

Exploring Community-Clinical Linkages to Support HPV Vaccination: A Multi-Site Case Study

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BACKGROUND

- HPV vaccination rates remain well below national *Healthy People 2020* goals of 80% coverage for adolescent females and males aged 13-17. Nationally, in 2015, 63% of adolescent girls had received dose 1 of the HPV vaccine, and only 42% completed the 3-dose series. Similarly, only 50% of adolescent boys received dose 1 of the vaccine in 2015, and only 28% completed the full series.
- There is great regional variation in coverage and incongruence of HPV vaccination coverage in regions with high HPV-associated diseases.
- Innovative partnerships between community and clinical entities (i.e. community-clinical linkages [CCLs]) are required to help remedy this public health problem.
- Although CCLs are commonly used to address public health concerns, rigorous evaluation is needed to fully understand the role of CCLs' to increase HPV vaccination.

The purpose was to examine CCLs to enhance understanding of core components, processes, relationships, outcomes, and/or areas of improvement to inform future dissemination of these partnerships to increase HPV vaccination.

METHODS

- Investigators representing a CPRN multi-site HPV Vaccination Work Group explored CCLs in their respective communities.
- A case study approach was used to collect information describing nine CCLs that promote, educate on, and/or deliver HPV vaccination among their target populations. Interviews with CCL representatives focused on the type of CCL integration, impetus for the respective CCL, barriers and facilitators to effective linkages and promotion of HPV vaccination, and evaluation activities.
- An abstract form guided by CCL core components and processes was used to conduct a thematic content analysis to aid in understanding the role of CCLs in HPV vaccination. Investigators from each CPRN site independently completed abstract forms for their two CCLs. An iterative approach to analysis and interpretation was used.
- Table 1** provides an overview of the constructs and questions used to guide analysis.

RESULTS

- Table 2** provides an overview of descriptive characteristics of nine CCLs. Five of the nine CCLs included a federally qualified health center (FQHC) as the clinical partner and five included a non-profit organization as the community partner.
- Five reflected clinically-focused integration wherein engagement occurs in the community but vaccine delivery and follow-up occur in the clinical setting.
- The main impetus often derived from the need to improve clinical metrics for HPV vaccination but also demonstrated a strong interest in communities to prevent cancer through HPV vaccination.
- Having a designated person to support the CCL as well as funding were noted as critical components.
- Most CCLs included some evaluation of HPV programming.

Table 1. Construct Table

Construct/Domain	Related Questions
Descriptive Information	1. How would you describe the mission of your organization? 2. Who are the primary staff in your organization? 3. What locations does your organization serve? 4. What is the target population of your organizational setting?
Type of Integration	5. Please tell me the extent to which your site offers the following services related to HPV vaccination: <ul style="list-style-type: none"> Equally-shared Community-focused Clinically-focused <ul style="list-style-type: none"> Information and counseling for parents and children/adolescents Making arrangements for children/adolescents to receive vaccinations Administering vaccinations Providing referral and/or feedback to a partner organization Other (specify)
Impetus	6. To what extent is your involvement in HPV vaccination in response to leadership/policies at the national, state or local level?
Types of Services Offered	7. What types of HPV vaccination are offered? 8. Describe any past efforts to address HPV vaccination. 9. Describe any planned efforts to address HPV vaccination. 10. What resources are devoted to current efforts to address HPV vaccination? (E.g., resources are funding, staff time, other). <ul style="list-style-type: none"> What resources were devoted to past efforts? What resources will be devoted to planned efforts?
Spanning Support	11. What type of training, such as professional development or education, have you offered on HPV vaccination? 12. Who is the person in your organization responsible for working with [partnering site]? <ul style="list-style-type: none"> What is his/her role in the organization?
Facilitators	13. What would help you in your work with [partnering site] to address HPV vaccination?
Barriers	14. What do you think is working well to make your partnership successful? 15. What challenges have you experienced in your partnership?
Evaluation	16. What evaluation activities have been conducted of your HPV program? <ul style="list-style-type: none"> If applicable, briefly describe the focus on your evaluation

Table 2. Descriptive Characteristics of HPV Vaccination Community-Clinical Linkages

#	Clinical Site	Community Site	Modality of Interview	Urban or Rural Focus	Racial or Ethnic Minority Focus	Funding	Impetus	Evaluation of HPV programs	Type of Integration
1	FQHC	Non-profit organization	Combination (Telephone, Email)	Rural	Yes	No	State level Influence of state public health department	No	Clinically-focused integration
2	University-based mobile clinic	Faith-based organization	In-person	Rural	Yes	Yes (Both)	National initiative, implemented locally	Yes	Equally-shared integration
3	Local health department	State or local organization	Combination (Telephone, Email)	N/A	No	Yes (Clinical)	National initiative, implemented locally	Yes	Equally-shared integration
4	FQHC	Non-profit organization, national organization	Email	Urban	No	Yes (Both)	National initiative, implemented at state and local levels	Yes	Clinically-focused integration
5	FQHC	Non-profit organization, national organization	Combination (In-person, Telephone, Email)	N/A	No	Yes (Both)	National initiative, implemented locally	Yes	Clinically-focused integration
6	Primary care, pediatrics	Pharmacy	In-person	Urban	No	Yes (Both)	National initiative, implemented locally	Yes	Equally-shared integration
7	University-based clinic	University health education program	Combination (Telephone, Email)	Urban	No	Yes (Clinical)	National initiative, implemented locally	Yes	Clinically-focused integration
8	FQHC	Non-profit organization, national organization	Email	Rural	No	Yes (Both)	National initiative, implemented at state and local levels	Yes	Clinically-focused integration
9	FQHC	Non-profit organization, state or local organization,	Combination (In-person, Email)	N/A	No	No	Local level	Yes	Clinically-focused integration

IMPLICATIONS FOR DISSEMINATION & IMPLEMENTATION RESEARCH

Based on the examination of nine CCLs, the results will be used to guide future HPV vaccination promotion, education, and interventional efforts across CPRN sites and contribute to dissemination and implementation science focused on community-clinical collaborations to improve public health. FQHCs emerged as important clinical sites involved in CCLs and non-profit organizations as community sites. These may be appropriate frontline targets in cultivating CCLs to increase HPV vaccination. In addition, having a designated person and funding were identified as critical components of CCLs. CCLs offer the opportunity to study the process of adapting and integrating evidence-based approaches to increase HPV vaccination taking into account important sociopolitical and contextual factors while focusing on structural change to support vaccination. CCLs offer a valuable opportunity to enhance evidence-based approaches to dissemination and implementation of HPV vaccination strategies.

Acknowledgments: This research is the result of work conducted by five of the Cancer Prevention and Control Research Network sites funded by the Centers for Disease Control and Prevention (CDC) and the National Cancer Institute (NCI). The research was supported by the following cooperative agreements from the CDC Prevention Research Centers Program and NCI: Oregon Health & Science University: Dissemination, Implementation and Evaluation of Native STAND in American Indian Communities [U48 DP005006; PI: Becker]; University of Iowa: Health Promotion and Disease Prevention Research Centers [U48 DP005021; PI: Curry]; University of Kentucky: Appalachian Center for Cancer Education, Screening and Support [U48DP005014-0152; PI: Vanderpool]; University of South Carolina: Multi-Level, Community-Clinical Cancer Prevention and Control Interventions [U48 DP005000-0152; PI: Friedman]; University of Washington: Alliance for Reducing Cancer, Northwest [U48 DP005013; PI: Hannon]. The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the CDC and NCI.

