

Innovative public–private partnership: a diagonal approach to combating women’s cancers in Africa

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Problem In low- and middle-income countries, breast and cervical cancer have a poor prognosis, partly owing to barriers to treatment. To redress this situation, health systems must be strengthened.

Approach Pink Ribbon Red Ribbon (PRRR) is an innovative partnership designed to leverage public and private investments in global health and to build on the successful United States President’s Emergency Plan for AIDS Relief (PEPFAR) platform to combat cancers of the breast and cervix in sub-Saharan Africa and Latin America. By supporting a comprehensive set of country-owned and country-driven interventions, PRRR seeks to reduce deaths from cervical cancer among women screened and treated through the programme and to reduce deaths from breast cancer by promoting early detection.

Local setting In its initial phase, PRRR is supporting the governments of Botswana, Zambia and other countries in expanding cervical cancer prevention, screening and treatment coverage – especially to high-risk women with human immunodeficiency virus infection – and in strengthening breast cancer education and control services.

Relevant changes PRRR has introduced a diagonal strategy based on the life course and continuum of care approaches to cancer control. Its work has resulted in the delivery of the human papillomavirus vaccine to young girls in several settings and in the strengthening of prevention, screening and treatment delivery systems from the community to the tertiary level.

Lessons learnt This paper outlines the approach PRRR has taken as a country-aligned public–private partnership and the preliminary lessons learnt, including the need for flexible implementation, effective country coordination mechanism and regular communication with all stakeholders.

Abstracts in [عربي](#), [中文](#), [Français](#), [Русский](#) and [Español](#) at the end of each article.

Introduction

Every year cervical cancer kills an average of 275 000 women and five sixths of these deaths occur in low- and middle-income countries. In sub-Saharan Africa, for example, the incidence of cervical cancer and breast cancer is no higher than in other parts of the world, but the risk of death among women with either disease is much higher than in high-income countries – eight times higher in the case of cervical cancer – because African women face enormous barriers to treatment.^{1,2} If case-fatality is to be reduced, access to primary prevention, screening, treatment and palliative care will need to be facilitated and women’s cancers will have to be prioritized in countries’ health agendas.

Pink Ribbon Red Ribbon (PRRR), launched in September 2011, is an innovative public–private partnership that supports African and Latin American countries in accelerating the implementation of their national strategies for the control of women’s cancers. The partnership consists of four organizing members – the George W Bush Institute, the United States President’s Emergency Plan for AIDS Relief (PEPFAR), Susan G Komen for the Cure and the Joint United Nations Programme on HIV/AIDS – as well as Becton, Dickinson and Company, the Bill & Melinda Gates Foundation, the Bristol-Myers Squibb Foundation, the Caris Foundation, GlaxoSmithKline (GSK), IBM, Merck, QIAGEN and other organizations with more limited engagement. It seeks primarily to reduce mortality from cervical cancer by 25% between 2012 and 2016 among the women screened and treated through the programme and to reduce deaths from breast cancer by promoting early detection. Specifically, PRRR focuses on im-

proving access to the human papillomavirus (HPV) vaccine, increasing awareness of breast and cervical cancer prevention, diagnosis and treatment and reducing the stigma that so often surrounds a cancer diagnosis.

PRRR builds primarily on the PEPFAR platform and operates as a country-aligned partnership. Currently engaged in Botswana and Zambia with PEPFAR providing some support to nine additional countries – Cote d’Ivoire, Ethiopia, Kenya, Mozambique, Nigeria, Rwanda, South Africa, Uganda and the United Republic of Tanzania – PRRR aims to create innovative implementation models that can be used and scaled up globally. This paper outlines how PRRR supports countries and the lessons learnt after one year of implementation.

Approach

Diagonal integration

PRRR takes a diagonal approach to cancer control. This consists of leveraging existing – usually vertical – programmes focused on achieving disease-specific results with measures designed to enhance health systems more generally, often by integrating the activities of different disease programmes.³ A diagonal approach requires: (i) entry points for programme integration based on overlapping health services or patient populations; (ii) the identification of those health systems into which certain services can be integrated; and (iii) the development of a strategy for broader health systems strengthening.

Programmes for the control of human immunodeficiency virus (HIV) infection provide an ideal platform for the integration of cervical cancer control services because most are

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(Submitted: 28 November 2012 – Revised version received: 18 April 2013 – Accepted: 10 May 2013)

well funded, decentralized and designed to provide longitudinal care. PEPFAR-supported HIV interventions serve as PRRR's primary integration point for cervical cancer screening and treatment. PRRR's initial focus is on settings where the prevalence of HIV infection is high. In sub-Saharan Africa, countries having the highest burdens of HIV infection are those that also have the highest age-adjusted cervical cancer incidence and mortality rates,² partly because HIV-positive women are at higher risk of developing cervical cancer.⁴⁻⁶ In countries with strong, decentralized HIV service delivery systems, it is sensible and feasible to integrate HIV and cervical cancer services, a process that can be greatly facilitated by the experience these countries have gathered in the area of chronic disease management.^{7,8}

The easiest way to integrate cervical cancer services into existing HIV programmes is to add point-of-care screening using cervical visual inspection with acetic acid, followed by cryotherapy during the same visit, if required. Using this "see and treat" approach to screen and treat both women with HIV infection and uninfected women in the same facility broadens access to basic cervical cancer control services. The health system as a whole is strengthened. This approach has been scaled up in sub-Saharan Africa with support from PEPFAR and the results have been positive. In Zambia, for example, the Centre for Infectious Disease Research has reported broad health system improvements since the country implemented this "see and treat" approach.⁹

While the above method provides an entry point for screening and treatment, far more is needed for comprehensive cancer control. All of the following need to be available and accessible: advanced diagnostic and pathology services; chemotherapy and radiotherapy services; palliative care; educational interventions for both patients and health workers; stigma reduction strategies; trained workers who can deliver services; referral networks; and data systems for tracking patients across different levels of care. Not all of these elements can be easily integrated into HIV services. However, if they are strengthened in the course of improving cervical cancer screening and management, services for the control of other types of cancer, including breast cancer, will be strengthened as well. The same

skilled health workers and advanced diagnostics, referral, treatment and data management facilities can be used in the management of other cancers. There are also other possible entry points for cervical cancer control. For example, school-based campaigns for the promotion of vaccination against infection with the human papillomavirus (HPV) can be integrated with other interventions targeting adolescents, such as education about sexually transmitted infections or mass drug administration for trachoma control. The GAVI Alliance requires that the feasibility of integrating one or more adolescent health interventions be assessed in all its HPV demonstration projects.¹⁰

A final point is that programmes need to be linked across different levels of care, from the community to the referral facility level. PRRR's "see and treat" approach to cervical cancer detection and control can be implemented in primary care facilities. Its clinical integration with HIV services will increase its uptake, but uptake will also depend on community-level activities. Some examples of these are the sensitization activities supported by Susan G Komen for the Cure and Bristol-Myers Squibb, designed to increase knowledge, awareness and understanding of cervical cancer services. Many of the women screened will have lesions too advanced for cryotherapy and will have to undergo the loop electrosurgical excision procedure (LEEP) in a secondary hospital and perhaps radiotherapy, chemotherapy or both in a tertiary hospital. This highlights the need to support the strengthening of referral systems, patient tracking and data management systems, and laboratory and surgical capacity. IBM supports health management information systems; Becton, Dickinson and Company and the MD Anderson Cancer Center support laboratory and surgical capacity, respectively.

Country-owned, country-led

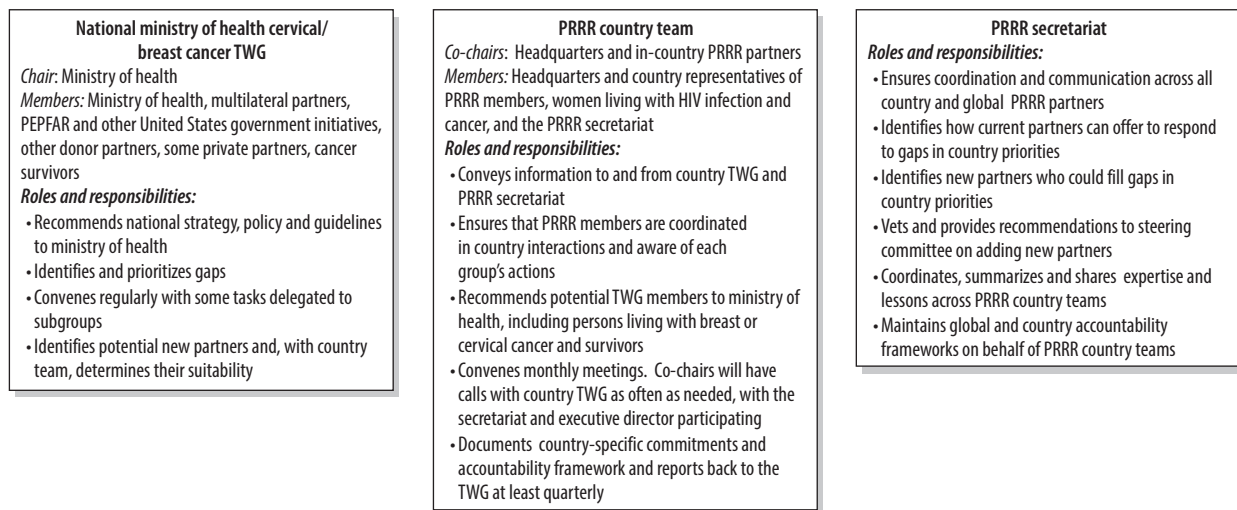
PRRR combines the flexibility of a public-private partnership with a structure that invites country ownership and leadership of national measures for the control of women's cancers (Fig. 1). PRRR focuses on filling those gaps in national cancer control strategies and plans that each government identifies and prioritizes. In most countries, the ministry of health convenes a technical working group composed of various

stakeholders from governmental, non-governmental, private and other types of organizations whose role is to develop the national strategy and plan for the control of women's cancers. The ministry of health takes primary responsibility for operationalizing the strategy and plan and relies on support from its partners, including PRRR, to identify, prioritize and fill gaps in implementation. By operating as a country-led public-private partnership in alignment with countries' goals, PRRR seeks to allay the concern of some advocates, scholars and policy-makers that public-private partnerships may shift country priorities towards commercial interests or "marketable" high-profile conditions.¹¹

PRRR's member organizations interface with each country's national technical working group through country-specific PRRR teams. These teams are composed of in-country staff members of each PRRR organization and of personnel at headquarters. The former understand national programme needs and the status of women's cancer control, whereas the latter can quickly mobilize resources. The country teams coordinate activities across member organizations and ensure alignment with country goals. Members of the country teams also hold one another accountable for commitments made to support particular countries.

The PRRR's secretariat, led by the partnership's executive director and housed at the George W Bush Institute, is a small body that coordinates the PRRR's activities. It is funded by the Bristol-Myers Squibb Foundation, the Caris Foundation, the Bill & Melinda Gates Foundation, GSK and QIAGEN. As country teams identify gaps and priorities, the secretariat works with existing partners to address them. For example, Zambia identified palliative care as a priority, so the secretariat engaged GSK to provide one million doses of morphine sulfate to Zambia annually for three years. The secretariat also identifies new potential partners to fill additional gaps. To qualify, these must have goals in alignment with those of the PRRR, be seen as valuable in filling specific gaps and agree to be held accountable for commitments.

Finally, the PRRR strategy is led by its steering committee, which operates like a board of directors and sets high-level directions. It is supported by working groups composed of specialized

Fig. 1. **Pink Ribbon Red Ribbon (PRRR) country engagement approach**

HIV, human immunodeficiency virus; PEPFAR, United States President's Emergency Plan for AIDS Relief; TWG, technical working group.

personnel from member organizations that focus on particular domains. For example, in consultation with the countries, the Targets, Indicators and Evaluation Working Group develops standardized indicators in alignment with World Health Organization (WHO) indicators and other types of measures, such as partnership assessment indicators. The Scale-up, Quality and Sustainability Task Group reaches beyond PRRR members to include WHO, the Union for International Cancer Control, the American Cancer Society, the GAVI Alliance and ministries of health in efforts to scale up interventions in a sustainable manner without compromising programme quality.

Effect of partnership activities

Although no formal impact evaluation has been conducted yet, service data suggest that PRRR support has strengthened country activities. According to data reported by the African Centre of Excellence for Women's Cancer Control, more than 27 049 women in Zambia were screened for cervical cancer through PRRR-affiliated programmes supported by PEPFAR in the 14-month period from December 2011, when the partnership was launched in Zambia, to January 2013. This is nearly twice the number of women who were screened in 2011 (14 363). Similarly, between July and December 2012 more than 1000 women in Botswana, a country with a

much smaller population, were screened through PRRR-affiliated programmes with support from PEPFAR. Nearly all the women who screened positive for cancerous and precancerous lesions – approximately 18% of those screened – received cryotherapy or LEEP or were referred for advanced diagnostics and treatment. In Zambia, more than 40 health workers have been trained in the “see and treat” cervical cancer screening and treatment approach. More than a dozen of these recently trained practitioners also work in other countries in sub-Saharan Africa. During the recently completed first phase of the HPV vaccine demonstration project in Botswana, more than 2000 girls were vaccinated in one week with support from Merck.

Coordination across sectors

PRRR members have pledged over 85 million United States dollars in money and in-kind support for the first five years of PRRR activities. However, public-private partnerships do more than mobilize resources. They capitalize on the particular efficiency and expertise of different organizations while avoiding duplication of effort among them.

Comprehensive cancer control requires that inputs be coordinated along the cancer continuum of care, from “vaccine to morphine”: primary prevention with HPV vaccination, basic screening and treatment, advanced diagnostics, surgery, chemotherapy, radiotherapy and palliative care.¹² Some of these inputs are outside the mandate

of particular organizations. For example, PEPFAR cannot provide the HPV vaccine because it is not directly related to HIV prevention, but Merck and GSK can donate it or offer it at appropriately discounted prices. Furthermore, private organizations can often provide expertise that others cannot match and can respond nimbly to certain country needs. They can, for instance, quickly procure necessary commodities. Other organizations, such as the Joint United Nations Programme on HIV/AIDS, enjoy a level of credibility with governments and civil society organizations, such as the Global Network of People Living with HIV, that facilitates support for advocacy, policy and guideline development.

Finally, to ensure that resources, once committed, are disbursed, PRRR uses an innovative accountability mechanism. Instead of creating rigid memoranda of understanding, bylaws or similar instruments to bind members to their pledges, PRRR exercises flexibility to allow them to adapt to changes in countries' strategies and needs. To promote accountability, PRRR requires that pledges be made publicly and every quarter its secretariat determines whether those commitments are on track and reports their status to all PRRR members.

Lessons learnt

In the process of creating a complex partnership, with its attendant challenges, we have learnt valuable lessons

Box 1. Summary of main lessons learnt

- A partnership must be flexible and adaptable; there is no single model for all countries to follow in creating the innovative implementation models for global scale-up and use that Pink Ribbon Red Ribbon (PRRR) advocates, and PRRR partners can and must apply the model that each country has identified as best.
- Communications within and between countries and among PRRR members at the global level must be active, clear and responsive to the needs of any partner and all structures and processes must enable and reward frank, bidirectional communication if problems are to be solved quickly.
- An efficient country coordination mechanism is essential; communication becomes much clearer and programmes move forward much faster if an active technical working group for women's cancers exists.

that may be helpful to other public-private partnerships (Box 1). Coordinating public-private partnerships is challenging because each partner has both shared and separate organizational goals. Different partners may be ready to move faster than countries can act. Processes are slower at the country level since countries often have to vet strategies with stakeholders. Effective implementation, therefore, requires a well-phased and flexible approach that

enables support to be mobilized when high-priority needs are identified. This will often involve starting opportunistically when partners can meet the prioritized needs, such as with basic screening and treatment. However, this approach works only if there is an efficient country coordination mechanism, ideally a national women's cancer technical working group that represents a wide range of stakeholders and can inform government policy and plans. Such an approach

also recognizes that implementation models will vary depending on what is most appropriate for particular countries and national preferences. Within public-private partnerships, frequent communication that quickly addresses the problems faced by any partner is critical for proper coordination and continued engagement of partners.

As high-income countries enter periods of fiscal austerity, it will become ever more important to develop models for increasing domestic and international private sector investment while simultaneously improving countries' capacity to implement programmes. The lessons we have learnt at PRRR can help other public-private partnerships avoid pitfalls and meet challenges. ■

Competing interests: None declared.

ملخص

الشراكة المبتكرة بين القطاعين العام والخاص: نهج قطري لمكافحة أمراض السرطان لدى النساء في أفريقيا
المشكلة في البلدان المنخفضة والمتوسطة الدخل، يضعف التكهن بسرطان الثدي وسرطان عنق الرحم، ويرجع ذلك جزئياً إلى عقبات العلاج. ولإصلاح هذا الوضع، يجب تعزيز النظم الصحية. الأسلوب الشريط الوردي والشريط الأحمر (PRRR) شراكة مبتكرة تم تصميمها لزيادة الاستثمارات العامة والخاصة في مجال الصحة العالمية وللبناء على منهاج عمل خطة الرئيس الطارئة للإغاثة في مجال مكافحة الأيدز الناجح لمكافحة سرطان الثدي وسرطان عنق الرحم في أفريقيا جنوب الصحراء الكبرى وأمريكا اللاتينية. وعن طريق دعم مجموعة شاملة من التدخلات التي تملكها وتوجهها البلدان، تسعى الشريط الوردي والشريط الأحمر إلى تقليل الوفيات الناجمة عن سرطان عنق الرحم بين النساء اللاتي يتم فحصهن وعلاجهن من خلال البرنامج وإلى تقليل الوفيات الناجمة عن سرطان الثدي عن طريق الكشف المبكر. المواقع المحلية تدعم الشريط الوردي والشريط الأحمر، في مرحلتها الأولية، حكومات بوتسوانا وزامبيا وغيرها من البلدان في توسيع نطاق تغطية توقي سرطان عنق الرحم وفحصه وعلاجه - وخصوصاً لدى النساء اللاتي ترتفع لديهن مخاطر الإصابة بعدوى فيروس العوز المناعي البشري - وفي تعزيز خدمات الثقيف بسرطان الثدي ومكافحته.

التغيرات ذات الصلة قدمت الشريط الوردي والشريط الأحمر استراتيجية قطرية تستند على شمولية نهج الرعاية لجميع مراحل الحياة واستمراريته بغية مكافحة السرطان. وأسفر عملها عن إيتاء لقاح فيروس الورم الحليمي البشري إلى الفتيات الصغيرات في عدة مواقع كما أسفر عن تعزيز نظم التوقي والفحص وإيتاء العلاج من المجتمع المحلي على المستوى الثالثي.

الدروس المستفادة توضح هذه الورقة النهج الذي اتخذته الشريط الوردي والشريط الأحمر كشراكة بين القطاع العام والخاص بتنسيق من البلد والدروس المبدئية المستفادة، بما في ذلك الحاجة إلى مرونة التنفيذ وآلية فعالة للتنسيق بين البلدان والاتصال المنتظم مع أصحاب المصلحة جميعهم.

摘要

创新的公私合作关系：应对非洲妇女癌症的对角线方法

问题 在中低收入国家，乳腺癌和宫颈癌的预后较差，部分原因在于治疗的障碍。要纠正此问题，必须强化卫生系统。

方法 粉红丝带红丝带 (PRRR) 是一种创新的合作关系，旨在利用全球卫生的公共和私人投资以及建立成功的艾滋病紧急救援计划 (PEPFAR) 平台，以应对撒哈拉以南非洲地区和拉丁美洲的乳腺癌和宫颈癌。PRRR 旨在借助支持一整套全面的国有及国家推动的干预，通过计划减少经筛查和治疗的女性宫颈癌死亡人数，并通过促进早期检测减少乳腺癌死亡人数。

当地状况 在初始阶段，PRRR 支持博茨瓦纳、赞比亚和

其他国家的政府扩大宫颈癌预防、筛查和治疗覆盖面（尤其是针对感染艾滋病毒的高风险妇女）并加强乳腺癌教育和控制服务。

相关变化 PRRR 在癌症控制中引入了一种基于生命历程和连续护理方法的对角线战略。其工作成果包括在多个设置中为年轻女孩提供人类乳头状瘤病毒疫苗和强化从社区到第三层面的预防、筛查和治疗交付系统。

经验教训 本文概述 PRRR 采取的作为向国家看齐的公共和私人合作关系的方法以及初步的经验教训，包括灵活实施、有效国家协调机制、定期与所有利益相关者沟通的需要。

Résumé

Partenariat public-privé novateur: une approche diagonale de la lutte contre les cancers féminins en Afrique

Problème Dans les pays à revenus faible et moyen, les cancers du sein et du col de l'utérus ont un mauvais pronostic, notamment en raison des obstacles au traitement. Pour remédier à cette situation, les systèmes de santé doivent être renforcés.

Approche Le Pink Ribbon Red Ribbon (PRRR) est un partenariat novateur, conçu pour tirer parti des investissements publics et privés dans la santé mondiale et pour s'appuyer sur la réussite de la plateforme du President's Emergency Plan for AIDS Relief (PEPFAR) dans la lutte contre les cancers du sein et du col de l'utérus en Afrique subsaharienne et en Amérique latine. En soutenant un ensemble complet d'interventions élaborées et dirigées au niveau national, le PRRR cherche à réduire les décès dus au cancer du col de l'utérus chez les femmes dépistées et traitées par le programme, mais aussi à réduire le nombre de décès résultant d'un cancer du sein en favorisant la détection précoce.

Environnement local Dans sa phase initiale, le PRRR aide les gouvernements du Botswana, de la Zambie et d'autres pays à

développer la prévention, le dépistage et la couverture du traitement du cancer du col de l'utérus - en particulier chez les femmes qui présentent un risque élevé d'infection par le virus de l'immunodéficience humaine - et à renforcer les services d'informations et de contrôle du cancer du sein.

Changements significatifs Le PRRR a mis en place une stratégie diagonale, basée sur des approches de lutte contre le cancer au fil de la vie et de manière continue. Ses travaux ont abouti à l'administration du vaccin contre le papillomavirus humain à des jeunes filles dans plusieurs contextes, ainsi qu'au renforcement des systèmes de prévention, de dépistage et d'administration du traitement, du niveau communautaire à l'enseignement supérieur.

Leçons tirées Le présent document décrit l'approche du PRRR comme partenariat public-privé au niveau national, et les leçons préliminaires tirées, y compris la nécessité d'une mise en œuvre flexible, d'un mécanisme de coordination nationale efficace et d'une communication régulière avec toutes les parties prenantes.

Резюме

Инновационное государственно-частное партнерство: диагональный подход к борьбе с раком женщин в Африке

Проблема В странах с низким и средним уровнем дохода заболевания раком молочной железы и шейки матки имеют плохой прогноз, отчасти из-за наличия барьеров для лечения. Для исправления этой ситуации требуется укрепить системы здравоохранения.

Подход Инновационное партнерство Pink Ribbon Red Ribbon (PRRR) предназначено для привлечения государственных и частных инвестиций в области глобального здравоохранения и успешного создания на основе Плана президента по борьбе со СПИДом (PEPFAR) платформы для борьбы с раком молочной железы и шейки матки в странах Африки к югу от Сахары и Латинской Америки. Поддерживая широкий диапазон мер, предпринимаемый по инициативе самих стран, партнерство PRRR стремится снизить смертность женщин от рака шейки матки, предлагая обследование и лечение в рамках программы, а также смертность от рака молочной железы, способствуя его раннему выявлению.

Местные условия На начальном этапе партнерство PRRR оказывает поддержку правительствам Ботсваны, Замбии и других стран в расширении профилактики рака шейки матки, охвата

обследованиями и лечением — особенно среди женщин группы высокого риска, инфицированных вирусом иммунодефицита человека, — а также в просвещении населения о раке молочной железы и контроле за услугами.

Осуществленные перемены PRRR использует диагональную стратегию, основанную на комплексном применении различных методов борьбы против рака в течение всего срока жизни. Благодаря усилиям этой организации была введена вакцина против вируса папилломы человека молодым девушкам в нескольких странах и укреплены системы профилактики, диагностики и лечения как на уровне местных сообществ, так и высокоспециализированных учреждений.

Выводы В настоящем документе излагается подход, используемый в различных странах государственно-частным партнерством PRRR и предварительные уроки, вынесенные из деятельности организации, в том числе потребность в более гибкой реализации программы, эффективном механизме координации внутри страны и регулярного общения со всеми заинтересованными сторонами.

Resumen

Innovadora asociación público-privada: un enfoque transversal para combatir los cánceres femeninos en África

Situación En los países con ingresos medios y bajos, los cánceres de mama y de cuello uterino tienen un pronóstico desfavorable que se debe, en parte, a las barreras para el tratamiento. Para solucionar esa situación, es necesario fortalecer los sistemas sanitarios.

Enfoque El propósito de la innovadora asociación Pink Ribbon Red Ribbon (PRRR) es aprovechar las inversiones públicas y privadas en salud mundial y ampliar la plataforma del Plan de Emergencia del Presidente para la lucha contra el SIDA (PEPFAR), que ha logrado muy buenos resultados en su lucha contra el cáncer de mama y de cuello uterino en África subsahariana y América Latina. Mediante el apoyo a un amplio conjunto de intervenciones individuales en cada uno de los países, encargados de gestionarlas ellos mismos, PRRR pretende reducir las muertes causadas por el cáncer de cuello uterino entre las mujeres examinadas y sometidas a tratamiento a través del programa, así como las muertes por cáncer de mama por medio de la promoción de la detección temprana.

Marco regional En la fase inicial, Pink Ribbon Red Ribbon está ofreciendo su apoyo a los gobiernos de Botswana, Zambia y otros países

para expandir la prevención, la detección y la cobertura del tratamiento del cáncer de cuello uterino, en especial a las mujeres de alto riesgo infectadas por el virus de la inmunodeficiencia humana, y para fortalecer los centros de servicio y la educación sobre el cáncer de mama.

Cambios importantes Pink Ribbon Red Ribbon ha introducido una estrategia transversal, basada en enfoques de atención sanitaria continuos a lo largo de la vida para controlar el cáncer. Gracias a su trabajo, ha sido posible administrar la vacuna del virus del papiloma humano a chicas jóvenes en numerosos entornos, así como fortalecer los sistemas de prevención, detección y tratamiento de la comunidad hasta el nivel especializado.

Lecciones aprendidas Este documento resume el enfoque que Pink Ribbon Red Ribbon ha adoptado como asociación público-privada, el cual se ajusta a los países y las lecciones preliminares aprendidas, como la necesidad de una implementación flexible, un mecanismo de coordinación nacional eficaz y una comunicación regular con las partes implicadas.

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