



CLINICAL REPORT

Psychosocial Support for Youth Living With HIV

abstract

FREE

This clinical report provides guidance for the pediatrician in addressing the psychosocial needs of adolescents and young adults living with HIV, which can improve linkage to care and adherence to life-saving antiretroviral (ARV) therapy. Recent national case surveillance data for youth (defined here as adolescents and young adults 13 to 24 years of age) revealed that the burden of HIV/AIDS fell most heavily and disproportionately on African American youth, particularly males having sex with males. To effectively increase linkage to care and sustain adherence to therapy, interventions should address the immediate drivers of ARV compliance and also address factors that provide broader social and structural support for HIV-infected adolescents and young adults. Interventions should address psychosocial development, including lack of future orientation, inadequate educational attainment and limited health literacy, failure to focus on the long-term consequences of near-term risk behaviors, and coping ability. Associated challenges are closely linked to the structural environment. Individual case management is essential to linkage to and retention in care, ARV adherence, and management of associated comorbidities. Integrating these skills into pediatric and adolescent HIV practice in a medical home setting is critical, given the alarming increase in new HIV infections in youth in the United States. *Pediatrics* 2014;133:558–562

BACKGROUND

The US government released a National Strategy for HIV/AIDS in 2010, in which 3 common goals were stated: (1) to reduce the number of individuals who become HIV infected; (2) to increase access to care and improve health outcomes in HIV-infected individuals; and (3) to reduce HIV-related health disparities.¹ These goals reflect significant progress in treatment of HIV infection with effective combination antiretroviral therapy (cART). This approach requires an ever-vigilant approach to long-term antiretroviral (ARV) adherence ($\geq 95\%$) for optimal virologic suppression and to offset the emergence of drug-resistant HIV so that future treatment options remain viable. Unfortunately many HIV-positive youth are not consistently linked into or retained in care. Youth who miss clinic appointments are more likely to develop life-threatening opportunistic infections. Poor adherence to cART is also associated with increased secondary HIV transmission.²

Jaime Martinez, MD, FAAP, Rana Chakraborty, MD, FAAP,
and the COMMITTEE ON PEDIATRIC AIDS

KEY WORDS

HIV, pediatrics, youth, psychosocial support, antiretroviral therapy

ABBREVIATIONS

ARV—antiretroviral
cART—combination antiretroviral therapy
LGBT—lesbian, gay, bisexual, and transgender

This document is copyrighted and is property of the American Academy of Pediatrics and its Board of Directors. All authors have filed conflict of interest statements with the American Academy of Pediatrics. Any conflicts have been resolved through a process approved by the Board of Directors. The American Academy of Pediatrics has neither solicited nor accepted any commercial involvement in the development of the content of this publication.

The guidance in this report does not indicate an exclusive course of treatment or serve as a standard of medical care. Variations, taking into account individual circumstances, may be appropriate.

www.pediatrics.org/cgi/doi/10.1542/peds.2013-4061

doi:10.1542/peds.2013-4061

All clinical reports from the American Academy of Pediatrics automatically expire 5 years after publication unless reaffirmed, revised, or retired at or before that time.

PEDIATRICS (ISSN Numbers: Print, 0031-4005; Online, 1098-4275).

Copyright © 2014 by the American Academy of Pediatrics

Epidemiology

HIV-infected youth consist of 2 distinct populations: those who acquired HIV infection perinatally and those infected horizontally either by transfusion of blood products or by risk behaviors, including sexual activity and intravenous drug use. As of 2010, there were an estimated 10 797 perinatally HIV-infected people in the United States and dependent areas, and 76% of those affected were ≥ 13 years of age at the time of the analysis.³ Recent surveillance data from 2009 and 2010 reveal that youth account for 26% of all new HIV infections in the United States. Nearly 75% and 46% of the 12 200 new HIV infections in youth were attributable to males having sex with males and African American adolescents and young adults, respectively.⁴ Stigma, discrimination,⁵ infrequent condom use, alcohol and drug use, and having sex with older partners⁶ contributed to an even higher risk for acquiring HIV infection, disproportionately affecting minority youth residing in the south and the north-eastern United States. An estimated 60% of individuals were unaware of their underlying HIV infection.⁷

Challenges to ARV Adherence Among HIV-Infected Youth in the United States

Poor adherence to ARV therapy has been documented for both perinatally and horizontally HIV-infected youth. Many children infected with HIV perinatally have survived into their second or third decade of life with cART. However, during adolescence a number of psychological and social factors influence decision-making and create challenges for effective ARV adherence. A retrospective multicenter study of adolescents who acquired HIV perinatally reported that adolescents and young adults had the highest risk for resistance to available ARVs secondary to poor drug adherence.^{8,9} Similar

findings among adolescents and young adults who acquired HIV horizontally are reported, with as few as 24% in 1 study achieving virologic suppression at 3 years after initiation of cART.¹⁰ Such observations reinforce the need to design, implement, and evaluate strategies to increase and sustain adherence to therapy in this group. Interventions must factor the adolescents' stage of development, education level, health literacy and coping ability, and structural environment.¹¹ Factors that have been implicated in poor levels of adherence and ARV efficacy include poverty, inadequate food access,^{12,13} unstable housing,⁸ limited educational attainment, lack of stable employment, substance abuse, denial, stigma, homophobia, and discrimination.¹⁴

HIV Disclosure to Perinatally HIV-Infected Youth

As perinatally HIV-infected children approach adolescence, disclosure of their serostatus becomes essential for personal health maintenance and secondary HIV prevention. The first longitudinal study to examine the impact of disclosure of HIV status on health-related quality of life outcomes documented a median age at disclosure of 11 years. There were no significant changes over time in general health perception, psychological status, physical functioning, social/role functioning, or health care use domains. There was also no significant difference between time trends in quality of life scores before and after disclosure of HIV status, suggesting that diagnostic disclosure to children should not be delayed for fear of a negative impact on quality of life.¹⁵ Disclosure prior to sexual activity is also a public health issue affecting secondary HIV transmission.

Stigma and Disclosure in Horizontally HIV-Infected Youth

Horizontally HIV-infected youth have historically experienced rejection,

violence, and discrimination following disclosure of their HIV status. These experiences reflect prevalent societal stigma toward individuals who have acquired HIV through perceived risk behavior. The detrimental effect of HIV stigma on youth is often reported as more significant than the disease itself⁹ and negatively impacts ARV adherence. In one study, individuals who have HIV who reported high levels of HIV stigma were 3 times more likely to report problems with adherence.⁸ In contrast, when youth reported high levels of satisfaction with health care providers, this ameliorated the negative impact of stigma on adherence to treatment.¹⁶

Children and Youth Who Are in Foster Care or Homeless

Children who have HIV infection are often placed in foster care. Provision of medical services, including hospitalization, can be initially complicated by limited acquisition and communication of medical information. Eliminating barriers to sharing confidential information between medical providers, mental health case managers, and the foster care agency can improve care of the child or adolescent living with HIV.¹⁷ Institutional confidentiality and privacy policies guiding the care of HIV-infected youth should be developed.¹⁸ Samples of confidentiality policies can be found in *Bright Futures*.¹⁹ A complete medical history may be unavailable at the initial visit, and physicians must be prepared to document the circumstances surrounding the unavailability of previous medical records and provide service with limited knowledge of the youth's family, past medical or ARV history, or immunization status.²⁰

Studies indicate that youth aging out of foster care at 18 years of age and those who are lesbian, gay, bisexual, and transgender (LGBT) are especially susceptible to homelessness.²¹ The former, particularly minority youth,

have limited experience in independent living and lack the financial and social supports required to become independent.^{22,23} Many are at increased risk for sexual victimization, school dropout, substance abuse, and mental health comorbidities. Homeless adolescents and young adults frequently engage in prostitution in exchange for money, food, or shelter. The literature estimates that nightly in the United States, homeless youth can number between 1.6 and 2 million, including those living in shelters, on the streets, or in other temporary accommodations. Significantly, LGBT youth account for 20% to 40% of all homeless youth in the United States^{24–26} and are 6 to 12 times more likely to become HIV infected than other youth.²⁷ Homeless youth are 7 times as likely to die from AIDS and 16 times as likely to have HIV infection diagnosed as the general youth population.²⁶ These youth experience high rates of trauma and abuse before and during their experience of homelessness. Violence is reported in many forms, including physical (50%–82%), sexual (26%–39%), and family abuse (50%).²⁸

Acceptance of an HIV Diagnosis and Self-Disclosure to Others

Studies have revealed that youth who have chronic and/or terminal illness experience similar difficulty adjusting to their diagnosis, predominantly with medical management.^{29–32} However, HIV-infected youth have the unique difficulty of also living with stigma, which can interfere with their ability to adjust and cope.^{33,34} Significant stressors include acceptance of their diagnosis and rejection by others following disclosure.³⁵ Many fail to keep their medical appointments and present much later with opportunistic infections.

Schooling

Graduating from school is a major milestone for all youth. Youth living

with HIV infection are most concerned about disclosure to peers causing HIV stigmatization and adversely impacting social functioning. Youth living with HIV infection report changing grades after being given their diagnosis, with some ultimately dropping out of school. Like many youth who have chronic disease, HIV-infected youth in school have the added stress of skipping classes for medical appointments, which can negatively affect their grades.³⁵

THE RESPONSE TO IDENTIFIED PSYCHOSOCIAL NEEDS

1. Youth-Friendly Services

HIV Disclosure, Confidentiality, and Stigma

- (a) Confidentiality and privacy policies should be implemented. Given that homophobia, discrimination, and violence often affect HIV-positive LGBT adolescents and young adults, better outcomes are reported in health care settings where there are confidentiality and privacy policies that are discussed during enrollment and at subsequent clinic visits.^{18,36,37} Standard forms for and policies on confidentiality as well as policies on privacy for youth are available and can be modified as state or local jurisdictions legally permit.³⁸
- (b) HIV stigma should be addressed within a developmentally appropriate unit offering comprehensive medical services like a medical home,¹⁶ with patients engaged in trusting relationships with health care providers and being kept well informed of the status of their illness.^{16,39}

Denial and Coping With the Diagnosis of HIV Infection

- (c) Services should address how youth can cope with their HIV

diagnosis. Infrastructure in the medical home that promotes coping through family, peer groups, and spiritual groups as well as professional involvement can improve adherence to clinic appointments and ARV therapy.¹⁶

Case Management and Multidisciplinary Care in the Medical Home

- (d) The sole provision of medical treatment is not sufficient to engage and retain HIV-infected youth in care. Service models that include consideration of gender, race and ethnicity, developmental stage, mental health, family composition, peer reference groups and relationships, economic resources, sexuality, and sexual behaviors are more likely to improve outcomes.⁴⁰
- (e) Effective medical treatment should be inclusive of flexible scheduling and a multidisciplinary team approach that includes aggressive case management and care coordination.^{41,42}
- (f) Patients should be assigned to a physician-led medical home team that can regularly provide all of the medical services and continuity of care.⁴¹
- (g) Medical care services should facilitate prompt access to mental health services.
- (h) Regular multidisciplinary team meetings should be scheduled to include all providers involved in the patient's care.

2. Structural Program Elements

- (a) Addressing barriers to health care use may assist youth in improving disease self-management. Perceived needs in 1 study of 107 HIV-infected youth included access to mental health services (45%), alcohol and drug treatment (14%), transportation to health care

settings (40%), and housing (47%). Youth who expressed these needs were unable or unwilling to “focus on accessing” HIV comprehensive health care.^{41,43}

- (b) Youth buddies are peer advocates who conduct peer-to-peer counseling. When youth buddies are used as part of the comprehensive medical services team, they can be effective in engaging and retaining youth in care.⁴¹

3. Social Media

Health Insurance Portability and Accountability Act-compliant secure messaging through the Internet, mobile phones, and social media can be used for improving appointment and medication adherence. Almost all adolescents and young adults have used the Internet

and mobile phones in their daily lives.⁴⁴ Ninety-five percent of youth report using the Internet and are avid users of social media, with 90% of 13- to 17-year-olds reporting its use, 80% reporting a current profile on a social network site, and 22% having a Twitter account.^{45–50}

4. Advocacy

Pediatricians should advocate for resources that are necessary to provide optimal care for HIV-infected adolescents and young adults to include social support, rehabilitation, education, and access to basic necessities, including stable housing, without which the best medical care may prove ineffective. Pediatricians can advocate at the community and legislative/public policy levels (<http://www.aap.org/en-us/advocacy-and-policy/Pages/Advocacy-and-Policy.aspx>).

LEAD AUTHORS

Jaime Martinez, MD, FAAP
Rana Chakraborty, MD, FAAP

COMMITTEE ON PEDIATRIC AIDS, 2012–2013

Rana Chakraborty, MD, FAAP, Chairperson
Grace M. Aldrovandi, MD, FAAP
Ellen Gould Chadwick, MD, FAAP
Ellen Rae Cooper, MD, FAAP
Athena Kourtis, MD, FAAP
Jaime Martinez, MD, FAAP
Elizabeth Montgomery Collins, MD, FAAP

LIAISONS

Kenneth L. Dominguez, MD, MPH – *Centers for Disease Control and Prevention*
Lynne M. Mofenson, MD, FAAP – *National Institute of Child Health and Human Development*

CONSULTANT

Gordon E. Schutze, MD, FAAP

STAFF

Anjie Emanuel, MPH

REFERENCES

1. The White House Office of National AIDS Policy. *National HIV/AIDS Strategy for the United States*. Washington, DC: The White House Office of National AIDS Policy; 2010. Available at: <http://aids.gov/federal-resources/national-hiv-aids-strategy/nhas.pdf>. Accessed September 10, 2013
2. Cohen MS, Chen YQ, McCauley M, et al. Prevention of HIV-1 infection with early antiretroviral therapy. *N Engl J Med*. 2011; 365(6):493–505
3. Centers for Disease Control and Prevention. Diagnoses of HIV infection in the United States and dependent areas, 2011. HIV Surveillance Report. 2011;23. Available at: http://www.cdc.gov/hiv/library/reports/surveillance/2011/surveillance_Report_vol_23.html. Accessed September 10, 2013
4. Centers for Disease Control and Prevention. Vital signs: HIV infection, testing, and risk behaviors among youths—United States. *MMWR Morb Mortal Wkly Rep*. 2012;61(47):971–976
5. Wong CF, Weiss G, Ayala G, Kipke MD. Harassment, discrimination, violence, and illicit drug use among young men who have sex with men. *AIDS Educ Prev*. 2010;22(4):286–298
6. Hurt CB, Matthews DD, Calabria MS, et al. Sex with older partners is associated with primary HIV infection among men who have sex with men in North Carolina. *J Acquir Immune Defic Syndr*. 2010;54(2):185–190
7. Centers for Disease Control and Prevention. Monitoring selected national HIV prevention and care objectives by using HIV surveillance data—United States and six U.S. dependent areas—2010. HIV Surveillance Supplemental Report. 2012;17(3 Pt A). Available at: http://www.cdc.gov/hiv/library/reports/surveillance/2010/surveillance_Report_vol_18_no_2.html. Accessed September 10, 2013
8. Martinez J, Bell D, Camacho R, et al. Adherence to antiviral drug regimens in HIV-infected adolescent patients engaged in care in a comprehensive adolescent and young adult clinic. *J Natl Med Assoc*. 2000; 92(2):55–61
9. Hosek SG, Harper GW, Domanico R. Predictors of medication adherence among HIV-infected youth. *Psychol Health Med*. 2005;10(2):166–179
10. Flynn PM, Rudy BJ, Lindsey JC, et al. Long-term observation of adolescents initiating HAART therapy: three-year follow-up. *AIDS Res Hum Retroviruses*. 2007;23(10):1208–1214
11. Garcia C. Conceptualization and measurement of coping during adolescence: a review of the literature. *J Nurs Scholarsh*. 2010;42(2):166–185
12. Chandrasekhar A, Gupta A. Nutrition and disease progression pre-highly active antiretroviral therapy (HAART) and post-HAART: can good nutrition delay time to HAART and affect response to HAART? *Am J Clin Nutr*. 2011;94(6):1703S–1715S
13. Raiten DJ. Nutrition and pharmacology: general principles and implications for HIV. *Am J Clin Nutr*. 2011;94(6):1697S–1702S
14. Koenig LJ, Bachanas PJ. Adherence to medications for HIV: teens say, “Too many, too big, too often. In: Lyon ME, D’Angelo LJ, eds. *Teenagers, HIV, and AIDS*. Westport, CT: Praeger; 2006:45–66
15. Butler AM, Williams PL, Howland LC, Storm D, Hutton N, Seage GR III. Pediatric AIDS Clinical Trials Group 219C Study Team. Impact of disclosure of HIV infection on health-related quality of life among children and adolescents with HIV infection. *Pediatrics*. 2009;123(3):935–943

16. Martinez J, Harper G, Carleton RA, et al; Adolescent Medicine Trials Network. The impact of stigma on medication adherence among HIV-positive adolescent and young adult females and the moderating effects of coping and satisfaction with health care. *AIDS Patient Care STDS*. 2012;26(2):108–115
17. American Academy of Pediatrics, Committee on Pediatric AIDS. Identification and care of HIV-exposed and HIV-infected infants, children, and adolescents in foster care. *Pediatrics*. 2000;106(1 Pt 1):149–153. Reaffirmed June 2011
18. American Academy of Pediatrics, Committee on Adolescence. Achieving quality health services for adolescents. *Pediatrics*. 2008;121(6):1263–1270
19. American Academy of Pediatrics, Bright Futures Steering Committee. Bright Futures Adolescent Supplemental Questionnaire 15 to 17 Year Visits. Available at: <http://brightfutures.aap.org/pdfs/Other%203/D.Adol.SQ.Patient.15-17yr.pdf>. Accessed September 10, 2013
20. [No authors listed.]. Special considerations for the health supervision of children and youth in foster care. *Paediatr Child Health (Oxford)*. 2008;13(2):129–133
21. Edidin JP, Ganim Z, Hunter SJ, Karnik NS. The mental and physical health of homeless youth: a literature review. *Child Psychiatry Hum Dev*. 2012;43(3):354–375
22. Hyde J. From home to the street: understanding young people's transitions into homelessness. *J Adolesc*. 2005;28(2):171–183
23. Fowler PJ, Toro PA, Miles BW. Pathways to and from homelessness and associated psychosocial outcomes among adolescents leaving the foster care system. *Am J Public Health*. 2009;99(8):1453–1458
24. National Alliance to End Homelessness. *Youth Homelessness Series, Brief No. 1: Fundamental Issues to Prevent and End Youth Homelessness*. Washington, DC: National Alliance to End Homelessness; 2006
25. Rew L, Taylor-Seehafer M, Thomas NY, Yockey RD. Correlates of resilience in homeless adolescents. *J Nurs Scholar*. 2001;33(1):33–40
26. Ray N. *Lesbian, Gay, Bisexual and Transgender Youth: An Epidemic of Homelessness*. New York, NY: National Gay and Lesbian Task Force Policy Institute and the National Coalition for the Homeless; 2006
27. Rotheram-Borus MJ, Song J, Gwadz M, Lee M, Van Rossem R, Koopman C. Reductions in HIV risk among runaway youth. *Prev Sci*. 2003;4(3):173–187
28. Ferguson KM. Exploring family environment characteristics and multiple abuse experiences among homeless youth. *J Interpers Violence*. 2009;24(11):1875–1891
29. Gavaghan MP, Roach JE. Ego identity development of adolescents with cancer. *J Pediatr Psychol*. 1987;12(2):203–213
30. Lavigne J, Faiers-Routman J. Psychological adjustment to pediatric physical disorders: a meta-analytic review. *J Pediatr Psychol*. 1992;17(2):133–157
31. Sayer AG, Hauser ST, Jacobson AM, Willett JB, Cole CF. Developmental influences on adolescent health. In: Wallander JL, Siegel LJ, eds. *Adolescent Health Problems*. New York, NY: Guilford Press; 1995:22–51
32. Wallander JL, Thompson RJ. Psychosocial adjustment of children with chronic physical conditions. In: Roberts MD, ed. *Handbook of Pediatric Psychology*, 2nd ed. New York, NY: Guilford Press; 1995:124–142
33. Brown LK, Lourie KJ, Pao M. Children and adolescents living with HIV and AIDS: a review. *J Child Psychol Psychiatry*. 2000;41(1):81–96
34. Rao D, Ketwaletswe TC, Hosek SG, Martinez J, Rodriguez F. Stigma and social barriers to medication adherence with urban youth living with HIV. *AIDS Care*. 2007;19(1):28–33
35. Hosek SG, Harper GW, Lemos D, Martinez J; Adolescent Medicine Trials Network for HIV/AIDS Interventions. An ecological model of stressors experienced by youth newly diagnosed with HIV. *J HIV AIDS Prev Child Youth*. 2008;9(2):192–218
36. AIDS Alliance for Children. *Youth and Families. Finding HIV-Positive Youth And Bringing Them Into Care*. Washington, DC: AIDS Alliance for Children, Youth and Families; 2005
37. Stanford PD, Monte DA, Briggs FM, et al. Recruitment and retention of adolescent participants in HIV research: findings from the REACH (Reaching for Excellence in Adolescent Care and Health) Project. *J Adolesc Health*. 2003;32(3):192–203
38. American Academy of Pediatrics, Bright Futures Steering Committee. Introduction to the Bright Futures Visits. Available at: http://brightfutures.aap.org/pdfs/Guidelines_PDF/12-Introduction_to_the_Bright_Futures_Visits.pdf. Accessed September 10, 2013
39. Urowitz S, Deber R. How consumerist do people want to be? Preferred role in decision-making of individuals with HIV/AIDS. *Health Policy*. 2008;3(3):e168–e182
40. Johnson RL, Martinez J, Botwinick G, et al. Introduction: what youth need: adapting HIV care models to meet the lifestyles and special needs of adolescents and young adults. *J Adolesc Health*. 2003;33(suppl):4–9
41. Johnson RL, Botwinick G, Sell RL, et al. The utilization of treatment and case management services by HIV infected youth. *J Adolesc Health*. 2003;33(suppl):31–38
42. Martinez J, Hosek SG, Carleton RA. Screening and assessing violence and mental health disorders in a cohort of inner city HIV positive youth between 1998–2006. *AIDS Patient Care STDS*. 2009;23(6):469–475
43. Martinez J, Bell D, Dodds S, et al. Transitioning youth into care (linking identified HIV infected youth at outreach sites in the community to hospital based clinics and or community based health centers). *J Adolesc Health*. 2003;33(suppl):23–30
44. Allison A, Bauermeister JA, Bull S, et al. The intersection of youth, technology, and new media with sexual health: moving the research agenda forward. *J Adolesc Health*. 2012;51(3):207–212
45. Lenhart A, Madden M, Smith A, et al. *Teens, Kindness and Cruelty on Social Network Sites: How American Teens Navigate the New World of "Digital Citizenship."* Washington, DC: Pew Research Center's Internet and American Life Project; 2011
46. Media CS. Social Media, Social Life: How Teens View Their Digital Lives. A Common Sense Media Research Study. June 26, 2012. Available at: <http://www.commonsensemedia.org/research/social-media-social-life>. Accessed September 10, 2013
47. Lenhart A, Madden M, McGill AR, Smith A. *Teens and Social Media: The Use of Social Media Gains a Greater Foothold in Teen Life as They Embrace the Conversational Nature of Interactive Online Media*. Washington, DC: Pew Internet and American Life Project; 2007
48. Malesky LA Jr. Predatory online behavior: modus operandi of convicted sex offenders in identifying potential victims and contacting minors over the internet. *J Child Sex Abuse*. 2007;16(2):23–32
49. Smith-Rohrberg D, Mezger J, Walton M, et al. Impact of enhanced services on virologic outcomes in a directly administered anti-retroviral therapy trial for HIV-infected drug users. *J Acquir Immune Defic Syndr*. 2006;43(suppl):S48–S53
50. Purnell M, Santos K, Balthazar C. Using technology to retain young MSM in an open label pre-exposure prophylaxis study [abstr WEPE271]. Paper presented at: 19th International AIDS Conference; July 22–27, 2012; Washington, DC

Psychosocial Support for Youth Living With HIV

Jaime Martinez, Rana Chakraborty and the COMMITTEE ON PEDIATRIC AIDS

Pediatrics 2014;133;558

DOI: 10.1542/peds.2013-4061 originally published online February 24, 2014;

Updated Information & Services

including high resolution figures, can be found at:
<http://pediatrics.aappublications.org/content/133/3/558>

References

This article cites 34 articles, 4 of which you can access for free at:
<http://pediatrics.aappublications.org/content/133/3/558#BIBL>

Subspecialty Collections

This article, along with others on similar topics, appears in the following collection(s):
Current Policy
http://www.aappublications.org/cgi/collection/current_policy
Committee on Pediatric AIDS
http://www.aappublications.org/cgi/collection/committee_on_pediatric_aids
Developmental/Behavioral Pediatrics
http://www.aappublications.org/cgi/collection/development:behavioral_issues_sub
Psychosocial Issues
http://www.aappublications.org/cgi/collection/psychosocial_issues_sub
Infectious Disease
http://www.aappublications.org/cgi/collection/infectious_diseases_sub
HIV/AIDS
http://www.aappublications.org/cgi/collection/hiv:aids_sub

Permissions & Licensing

Information about reproducing this article in parts (figures, tables) or in its entirety can be found online at:
<http://www.aappublications.org/site/misc/Permissions.xhtml>

Reprints

Information about ordering reprints can be found online:
<http://www.aappublications.org/site/misc/reprints.xhtml>

American Academy of Pediatrics

DEDICATED TO THE HEALTH OF ALL CHILDREN™



PEDIATRICS®

OFFICIAL JOURNAL OF THE AMERICAN ACADEMY OF PEDIATRICS

Psychosocial Support for Youth Living With HIV

Jaime Martinez, Rana Chakraborty and the COMMITTEE ON PEDIATRIC AIDS

Pediatrics 2014;133;558

DOI: 10.1542/peds.2013-4061 originally published online February 24, 2014;

The online version of this article, along with updated information and services, is located on the World Wide Web at:

<http://pediatrics.aappublications.org/content/133/3/558>

Pediatrics is the official journal of the American Academy of Pediatrics. A monthly publication, it has been published continuously since 1948. Pediatrics is owned, published, and trademarked by the American Academy of Pediatrics, 141 Northwest Point Boulevard, Elk Grove Village, Illinois, 60007. Copyright © 2014 by the American Academy of Pediatrics. All rights reserved. Print ISSN: 1073-0397.

American Academy of Pediatrics

DEDICATED TO THE HEALTH OF ALL CHILDREN™

