

Evidence base for children affected by HIV and AIDS in low prevalence and concentrated epidemic countries: applicability to programming guidance from high prevalence countries

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As global commitment grows to protect and support children affected by HIV and AIDS, questions remain about how best to meet the needs of these children in low prevalence settings and whether information from high prevalence countries can appropriately guide programming in these settings. A 2007 search for the evidence in low prevalence settings on situational challenges of HIV and AIDS-affected children and interventions to address these challenges identified 413 documents. They were reviewed and judged for quality of documentation and scientific rigor. Information was compiled across eight types of challenges (health and health care, nutrition and food security, education, protection, placement, psychosocial development, socioeconomic status, and stigma/ discrimination); and also assessed was strength of evidence for situational and intervention findings. Results were compared to three programming principles drawn from research in high prevalence countries: family-centered preventive efforts, treatment, and care; family-focused support to ensure capacity to care for and protect these children; and sustaining economic livelihood of HIV and AIDS-affected households. Findings show that children affected by HIV and AIDS in low prevalence settings face increased vulnerabilities similar to those in high prevalence settings. These findings support seeking and testing programmatic directions for interventions identified in high prevalence settings. However, low prevalence settings/countries are extremely diverse, and the strength of the evidence base among them was mixed (strong, moderate, and weak in study design and documentation), geographically limited, and had insufficient evidence on interventions to draw conclusions about how best to reduce additional vulnerabilities of affected children. Information on family, economic, sociocultural, and political factors within local contexts will be vital in the development of appropriate strategies to mitigate vulnerabilities.

Keywords: orphans; vulnerable children; HIV; AIDS; low prevalence countries

Introduction

Brazil – "The stories of the great majority of children affected by HIV/AIDS and of street children are of marginality: social exclusion, family abandonment, dire poverty, *favela* life, drug trafficking and consumption, alcohol, parental abuse, sexual exploitation, and ultimately death." (Abadia-Barrero, 2002)

India – "Within one year, I have changed six houses due to the peoples' behaviour and owner's objection because I am HIV positive. Due to this my children's study and their friends circle is getting affected." (Loudon, Bhaskar, & Bhutia, 2007).

Countries with low prevalence or concentrated epidemics¹ are increasingly introducing special programs to support children affected by HIV and AIDS. This paper defines "children affected by HIV and AIDS" as children of 0–18 years who are infected by HIV,

orphaned by AIDS, living with HIV-positive parents or other adults, and/or are vulnerable to HIV infection. Data gaps preclude reliable estimates of absolute numbers of children affected by HIV and AIDS, especially in low prevalence and concentrated epidemic countries. While the percentage of orphaned children is higher in sub-Saharan Africa, the estimated absolute number of orphans – 79 million – outside Africa is larger than the number in Africa – 53 million (UNICEF, UNAIDS, & PEPFAR, 2006). Programming recommendations in low prevalence settings are often based on the experience of high prevalence countries, but does the evidence support this?

This paper first summarizes the strength of existing evidence on situational challenges children affected by HIV and AIDS face in low prevalence and concentrated epidemic settings and on possible interventions to address those challenges based on our

recent literature review (Quality Assurance Project [QAP] & UNICEF, 2008). While the evidence base for programming for these children in high prevalence countries is increasing rapidly, no review for low prevalence settings existed until our 2008 review.

Second, this paper examines evidence related to the marginal impact of HIV and AIDS on children in low prevalence settings: How are children affected by HIV and AIDS more vulnerable than other children in their communities?

Third, we examine how findings emerging from the low prevalence evidence base support programming principles drawn from high prevalence countries. As global commitment grows to protect and support these children, so has the debate over whether information from high prevalence countries can appropriately guide programming for children in lower prevalence settings. The extent of this relevance has been inadequately examined; information is needed on what similarities (or differences) in vulnerabilities exist in varying epidemiological settings.

Methodology

The findings here stem from a literature review of evidence for low prevalence countries (QAP & UNICEF, 2008) and a comparison with programming principles drawn from research in high prevalence countries (Joint Learning Initiative on Children and HIV and AIDS [JLICA], 2008). The former examined published and unpublished literature worldwide on situational challenges of HIV and AIDS-affected children and effectiveness of interventions to support them. Sources included UNICEF's orphans and vulnerable children (OVC) database, ALADIN Research Portal shared digital library, Cochrane Collection, PubMed, Google, WHO, UNAIDS, citations in relevant reports, and networking. Of 14,343 "hits," 413 relevant documents were reviewed. Evaluation by one or more reviewers included identification of each study's methodology based on widely accepted categories of methodological strength (Royal Australian College of General Practitioners [RACGP], 2002) and strength of documentation evidence, using pre-determined criteria about the situation and/or intervention, methodology, analysis, and results in relation to previous evidence.

The review assessed the strength of evidence from all studies for eight challenges children affected by HIV and AIDS face: health/health care, nutrition/food security, education, protection, placement, psychosocial development, socioeconomic status, and stigma/discrimination. Within each challenge, situational evidence was compiled on how children are affected

by HIV and AIDS and on the degree to which interventions resolved that challenge.

Within the eight challenge areas and for each situation and intervention, findings were categorized as having strong or moderate evidence, and gaps in knowledge were identified for which evidence was weak or non-existent. "Strong evidence" indicated that relevant studies provided consistent results and used rigorous, widely accepted research practices to control biases. "Moderate evidence" indicated recurrent program-relevant findings based on empirical data that were insufficient to rule out competing explanations for attribution. "Gaps in knowledge" described areas for which programming information is important but for which no evidence was found, or claims within the literature had little or no supporting data.

To examine the comparability of evidence to programming principles from high prevalence countries, this paper relied on conclusions drawn from research summarized in The Integrated Report of JLICA Learning Group 1 (LG1) on *Strengthening Families* (JLICA, 2008). We consolidated the seven recommendations made in that report into three programming principles to which low prevalence findings were compared.

Results

Quality of evidence on children affected by HIV and AIDS in low prevalence and concentrated epidemic settings

Overall quality of the evidence base was mixed, concentrating predominately on situational analyses with limited information on effective interventions (Table 1). Studies were also geographically concentrated - often from Asia, with few from Latin America, the Caribbean, Eastern Europe, or low prevalence countries in Africa. Moreover, most had weak methodologies: 67% were descriptive and only 20% used quasi-experimental or stronger designs. Another 5% included time series but no controls, and 8% were more conceptual or policy documents based on data gathered by others. The most common weaknesses were inadequate description of the methodology, insufficient analysis, and overextending links between findings and conclusions. Some studies also had insufficient evidence to support conclusions or failed to discuss study limitations or sample size. Several studies with strong designs lacked statistical analysis of results, and many covering both situation and an intervention had strong evidence on the situation, but weak documentation and evidence about the intervention itself.

Table 1. Quality of the documentation of studies in the evidence base on children affected by HIV and AIDS in low prevalence and concentrated epidemic countries.

		Strength of documentary evidence		
Type of study	Number of studies $(n(\%))$	Good	Fair	Poor
Situation	256 (62%)	137	56	63
Intervention	103 (25%)	54	30	19
Situation + intervention	54 (13%)	23	20	11
Total	413 (100%)	214 (52%)	106 (26%)	93 (23%)

Source: Quality Assurance Project (QAP, 2008). Note: One study on methodology was excluded.

Evidence on marginal impact of HIV and AIDS on children and effective interventions

Table 2 outlines evidence on additional vulnerabilities faced by HIV and AIDS-affected children, and interventions addressing these vulnerabilities. Evidence on health and nutrition disparities between affected and unaffected children was mixed. For health and health care, strong evidence exists that children living in HIV and AIDS-affected households have no additional morbidity risk than children in non-HIV households (Alkenbrack, Chettra, & Fordythe, 2004; Pradhan, Sundar, & Singh, 2006), but moderate evidence indicates that these children are less likely to seek health care (Gestion d'entreprise en culture Africaine [GECA], Ministère de la Famille de la Protection Sociale et de la Solidarité, Projet Plurisectoriel de Lutte contre le VIH et SIDA, et al., 2005; Jianhua, Chun, & Kangmai, 2006; Loudon, et al., 2007; Verma, Salil, & Mendoca, 2002). Findings also indicate that uninfected children born to HIV-infected mothers (at advanced disease stage or deceased) have increased mortality risk relative to uninfected children born to uninfected mothers (Newell, Coovadia, & Cortina-Boraja, 2004). No strong or moderate evidence was found on interventions to reduce disparities or barriers to health service utilization for affected children in low prevalence areas.

For nutrition and food security, moderate evidence suggests that HIV and AIDS-affected children are more likely to live in food insecure-households than those in unaffected households (Jianhua et al., 2006; Niang & van Ufford, 2007), but limited information exists on the nutritional status of affected children (except for HIV-infected children). Although limited geographically, there is moderate evidence that malnourished affected children have substantial weight gain following community-based education and supplementary feeding programs (Kadio, Kaba, & Blackett-Dibinga, 2005).

HIV and AIDS-affected children and families experience a range of socioeconomic vulnerabilities in low prevalence settings. Strong evidence shows that households with HIV-positive adults have lower incomes, increased expenditures (particularly medical), and lost productivity and economic decline compared to unaffected households (Alkenbrack et al., 2004; Jianhua et al., 2006; Pradhan et al., 2006; Wyss, Hutton, & N'Diekhor, 2004). Affected households are more likely to sell assets, assume debt, and receive greater subsidized income than unaffected families (Jianhua et al., 2006; Pradhan et al., 2006). Moderate evidence indicates that affected children are more likely to work for wages due to household economic decline (Alkenbrack et al., 2004; Pradhan et al., 2006), and that extended families and caretakers of AIDS orphans have difficulty meeting basic needs, e.g., clothing, care, or education (Abbott Labs Fund, 2002; Safman, 2004). Moderate evidence on interventions suggests that cash transfer programs improve household spending on food, children's enrollment rates, and nutritional status (Rawlings & Rubio, 2005).

Educational disparities between affected and unaffected children were mixed, varying by context and situation. The literature focusing on differences in school enrollment between orphans and non-orphans (irrespective of HIV and AIDS) demonstrated very divergent results (Ainsworth & Filmer, 2002; Case, Paxson, & Ableidinger, 2004). Studies examining enrollment rates among children living in HIVaffected households compared to unaffected children (Alkenbrack et al., 2004; Jianhua et al., 2006; Pradhan et al., 2006; UNICEF & Save the Children Foundation [SCF], 2007) found little evidence of differences among younger children, but additional vulnerabilities for affected adolescents: lower school enrollment, higher drop-out rates, and greater schooling disruptions (Alkebrack et al., 2004; Jianhua et al., 2006; Pradhan et al., 2006; UNICEF & SCF, 2007). Although evidence is moderate, studies suggest these challenges were not just related to school expenditures, but also to the responsibilities these children assume for ill parents (Human Rights Watch [HRW],

Table 2^a. Selected strong and moderate evidence on situations and interventions related to increased vulnerability of children affected by HIV and AIDS.

Priority challenge	Selected findings on situation and interventions	Description of evidence base
Health and health Care	 Situation: Healthy HIV-infected mothers reduce risk of mortality of their young children, both HIV-infected and uninfected – Strong evidence from Burkina Faso, Ivory Coast (Newell, Coovadia, & Cortina-Boraja, 2004) Situation: Children in HIV and AIDS-affected households have comparable morbidity to similar children in unaffected households – Moderate evidence from Cambodia, India (Alkenbrack, Chettra, & Forsythe, 2004; Pradhan, Sundar, & Singh, 2006) Situation: Children in affected households make fewer health care visits than children in unaffected households – Moderate evidence from Benin, China, India (Gestion d'entreprise en culture Africaine [GECA], Ministère de la Famille de la Protection Sociale et de la Solidarité, Projet Plurisectoriel de Lutte contre le VIH et SIDA, et al., 2005; Jianhua, Chun, & Kangmai, 2006; Loudon, Bhaskar, & Bhutia, 2007; Verma, Salil, & Mendoca, 2002) 	Several studies with strong and moderate design but limited geographical coverage
Nutrition	Situation: Affected children reside in food-insecure households more often than unaffected children – Moderate evidence from China, Senegal (Jianhua et al., 2006; Niang & van Ufford, 2007) Intervention: Community-based education and supplementary programs improve nutritional status – Moderate evidence from Guinea (Kadio, Kaba, & Blackett-Dibinga, 2005)	Most studies focus on HIV- infected children, with limited assessment of other affected children; limited geographic coverage
 Situation: Affected households are economically worse off than unaffected households and express concerns about meeting basic needs – Strong evidence from Burkina Faso, Cambodia, China, India, Thailand, Chad (Abbott Labs Fund, 2002; Alkenbrack et al., 2004; Jianhua et al., 2006; Pradhan et al., 2006; Safman, 2004; Wyss, Hutton, & N'Diekhor, 2004) Situation: Children living in affected households have increased workforce participation relative to similar children living in unaffected households – Moderate evidence from Cambodia, India (Alkenbrack et al., 2004; Pradhan et al., 2006) 		Consistent, strong findings on situation; limited evidence on interventions that target additional vulnerabilities related to HIV and AIDS in the household
Education	 Situation: School enrollment among younger affected children is comparable to unaffected children, but older affected children appear less likely to be enrolled in school – Strong evidence from Cambodia, China, India, PR Lao (Alkenbrack, 2004; Jianhua et al., 2006; Pradhan et al., 2006; UNICEF & Save the Children Foundation [SCF], 2007) Situation: Effect of orphanhood on school enrollment is mixed – Moderate evidence from Niger, Ghana, Chad, Benin, Nigeria (Ainsworth & Filmer, 2002; Case, Paxson, & Ableidinger, 2004) 	Inconsistent findings across countries but relatively broad geographic coverage; large focus on orphans; few studies on interventions

Priority challenge	Selected findings on situation and interventions	Description of evidence base
	 Situation: Caretakers face difficulties ensuring school attendance due to several economic factors Moderate evidence from (Human Rights Watch [HRW], 2005; Jianhua et al., 2006; New ERA Team, 2006; Pradhan et al., 2006; Safman, 2004; UNICEF, 2002) Intervention: Education provides protection against HIV infection – world Moderate evidence from (Global Campaign for Education [GCE], 2004; World Bank, 2002) 	
Psycho-social support	 Situation: Some affected children are more vulnerable to psychological problems than similar unaffected children – Strong evidence from USA, China, India, Western Europe (Brandt, 2005; Hough, Brumitt, & Templin, 2003; Jianhua et al., 2006; Lester, Rotheram-Borus, & Lee, 2006; Loudon et al., 2007; Nostlinger, Bartoli, & Gordillo, 2006; Pelton & Forehand, 2005) Intervention: Psychosocial services improve psychological well-being of children living with HIV-infected parents – Moderate evidence from United States (Pivnick & Villegas, 2000; Rotheram-Borus, Lee, & Leonard, 2003) Situation: Family, parent, and caretaker functioning are most important predictors of HIV and AIDS-affected children's psychosocial well-being – Strong evidence from USA, Western Europe (Bauman, Foster, & Silver, 2006; Nostlinger et al., 2006) Situation: Vulnerability due to HIV and AIDS differs across ages – Moderate evidence from Western Europe, USA (Brandt, 2005; Nostlinger et al., 2006) 	Consists largely of industrialized countries with strong study design, with scarce information across sub-groups of affected children
Protection • Situation: Additional HIV and AIDS-related vulnerabilities relate to confidentiality, discrimination, and medical consent Moderate evidence from (Jackson, 2006a, b; Sealy-Burke, 2005a, b) • Intervention: Small programs have successfully helped families affected by HIV and AIDS gain access to services within their rights – Moderate evidence from South East Asia, Senegal (Borthwick, 2004; Samaras, 2004) • Situation: Legal frameworks often make no specific mention of children affected by HIV and AIDS – Moderate evidence from India, multi-country Caribbean (Jackson, 2006a; Sealy-Burke, 2005a)		Almost exclusively qualitative evidence, much of it not specific to children affected by HIV and AIDS, but related to all children
Placement	 Situation: Children born to HIV-positive mothers and HIV-infected children face increase risk of abandonment – Moderate evidence from Russia, Thailand, Vietnam, Eastern Europe (Borthwick, 2004) Situation: Families and children's homes (including orphanages) are more reluctant to assume care for HIV-infected children – Moderate evidence from Russia, India (HRW, 2005; Rau & Lee, 2005) 	Solid cross-regional evidence of where children are living, limited evidence of additional vulnerabilities, no information on effective interventions to remove additional barriers to placement for children affected by HIV and AIDS

Table 2^a (Continued)

Priority challenge	Selected findings on situation and interventions	Description of evidence base	
	• Intervention: Institutional care should be the last resort for HIV-affected children – several industrialized countries, Strong evidence from Russia, Eastern Europe, PR Lao (Frank, Klass, Earls & Eisenberg, 1996; Tobias, 2000; UNICEF & SCF, 2007)		
Stigma and discrimination	 Situation: Affected children anticipate, fear, and experience stigma and discrimination in communities, public services, and caretaking situations, although this may not reflect experiences of all affected children – multi-country Moderate evidence from Asia, Cambodia, Scotland, Benin, India, Thailand, China (Borthwick, 2004; Carswell, Ramage, & Richmond, 2005; Cree, Kay, & Tisdall, 2004; GECA et al., 2005; Loudon et al., 2007; Safman, 2004; Save the Children UK [SCF/UK], 2006a; Verma et al., 2002) Interventions: Anti-retroviral treatment – Brazil, Haiti (Abadia-Barrero & Castro, 2006; Castro, 2005), visibility and participation – Moderate evidence from Haiti, China (Loudon, 2006; SCF/UK, 2006a), and anti-stigma information – Thailand (Henessey, 2001) improve acceptance and inclusion of affected children 	Large moderate evidence base with modest geographic representation; some findings on relevant interventions, although not strong study designs	

^aThis table consolidates findings from a review of the evidence base on children affected by HIV and AIDS in low prevalence and concentratedf epidemic countries (QAP, 2007).

2005; Jianhua et al., 2006; New ERA Team, 2006; Pradhan et al., 2006; Safman, 2004; UNICEF, 2002).

Much of the strong evidence on psychosocial vulnerabilities the affected children face comes from low prevalence, Western, industrialized countries. These studies indicate additional vulnerability of children with one or more parents living with AIDS, including anxiety; behavior problems; and feelings of shame, worry, or stress (Brandt, 2005; Hough, Brumitt, & Templin, 2003; Jianhua et al.,

Table 3. Consolidation of recommendations for high prevalence countries into three programming principles.

	commendations as outlined in JLICA LG1 mmary ^{a,b}	Programming principles	
•	Improve the prevention of HIV infection among adults and children Expand treatment of adults and children living with HIV Adopt family-focused approaches to HIV and AIDS prevention, treatment, and care	#1: Family-centered preventive efforts, treatment, and care	
•	Focus on families to support children affected by HIV and AIDS Support extended families	#2: Family-focused support to ensure capacity to care for and protect HIV and AIDS-affected children	
•	Implement income transfer programs	#3: Sustaining economic livelihood of HIV and AIDS-affected households	

^aJoint Learning Initiative on Children and HIV and AIDS (JLICA) (2008).

^bA seventh recommendation (build partnerships between the state and civil society for comparative advantages) was not included in this review given limited relevant findings in the evidence base in low prevalence and concentrated epidemic countries.

2006; Lester, Rotheram-Borus, & Lee, 2006; Loudon et al., 2007; Nostlinger, Bartoli, & Gordillo, 2006; Pelton & Forehand, 2005). However, the susceptibility to psychosocial stressors varied widely, suggesting that these challenges are not consistent in all HIV and AIDS-affected children (Carswell, Ramage, & Richmond, 2005; Lester et al., 2006). Strong evidence shows that family functioning is a significant predictor of psychosocial condition among children with HIV-infected parents (Bauman, Foster, & Silver, 2006; Nostlinger et al., 2006), and moderate evidence shows that in some cases, HIV and AIDS-affected children receive lower levels of affection and protective support (Abbott Lab Fund, 2001; Brandt, 2005; Save the Children UK [SCF/UK], 2006b). Moderate evidence suggests that affected adolescents particularly have higher vulnerability than their unaffected or vounger counterparts (Brandt, 2005; Nostlinger et al., 2006; Ostrom, Serovich, & Lim, 2006). Evidence on interventions was moderate, showing that cognitive behavior-skills training improved affected children's ability to cope with HIV diagnosis, stress, or death (Rotheram-Borus, Lee, & Leonard, 2003; Pivnick & Villegas, 2000), but little information was found on types of interventions across stages of illness, caretaking situations, or in non-industrialized contexts.

Situational findings on protection of HIV and AIDS-affected children points to many gaps in low prevalence settings, such as protection against child labor, exploitation, and abuse (Abbott Labs Fund, 2001; Borthwick, 2004; Henessey, 2001; Sealy-Burke, 2005b; UNICEF, 2005). While many protection issues are valid for all vulnerable children, legal frameworks in many countries overlook these children (Jackson, 2006a; Sealy-Burke, 2005a). Some evidence of additional HIV and AIDS-specific vulnerabilities for affected children relates to confidentiality, discrimination, and medical consent (Sealy-Burke, 2005a,b; Jackson, 2006a,b). Moderate intervention data show that small programs have successfully helped affected families gain access to services (Borthwick, 2004; Samaras, 2004).

Moderate evidence on placement vulnerabilities included higher risk of abandonment (homelessness) among children born to HIV-positive mothers (Borthwick, 2004) and reluctance by non-kin families, children's homes, and orphanages to care for HIVinfected children (HRW, 2005; Rau & Lee, 2005). Although strong intervention evidence showed that orphanages or other residential care facilities should be the last care option for vulnerable children (Frank, Klass, Earls & Esienberg, 1996; Tobias, 2000; UNICEF & SCF, 2007), no information on interventions to address placement barriers for affected children existed.

Although there were no rigorous studies on stigma, the sheer volume of documentation indicates that HIV and AIDS-affected children anticipate and experience increased stigma and discrimination by communities and in care-taking situations. Discrimination includes exclusion, verbal abuse, harassment, involuntary separation from parents, and denial of access to services (Borthwick, 2004; Cree, Kay, & Tisdall, 2004; GECA et al., 2005; Loudon et al., 2007; Safman, 2004; SCF/UK, 2006a; Verma et al., 2002). However, moderate evidence suggests that not everyone treats these children that way (Carswell et al., 2005), which in itself is important for understanding possible interventions. Evidence on interventions to address stigma was moderate and included antiretroviral treatment (Abadia-Barrero & Castro, 2006; Castro, 2005), increased community-level visibility and participation by affected children (Loudon, 2006; SCF/UK, 2006a), and school-based anti-stigma information (Henessey, 2001).

Comparability of findings in low prevalence settings to programming principles from high prevalence countries

Table 3 outlines three programming principles synthesized from recommendations from research in high prevalence countries (JLICA, 2008). The first principle argues that keeping families together through parental and child HIV prevention and treatment is integral to prevention and support for HIV and AIDS-affected children. Findings from the evidence base in low prevalence countries are consistent with this guidance. Most of these children are uninfected and non-orphaned, living with HIV-positive parents (UNICEF, 2007). Findings show that many of the additional vulnerabilities for children are related to the effects of their parents' severe illness and death. Removing the source of these vulnerabilities would help.

The second principle notes that support should focus on families, not just children, to ensure functional family capacity as essential for children's welfare, protection, and care. Our findings from low prevalence countries indicate that additional vulnerabilities are generally related to additional economic hardships caused by disruptions due to HIV and AIDS in the household (Alkenbrack et al., 2004; Jianhua et al., 2006; Pradhan et al., 2006; Wyss et al., 2004). We found no studies focusing on family-based interventions specific to HIV-affected household as such, but findings indicate this as a good direction to explore. Qualitative studies in low prevalence settings indicate similar "broad" notions of family, with children affected by HIV and AIDS generally living with surviving parents and grandparents (Case et al., 2004; Knodel & Saengtienchai, 2005; Safman, 2004; UNICEF, 2005).

The third principle argues that preserving household financial capacity is critical to mitigating the negative impact of HIV and AIDS on children and households. In low prevalence settings, this area clearly needs intervention. Situational findings, such as increased work participation by children (Alkenbrack et al., 2004; Pradhan et al., 2006), declining household financial capacities (Alkenbrack et al., 2004; Jianhua et al., 2006; Pradhan et al., 2006; Wyss et al., 2004), and challenges related to food security and access to education resulting from financial constraints (HRW, 2005; Jianhua et al., 2006; New ERA Team, 2006; Niang & van Ufford, 2007; Pradhan et al., 2006; Safman, 2004; UNICEF, 2002), reveal the need to address households' economic challenges. However, findings show that not all HIV and AIDS-affected youth are living with adults; some live in institutions or on the street, or were displaced by war. Their economic livelihood may require additional, varied support (UNFPA, 2006). Intervention evidence in low prevalence settings on what should be done to sustain household economies over time is still limited.

Discussion

Programming recommendations require strong evidence describing specific challenges facing children and families affected by HIV and AIDS and strong evidence on which interventions work for which situation(s). This review suggests that, overall, additional vulnerabilities experienced by affected children and families in low prevalence settings are similar to those experienced by affected children in high prevalence settings. When compared to programming principles from high prevalence countries, evidence from this review supports the logic of seeking interventions similar to those proposed for high prevalence countries.

However, given the wide variation of low prevalence countries, effective programming must be tailored to the local context. From a programmatic standpoint, we argue that this observed comparability in situational evidence between high and low prevalence countries should not be viewed as sufficient for developing strategies for HIV and AIDS-affected children in all low prevalence settings. While the situational evidence tells us the vulnerabilities these children may experience, it does not indicate how many children have these vulnerabilities, in

what groups they can be found, or how to address those vulnerabilities both effectively and efficiently. Low prevalence settings offer a dearth of literature.

A second complication in using high prevalence findings for programming in low prevalence settings is that the impact of HIV and AIDS and its cultural context are often indistinguishable. Most high prevalence countries are in sub-Saharan Africa, perhaps making them programmatically different from most low prevalence countries in Latin America, the Caribbean, South/Southeast Asia, and the former Soviet Union. Given that low prevalence countries vary so much among themselves, it is unwise (or even impossible) to draw broad conclusions about what should be done to support children across these settings. In addition to HIV prevalence, the evidence suggests that differences in the vulnerability of children are determined by familial, economical, sociocultural, and political contexts. For example, in India, the government provides schooling and general school enrollment is high, data indicate that perceived stigma or need for work to support the family, rather than school costs are key (Loudon et al., 2007). In other countries, with lower enrollment rates and school fees, the expenditures related to school attendance may be key (New ERA Team, 2006; Safman, 2004). Understanding the drivers of HIV in a country's context is important: where HIV prevalence is found mostly among sex workers and injecting drug users, children will face hardships but also stigma related to parental behavior. Information on these factors within the local context should inform the development of strategies to mitigate their

Finally, our definition of quality used criteria applicable to a variety of study methods, yet only half of studies had strong documentation quality yielding consistent, strong findings (most of which were situational). This may likewise be the case for literature from high prevalence countries. Even so, identifying commonalities across the evidence base in low and high prevalence settings may foster thinking and research on how to address similar needs in different contexts. An assessment first of the situational needs of children affected by HIV and AIDS, including their proportion among all vulnerable children, is crucial in the design of programming to support them.

Biases may have influenced the conclusions drawn by the evidence review from low prevalence settings. Published and unpublished literature tends to be purpose-driven and may illuminate differences or focus on interventions with positive results. Apparent increased vulnerability may reflect publication biases. Also, some important unpublished literature may have been excluded.

Conclusion

Despite limitations, available evidence in low prevalence and concentrated epidemic settings prompts seeking and testing solutions in the same direction as principles identified in high prevalence settings. Even if prevalence is lower in these settings, children and families affected by HIV and AIDS suffer additional vulnerabilities across priority challenge areas. However, making recommendations on how to mitigate vulnerabilities in these settings requires stronger evidence.

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Note

1. Low prevalence is defined as countries with HIV prevalence consistently <5%; concentrated epidemics is defined as countries with HIV prevalence consistently >5% in one or more sub-populations but not established in the general population (UNAIDS, 2006).

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