



Synopsis

Dissertation Topic:

**ASSESSMENT OF KNOWLEDGE, ATTITUDES, AND PRACTICES AMONG
PHYSICIANS, PAEDIATRICIANS, AND GYNECOLOGISTS IN KOCHI REGARDING
HPV VACCINE PRESCRIPTION**

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1. Introduction:

Cervical cancer, due to chronic infection with high-risk Human Papillomavirus (HPV) types, continues to be one of the most important causes of Indian women dying of cancer. Though a vaccine-preventable condition, India accounts for almost 25% of the world's cervical cancer burden [1].

Though the World Health Organization (WHO) has established a global plan to eradicate cervical cancer by the year 2030, India is still plagued with issues ranging from low awareness of the vaccine to high affordability, social stigma, access issues, and fragmented program implementation [2]. The cervical cancer rate in India stands at 18.3 per 100,000 women with about 96,000 new cases and 60,000 deaths every year [3].

The launch of Cervavac, the first indigenously made HPV vaccine by Serum Institute of India in 2023, is a milestone in the affordability of preventive healthcare [4]. This product possibly circumvents the affordability hurdle that has for long constrained vaccine coverage.

At the global level, Rwanda has attained high coverage of the complete series of HPV vaccine (more than 93%) by having successful implementation strategies and involving healthcare providers [5]. The strategy used by Rwanda involved extensive training of healthcare providers, high-level political commitment, and community involvement—factors that could guide India's vaccine strategy [6].

This study aims to assess the Knowledge, Attitudes, and Practices (KAP) among healthcare professionals regarding HPV vaccination in Kochi, Kerala and draw strategic insights from Rwanda's successful implementation model that could be adapted to the Indian context.

2. Research Question:

What is the status of knowledge, attitudes, and practices of HPV vaccination among Indian healthcare workers, and what can be learned from Rwanda's highly successful model of implementation to maximize vaccine acceptance?

3. Aims:

- To determine the KAP level of healthcare providers regarding HPV vaccination in India
- To determine the main barriers and facilitators to recommendation of HPV vaccine among Indian healthcare workers
- To examine Rwanda's effective HPV vaccination implementation model and contextual factors

- To determine transferable strategies from the Rwandan model that may be instituted in the Indian healthcare environment
- To provide evidence-based recommendations for enhancing healthcare provider involvement in HPV vaccination activities in India

4. Material and Methods:

Study Design:

Mixed-method approach using both secondary and primary research.

A. Secondary Research:

- **Type:** Literature review
- **Sources:** WHO reports, MoHFW data, GAVI documents, ICMR publications, peer-reviewed journal articles, national health databases
- **Scope:** National and regional data on HPV vaccination, Rwanda's implementation model, provider-focused interventions
- **Specific Focus:** In-depth analysis of Rwanda's HPV vaccination program implementation, structure, and outcomes

B. Primary Research (KAP Survey):

- **Population:** Doctors (gynaecologists, paediatricians, general physicians)
- **Tool:** Structured KAP questionnaire (validated)
- **Sampling:** Convenience sampling of healthcare providers from selected hospitals
- **Mode:** Online survey (Google Forms)

Inclusion criteria:

1. Registered medical practitioners (MBBS or higher) currently practicing in India
2. Doctors from specialties relevant to HPV vaccination (e.g., Gynaecology, Paediatrics, General Medicine, Community Medicine, etc.)
3. Willing participants who provide informed consent to take part in the survey
4. Doctors working in public, private, or semi-private healthcare institutions

Exclusion criteria:

1. Medical students, interns, or non-practicing healthcare professionals

2. Doctors not involved in patient-facing roles or vaccine-related decision-making
3. Incomplete or duplicate survey responses
4. Respondents who do not give informed consent

Duration of Study:

March 10th – May 31st, 2025

5. Data Analysis Plan:

Secondary Data:

- Thematic analysis of Rwanda's implementation model, focusing on healthcare provider engagement
- Comparative analysis between Rwanda and India's healthcare contexts and vaccination approaches

KAP Survey (Primary Data):

- **Quantitative Analysis:**
 - Frequency distribution of knowledge scores, attitude ratings, and reported practices
 - Correlation analysis between knowledge levels and recommendation practices
 - Subgroup analysis by specialty, practice setting, and geographic location
 - Tools: Microsoft Excel, SPSS

6. Ethical Considerations:

- Informed consent will be obtained from all KAP survey participants
- Ethical clearance will be obtained from the mentor and the university
- Participant data will remain anonymous and confidential
- Secondary data sources will be cited properly and used responsibly

7. Implications of the Research:

This research will:

- Provide insights into healthcare provider knowledge gaps and attitudes affecting HPV vaccine recommendation in India

- Identify transferable elements from Rwanda's successful model that can be adapted to the Indian context
- Generate evidence for targeted provider education and engagement strategies
- Inform policy approaches that address provider-level barriers to HPV vaccination
- Contribute to the broader effort of cervical cancer prevention in India

8. References:

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