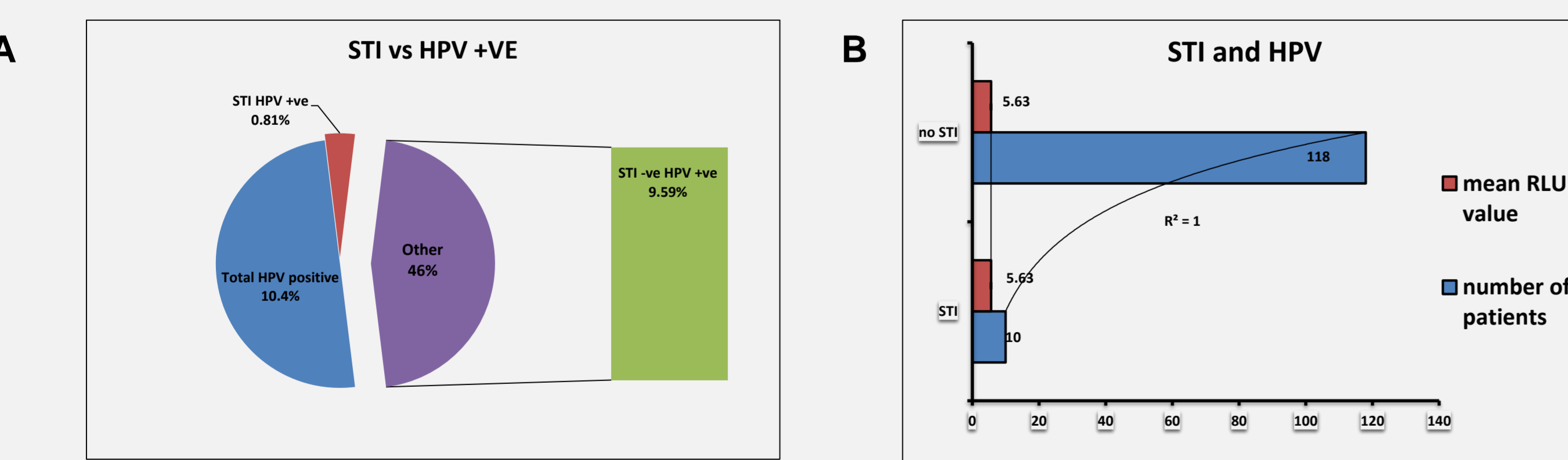
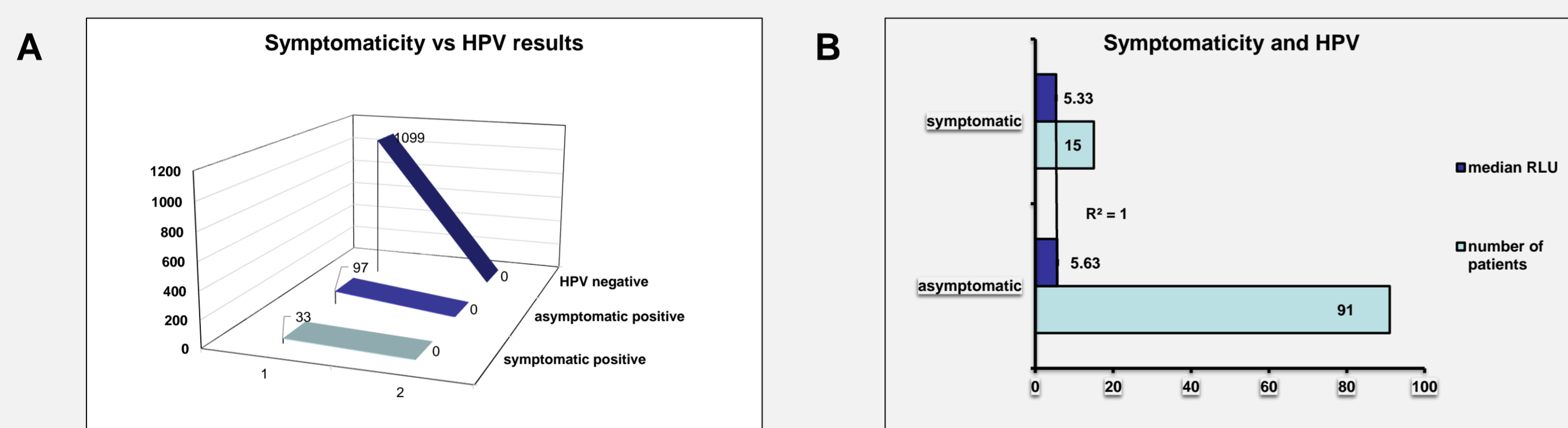
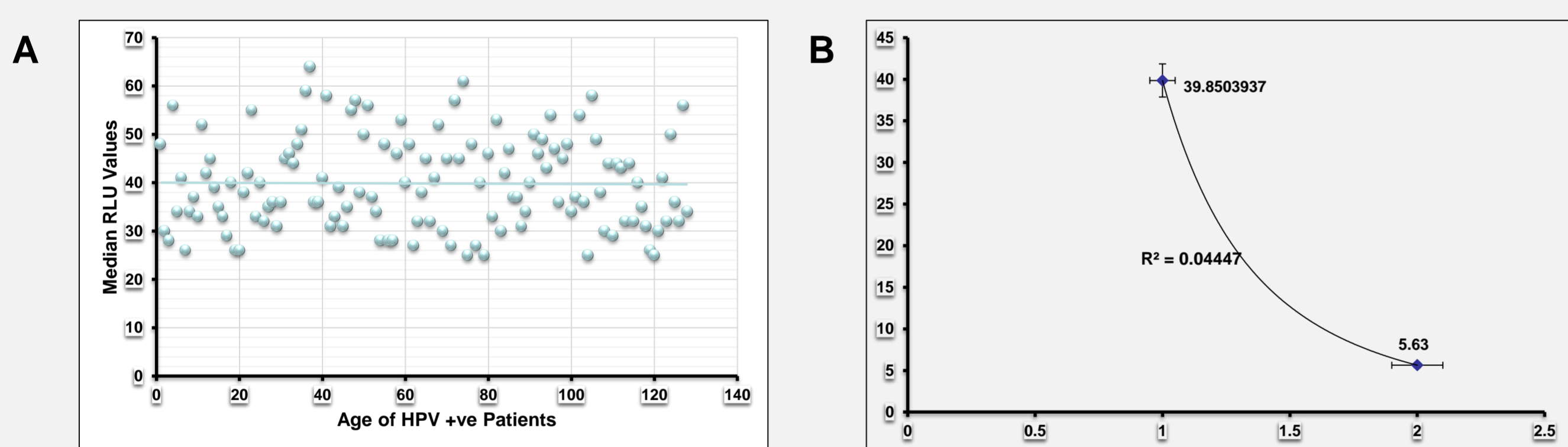
AIMS & OBJECTIVES

- To identify and understand how different demographic parameters can influence HPV susceptibility.
- To further study the specific identified risk factors to reveal the possible mechanism of HPV infection via these routes.

METHODOLOGY

- A survey based questionnaire was used to gather information from 1230 patients at TMC screening centre.
- Data set was further processed using statistical softwares.
- Analysis were made to identify correlation between HPV infection and its possible risk factors.
- HPV susceptibility was quantified using the cut off/RLU values indicating the degree of infectivity in the particular individual.

RESULTS AND DISCUSSION



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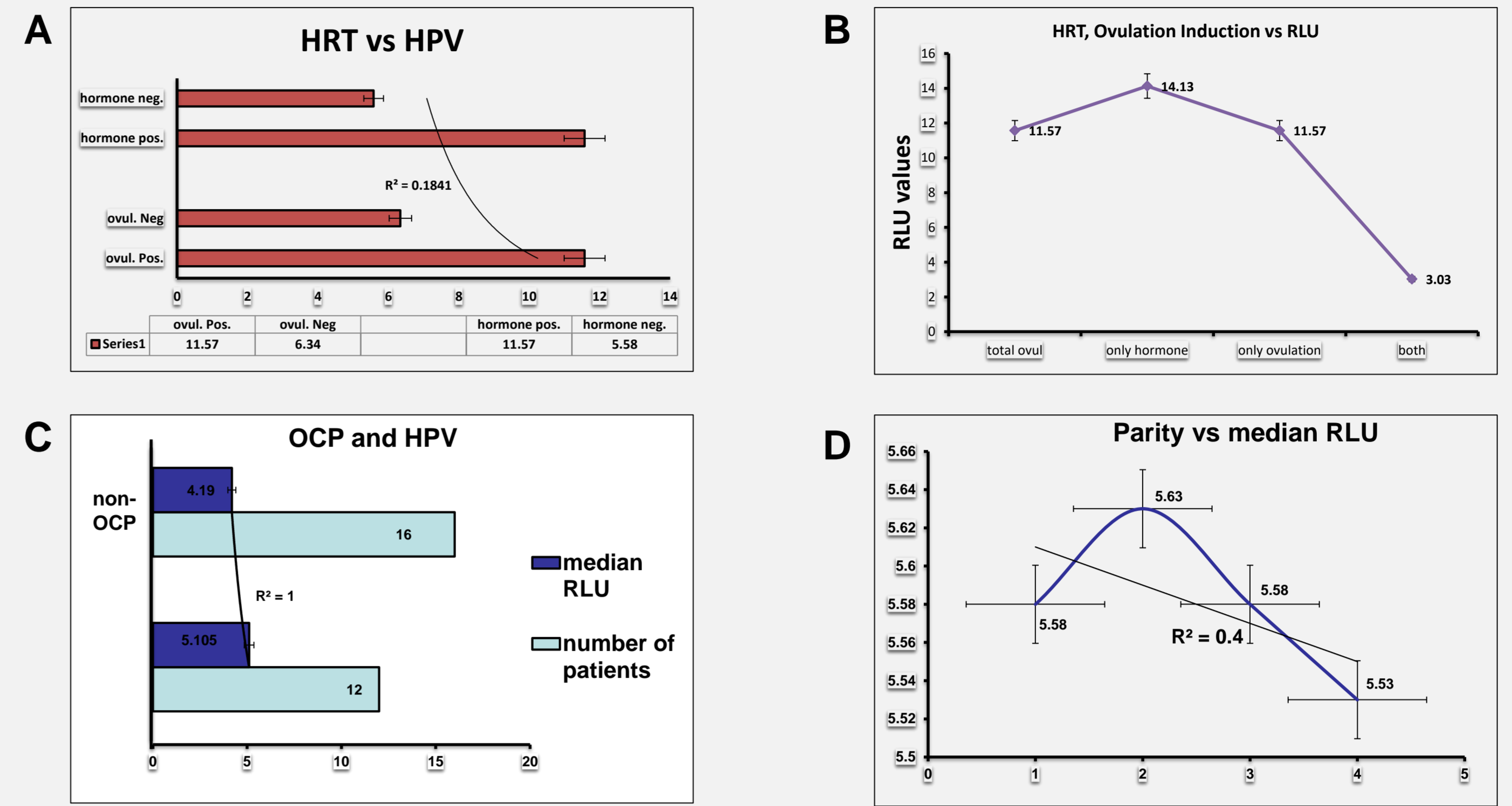


Fig 4A: A demographic data presentation to outline the HRT positive and negative, ovulation induced and uninduced patients and their possible relation to HPV positive outcome. ; 4B: Similar to OCP, HRT (Hormone Replacement Therapy) and Ovulation Induction can also increase HPV susceptibility; 4C: Correlation of the patients consuming OCP and those not consuming them with their corresponding HPV positive median RLU values, depicting that OCP, in positive correlative terms, can increase the HPV susceptibility; D: HPV positive patients showing correlation with multiple pregnancies, indicating it to be one of the plausible causes that may lead to HPV susceptibility.

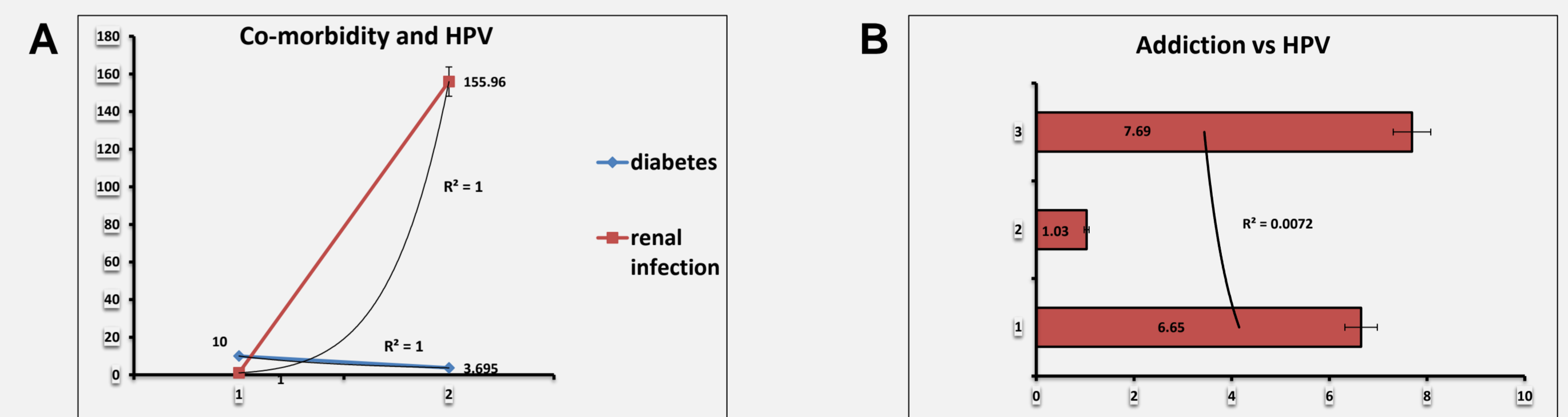


Fig 5A: Correlation of the patients having infectious co-morbidities like diabetes and renal infections, depicting how, in positive correlative terms, it can increase the HPV susceptibility ; 5B HPV positive patients showing correlation with addictions, indicating it to be one of the plausible causes that may lead to HPV susceptibility..

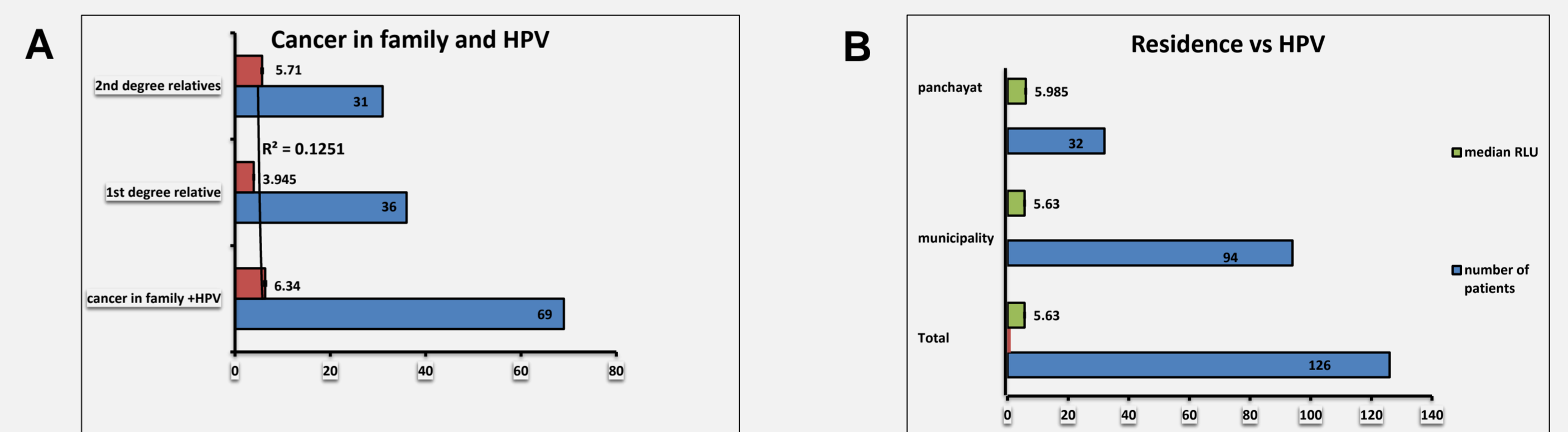


Fig 6A-B: HPV positive patients showing correlation with the plausible causes that may lead to HPV susceptibility such as previous history of cancer in family and rural residential setup respectively .

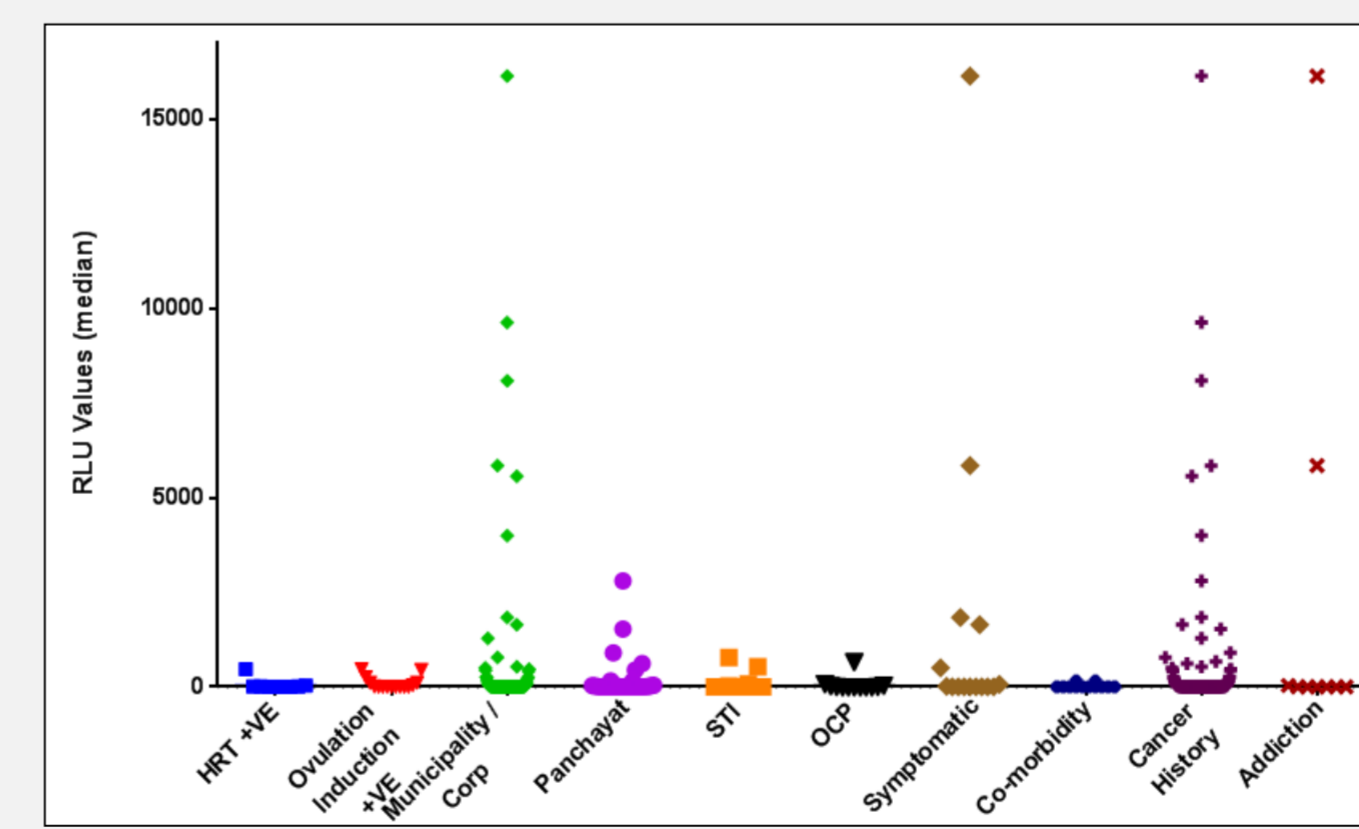


Fig 7: The distribution demography of the major contributors as causal symptoms of HPV susceptibility in a varied population.

CONCLUSION

The parameters which are correlated with HPV infection susceptibility can be ranked as follows: (in descending order)

- Oral Contraceptive Pills (OCP) have the strongest correlation
- Hormone Replacement therapy and Ovulation induction
- STIs (Sexually Transmitted Infections)
- Symptomaticity (post coital bleeding, vaginal discharge, post menopausal discharge)
- Infectious co-morbidities
- Addictions (Smoking, chewing tobacco and Alcohol consumption)
- Familial cancer, residential setup and parity (multiple pregnancies)

ACKNOWLEDGEMENTS

- The System Medicine Cluster (SyMeC) project is funded by grant from DBT.
- Dr. Mammen Chandy, PI, Tata Medical Centre.
- The team members of Gynaecological Oncology Department, TATA Medical Centre, Kolkata.
- To all the patients who has provided with their samples.

