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**CONDUCTING FORMATIVE RESEARCH FOR HPV VACCINATION PROGRAM PLANNING:
PRACTICAL EXPERIENCE FROM PATH**

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Assessing Health Delivery System Readiness

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Assessing Health Delivery System Readiness

Describe the current vaccine delivery system capacity for HPV vaccine introduction

Rationale

Sustainable vaccination coverage is only possible when vaccination services are available, accessible, and supported by sufficient human resources.¹ According to the World Health Organization's (WHO) guidelines, a review of the status of the vaccine management and delivery systems—including cold chain systems, human resources, tracking and monitoring, and vaccine delivery from national- to community-level health facilities—will help in understanding the system's capacity for HPV vaccine introduction.²

Be sure to cover the following areas:

- **Cold chain system:** Describe the current systems of cold chain management from the national to community level, types of equipment available, and how temperature is maintained and monitored during transport.²
- **Human resources and turnover:** Describe the staff who are currently involved in the different levels of the vaccine management and vaccine delivery systems (including routine vaccination, outreach campaigns, school-based programs, etc.). Be sure to gauge existing staff turnover levels as this impacts staff training and supervisory resources.
- **Health information systems:** Describe how vaccine recording and reporting is currently maintained. Note any differences between the different vaccine delivery mechanisms. Identify any separate records kept by health staff in addition to the administrative reports. Be sure to identify and discuss how these reports are used by the various levels.
- **Adverse events following immunization (AEFI) management:** Describe the procedures for reporting and following up on vaccine-related adverse events. Identify who is responsible for ensuring this happens in the health delivery system.²
- **Vaccine service delivery:** Describe how routine child/adolescent vaccines are delivered and who the vaccine recipients are. Besides routine vaccination, describe what additional vaccine delivery opportunities may be available and how they are organized.

Feasible options for HPV vaccine delivery

Rationale

HPV vaccines are targeting older girls, a population traditionally not accessing health services such as immunizations. In addition to routine and campaign-style vaccine delivery, school-based vaccinations or other novel approaches may promote high vaccine coverage among an adolescent population.³ Exploring how vaccine can be delivered to 10- to 14-year-old girls will help to understand the effort required to provide HPV vaccines in the community.

Be sure to cover the following areas:

- **Target age range:** Can you vaccinate girls 10 to 14 years old?
- **Age criteria:** Can you select girls by age or by grade? How about those who do not go to school?
- **Delivery options:** Discuss the advantages and disadvantages of vaccinating girls of different ages within the 10- to 14-year-old age range. Describe ways that HPV vaccines delivered to different age groups can be combined with other health and immunization programs that are being offered, especially targeting 10- to 14-year-old girls. Discuss the appropriateness and feasibility of school-based vaccination programs.

Future needs of the vaccine delivery and health communication systems in support of HPV vaccine introduction

Rationale

An assessment of likely future needs in support of HPV vaccine introduction efforts is critical for future resource planning. If the vaccine management and delivery systems are already working at capacity, introduction of any new vaccine may be associated with incremental cost and human resource needs. Discussing the state of the current systems with different stakeholders at various levels, specifically considering them in the context of HPV vaccine introduction, will help to identify the systems strengthening needs prior to HPV vaccine introduction.^{2,4}

Be sure to cover the following areas:

- **Vaccine delivery logistics:** Identify the limitations or challenges faced within the health system with vaccine procurement, storage, and distribution; and explore whether these challenges are applicable to HPV vaccine introduction. Identify any additional challenges with the introduction of HPV vaccines. Describe any ideas on how to overcome these challenges.
- **Cold chain:** Based on the current capacity, describe any cold chain improvements that may be needed prior to HPV vaccine introduction. Identify likely resources that will be needed to continue delivering the new HPV vaccine. Identify any likely

challenges that may exist for making improvements. Query for any ideas on how to overcome these challenges.

- **Human resources:** Based on the current capacity, identify the additional staff requirements and/or reallocation of time for current staff if HPV vaccines are added to routine delivery.
- **Training:** Identify any specific staff training needs that are not already given.
- **Service delivery mechanisms:** Based on the current delivery strategies, discuss how easily HPV vaccines could be integrated with routine immunization programs. Discuss other health mechanisms that could be used to deliver HPV vaccines. Identify and discuss any groups that have limited access to vaccines and any ideas on how to overcome this.
- **Likely impact of new vaccine on existing services:** Discuss how HPV vaccine introduction can benefit and potentially change existing health programs and immunization services. Identify any likely negative impacts on existing immunization services and how to mitigate them.
- **Health education and communication strategies:** Describe the methods of health education and communication strategies to inform communities about the HPV vaccine and cervical cancer prevention. Discuss the potential for incorporating these messages into other health education programs.
- **Budget:** Describe any monetary concerns with the purchase and distribution of current vaccines from the national level to the community. Describe budgetary concerns that could stem from the need for added human resources, training, logistics, cold chain improvements, or additional service delivery mechanisms.

Political and technical dynamics that influence vaccine delivery systems

Rationale

Understanding the health system operations, especially in the context of vaccine delivery, and determining key authority figures (health workers, teachers, etc.) and decision-makers are important for creating strong immunization programs.^{1,5,6} Understanding how various people affect the way vaccines are delivered and who the trusted sources of information are in the health delivery system will help HPV vaccine introduction to be successful.

Be sure to cover the following areas:

- The roles and responsibilities of people involved in a strong vaccine program
- The health concerns of the community from the perspective of the health care provider and teachers and the importance of these concerns in developing health programs. Provide examples whenever possible to illustrate these points.
- The immunization priorities among health workers and other immunization personnel. Explore how these priorities are shaped by the strengths and weaknesses of the existing immunization program.

Critical secondary data for HPV vaccine introduction

Rationale

Policymakers need epidemiological and clinical information to make a case for the introduction of a new vaccine into the public health programs.⁷ Understanding some background information that could influence HPV vaccine introduction—such as cervical cancer burden, age of sexual debut, and safety concern—helps determine the need for the HPV vaccine, who should be immunized, and what the benefit of the vaccine would be.

Collect information in the following areas:

- Available data indicating cervical cancer burden in the area
- Average age of sexual debut
- The number of girls in target vaccination population (and their age distribution), using census and school enrollment data

Existing health and education services

Rationale

Important partnerships within the health care system will be needed to expand access to vaccines by an adolescent population.³ Cost-effective approaches will require the use of existing services to the extent possible. Identifying all the health services currently available for health education, cancer prevention, immunizations, and adolescent health may identify key groups to coordinate with and help develop vaccine delivery and communication strategies for HPV vaccines.

Be sure to cover the following areas:

- Generate a list of the services that are provided in the following departments:
 - Adolescent health
 - Immunization
 - Health education (vaccine-related and other health education)
 - Cancer control
 - Reproductive health
- Discuss the feasibility of integrating HPV vaccine delivery or education into each existing service

References

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