

REVIEW

Open Access

The epidemic of HIV/AIDS in developing countries; the current scenario in Pakistan

Muhammad Z Yousaf^{1*}, Sadia Zia¹, Masroor E Balbar¹ and Usman A Ashfaq²

Abstract

HIV (Human Immunodeficiency virus) causes (acquired immunodeficiency syndrome) AIDS, in which the immune system of body totally fails to develop any defense against the foreign invaders. Infection with HIV occurs by transfer of blood, semen, and breast milk. HIV/AIDS is a global problem and it results nearly 25 million deaths worldwide. Developing countries like Pakistan have issues regarding Public Health. Currently, epidemic of HIV/AIDS is established in Pakistan and there is a threat of an expanded HIV/AIDS outbreak in the country. The major reason is that population is engaging in high-risk practices, low awareness about HIV/AIDS, and treacherous blood transfusion practices. A supplementary threat to Pakistan is India because both sharing a border and India is facing a rapidly growing HIV/AIDS epidemic. Local NGOs, National and International organizations are warning that in near future Pakistan may experience bad situation regarding HIV/AIDS. In the present article we focused current situation of surveillance of HIV/AIDS, its virology, genotype, diagnostics, high-risk groups, reasons of vulnerability in Pakistani population, and the role of different national and international organizations in this situation.

Background

HIV belongs to *Lentivirus*, which are also known as "slow virus". The name indicates their mode of action as they enter into body and remain in it for longer period of time. They have unique property of being inserting the information into the DNA of host cell and also have the ability to replicate in non-dividing cells. Due to these characteristics they are considered to be the most efficient gene delivery vector [1]. HIV infects defense/immune system cells such as CD4+ T cells, macrophages and dendritic cells [2]. The CD4+ cells play a crucial role in the maintenance of immune system. After infection, HIV uses CD4+ cells as host to make copies and infect other cells. This leads to the reduction of CD4+ cells in body and immune system totally collapse [3]. The development from HIV to AIDS is checked by the rapid decline of CD4+ cells [3].

Types of HIV

Two types of HIV have been characterized; HIV-1 and HIV-2. HIV-1 is the most virulent and pathogenic strain.

Worldwide, the predominant virus is HIV-1, and generally when people refer to HIV without specifying the type of virus they will be referring to HIV-1. The relatively uncommon HIV-2 type is concentrated in West Africa and is rarely found elsewhere. The reason behind is that HIV-2 weakens the immune system slowly than HIV-1 [4]. The HIV-1 is further divided into 4-groups: a) major group M, b) Outlier group O, c) Group N, d) Group P. These groups have been identified in their envelope region. Group M is further divided into A, B, C, D, F, G, H, J and K. In Asian countries B and C are the predominant clades of HIV-1. But in Pakistan HIV-1 is dominant in Pakistan as compared to other clades, this was found more in IDUs in Karachi [5]. HIV-2 has also 8 clades from A to H, out of these clades only A and B are epidemic [6].

HIV Virology and Life Cycle

The identification of HIV led to the concentrated activity in the field of molecular virology. HIV is different in structure from other retroviruses. This is roughly spherical with a diameter of about 120 nm [7,8]. It contains three (3) structural and six (6) genes which encode the at least fifteen (15) viral proteins and control the ability of HIV to infect the cell [9]. HIV is composed of two copies of

* Correspondence: saliyousaf@vsnl.net

¹Institute of Biochemistry and Biotechnology University of Veterinary and Animal Sciences, Lahore
Full list of author information is available at the end of the article

Aids In Developing Countries

Evaristus Chiedu Obi



Aids In Developing Countries:

AIDS in Developing Countries Noël Merino, 2010 Presents essays offering various viewpoints on the crisis of AIDS in developing countries providing critical information to form an educated opinion *The Political Economy of HIV/AIDS in Developing Countries* Benjamin Coriat, 2008-01-01 The issue of universal and free access to treatment is now a fundamental goal of the international community Based on original data and field studies from Brazil Thailand India and Sub Saharan Africa under the aegis of ANRS the French national agency for research on Aids and viral hepatitis this timely and significant book both assesses the progress made in achieving this objective and presents a rigorous diagnosis of the obstacles that remain Placing particular emphasis on the constraints imposed by TRIPS as well as the poor state of most public health systems in Southern countries the contributing authors provide a comprehensive analysis of the huge barriers that have yet to be overcome in order to attain free access to care and offer innovative suggestions of how they might be confronted In doing this the book renews our understanding of the political economy of HIV AIDS in these vast regions where the disease continues to spread with devastating social and economic consequences This volume will be a valuable addition to the current literature on HIV AIDS in developing countries and will find widespread appeal amongst students and academics studying economics sociology and public health It will also be of interest to international organizations and professional associations involved in the fight against pandemics **Combating HIV-AIDS in Developing Countries**, 1992-06 Reports on the U S Agency for International Development AID and its lack of an agencywide strategy for marshaling resources to combat the AIDS epidemic in developing countries through the foreign assistance it makes available [AIDS in Developing Countries](#) Maureen A. Lewis, 1989 **Foreign Assistance** United States. General Accounting Office, 1992 [Confronting AIDS in the Developing Countries](#) United States. Agency for International Development, 1992 [Disease Control Priorities in Developing Countries](#) Dean T. Jamison, Joel G. Breman, Anthony R. Measham, George Alleyne, Mariam Claeson, David B. Evans, Prabhat Jha, Anne Mills, Philip Musgrove, 2006-04-02 Based on careful analysis of burden of disease and the costs of interventions this second edition of Disease Control Priorities in Developing Countries 2nd edition highlights achievable priorities measures progress toward providing efficient equitable care promotes cost effective interventions to targeted populations and encourages integrated efforts to optimize health Nearly 500 experts scientists epidemiologists health economists academicians and public health practitioners from around the world contributed to the data sources and methodologies and identified challenges and priorities resulting in this integrated comprehensive reference volume on the state of health in developing countries [Confronting AIDS in the Developing World](#) United States. Agency for International Development, 1992 **Confronting AIDS** World Bank, 1999 This revised and updated edition of the pathbreaking report on the global AIDS epidemic outlines the strategic role that government must play in slowing the spread of HIV and mitigating the impact of AIDS Drawing on the knowledge accumulated in the 17 years since the virus that causes AIDS was first

identified the report highlights policies that are most likely to be effective in managing the epidemic These include early actions to minimize the spread of the virus aiming preventive interventions at high risk groups and evaluating measures that would assist households affected by AIDS according to the same standards applied to other health issues This revised edition will a valuable resource for public health policymakers researchers and anyone with an interest in this devastating global health crisis

Post-Trial Access to Drugs in Developing Nations Evaristus Chiedu Obi, 2017-07-26 This book begins the discourse on post trial access to drugs in developing countries Underlying ethical issues in global health inequalities and global health research serve as the context of the debate Due to rampant allegations of violations of rights of research participants especially in developing countries it discusses the regulatory infrastructure and ethical oversight of international clinical research thus emphasizing the priority of safeguarding the rights of research participants and host populations as desiderata in conducting clinical trials in developing countries This is the first book that analyzes the major obstacles of affordable access to drugs in developing countries patent and non patent factors and how they can be overcome through a middle ground approach and a new paradigm to establish global health justice which includes national and global health responsibilities The book also deals extensively with all complex aspects of the discourse on affordable access to drugs in developing countries including intellectual property law international regulations political and cultural systems international trade agreements Furthermore it contains a robust ethical debate and in depth analysis The book crafts a paradigm of global health justice involving a sliding scale of national and global responsibilities for the realization of the right to health in general and access to drugs in particular

Thank you categorically much for downloading **Aids In Developing Countries**. Maybe you have knowledge that, people have seen numerous times for their favorite books gone this Aids In Developing Countries, but end taking place in harmful downloads.

Rather than enjoying a fine book afterward a mug of coffee in the afternoon, on the other hand they juggled later some harmful virus inside their computer. **Aids In Developing Countries** is comprehensible in our digital library an online entrance to it is set as public suitably you can download it instantly. Our digital library saves in complex countries, allowing you to get the most less latency time to download any of our books in imitation of this one. Merely said, the Aids In Developing Countries is universally compatible later than any devices to read.

<https://composer.colourpop.com/book/Resources/default.aspx/for%20beginners%20automation%20remote%20work.pdf>

Table of Contents Aids In Developing Countries

1. Understanding the eBook Aids In Developing Countries
 - The Rise of Digital Reading Aids In Developing Countries
 - Advantages of eBooks Over Traditional Books
2. Identifying Aids In Developing Countries
 - Exploring Different Genres
 - Considering Fiction vs. Non-Fiction
 - Determining Your Reading Goals
3. Choosing the Right eBook Platform
 - Popular eBook Platforms
 - Features to Look for in an Aids In Developing Countries
 - User-Friendly Interface
4. Exploring eBook Recommendations from Aids In Developing Countries
 - Personalized Recommendations
 - Aids In Developing Countries User Reviews and Ratings

- Aids In Developing Countries and Bestseller Lists
- 5. Accessing Aids In Developing Countries Free and Paid eBooks
 - Aids In Developing Countries Public Domain eBooks
 - Aids In Developing Countries eBook Subscription Services
 - Aids In Developing Countries Budget-Friendly Options
- 6. Navigating Aids In Developing Countries eBook Formats
 - ePub, PDF, MOBI, and More
 - Aids In Developing Countries Compatibility with Devices
 - Aids In Developing Countries Enhanced eBook Features
- 7. Enhancing Your Reading Experience
 - Adjustable Fonts and Text Sizes of Aids In Developing Countries
 - Highlighting and Note-Taking Aids In Developing Countries
 - Interactive Elements Aids In Developing Countries
- 8. Staying Engaged with Aids In Developing Countries
 - Joining Online Reading Communities
 - Participating in Virtual Book Clubs
 - Following Authors and Publishers Aids In Developing Countries
- 9. Balancing eBooks and Physical Books Aids In Developing Countries
 - Benefits of a Digital Library
 - Creating a Diverse Reading Collection Aids In Developing Countries
- 10. Overcoming Reading Challenges
 - Dealing with Digital Eye Strain
 - Minimizing Distractions
 - Managing Screen Time
- 11. Cultivating a Reading Routine Aids In Developing Countries
 - Setting Reading Goals Aids In Developing Countries
 - Carving Out Dedicated Reading Time
- 12. Sourcing Reliable Information of Aids In Developing Countries
 - Fact-Checking eBook Content of Aids In Developing Countries
 - Distinguishing Credible Sources

13. Promoting Lifelong Learning
 - Utilizing eBooks for Skill Development
 - Exploring Educational eBooks
14. Embracing eBook Trends
 - Integration of Multimedia Elements
 - Interactive and Gamified eBooks

Aids In Developing Countries Introduction

In today's digital age, the availability of Aids In Developing Countries books and manuals for download has revolutionized the way we access information. Gone are the days of physically flipping through pages and carrying heavy textbooks or manuals. With just a few clicks, we can now access a wealth of knowledge from the comfort of our own homes or on the go. This article will explore the advantages of Aids In Developing Countries books and manuals for download, along with some popular platforms that offer these resources. One of the significant advantages of Aids In Developing Countries books and manuals for download is the cost-saving aspect. Traditional books and manuals can be costly, especially if you need to purchase several of them for educational or professional purposes. By accessing Aids In Developing Countries versions, you eliminate the need to spend money on physical copies. This not only saves you money but also reduces the environmental impact associated with book production and transportation. Furthermore, Aids In Developing Countries books and manuals for download are incredibly convenient. With just a computer or smartphone and an internet connection, you can access a vast library of resources on any subject imaginable. Whether you're a student looking for textbooks, a professional seeking industry-specific manuals, or someone interested in self-improvement, these digital resources provide an efficient and accessible means of acquiring knowledge. Moreover, PDF books and manuals offer a range of benefits compared to other digital formats. PDF files are designed to retain their formatting regardless of the device used to open them. This ensures that the content appears exactly as intended by the author, with no loss of formatting or missing graphics. Additionally, PDF files can be easily annotated, bookmarked, and searched for specific terms, making them highly practical for studying or referencing. When it comes to accessing Aids In Developing Countries books and manuals, several platforms offer an extensive collection of resources. One such platform is Project Gutenberg, a nonprofit organization that provides over 60,000 free eBooks. These books are primarily in the public domain, meaning they can be freely distributed and downloaded. Project Gutenberg offers a wide range of classic literature, making it an excellent resource for literature enthusiasts. Another popular platform for Aids In Developing Countries books and manuals is Open Library. Open Library is an initiative of the Internet Archive, a non-profit organization dedicated to digitizing cultural artifacts and making them accessible to the public.

Open Library hosts millions of books, including both public domain works and contemporary titles. It also allows users to borrow digital copies of certain books for a limited period, similar to a library lending system. Additionally, many universities and educational institutions have their own digital libraries that provide free access to PDF books and manuals. These libraries often offer academic texts, research papers, and technical manuals, making them invaluable resources for students and researchers. Some notable examples include MIT OpenCourseWare, which offers free access to course materials from the Massachusetts Institute of Technology, and the Digital Public Library of America, which provides a vast collection of digitized books and historical documents. In conclusion, Aids In Developing Countries books and manuals for download have transformed the way we access information. They provide a cost-effective and convenient means of acquiring knowledge, offering the ability to access a vast library of resources at our fingertips. With platforms like Project Gutenberg, Open Library, and various digital libraries offered by educational institutions, we have access to an ever-expanding collection of books and manuals. Whether for educational, professional, or personal purposes, these digital resources serve as valuable tools for continuous learning and self-improvement. So why not take advantage of the vast world of Aids In Developing Countries books and manuals for download and embark on your journey of knowledge?

FAQs About Aids In Developing Countries Books

How do I know which eBook platform is the best for me? Finding the best eBook platform depends on your reading preferences and device compatibility. Research different platforms, read user reviews, and explore their features before making a choice. Are free eBooks of good quality? Yes, many reputable platforms offer high-quality free eBooks, including classics and public domain works. However, make sure to verify the source to ensure the eBook credibility. Can I read eBooks without an eReader? Absolutely! Most eBook platforms offer web-based readers or mobile apps that allow you to read eBooks on your computer, tablet, or smartphone. How do I avoid digital eye strain while reading eBooks? To prevent digital eye strain, take regular breaks, adjust the font size and background color, and ensure proper lighting while reading eBooks. What the advantage of interactive eBooks? Interactive eBooks incorporate multimedia elements, quizzes, and activities, enhancing the reader engagement and providing a more immersive learning experience. Aids In Developing Countries is one of the best book in our library for free trial. We provide copy of Aids In Developing Countries in digital format, so the resources that you find are reliable. There are also many Ebooks of related with Aids In Developing Countries. Where to download Aids In Developing Countries online for free? Are you looking for Aids In Developing Countries PDF? This is definitely going to save you time and cash in something you should think about.

Find Aids In Developing Countries :

[for beginners automation remote work](#)

[automation remote work guide](#)

[ai productivity tools ebook](#)

[2025 edition freelance platforms](#)

[digital nomad lifestyle pro](#)

[work from home setup ideas](#)

[tips remote jobs](#)

[guide freelance platforms](#)

freelance platforms tips

ai productivity tools latest

digital productivity toolkit

[guide remote jobs](#)

[latest ai productivity tools](#)

[future of work 2025 edition](#)

time blocking planner tutorial

Aids In Developing Countries :

Beginning & Intermediate Algebra (5th Edition) NOTE: This is a standalone book. Elayn Martin-Gay's developmental math textbooks and video resources are motivated by her firm belief that every student can ... Beginning and Intermediate Algebra 5th Edition Beginning and Intermediate Algebra 5th Edition. 4.1 4.1 out of 5 stars 6 Reviews ... Elayn Martin-Gay. 4.3 out of 5 stars 561. Hardcover. 64 offers from \$14.07. Beginning & Intermediate Algebra (5th Edition) Beginning & Intermediate Algebra (5th Edition) by Martin-Gay, Elayn - ISBN 10: 0321785126 - ISBN 13: 9780321785121 - Pearson - 2012 - Hardcover. Martin-Gay, Beginning & Intermediate Algebra Beginning & Intermediate Algebra, 5th Edition. Elayn Martin-Gay, University ... Elayn Martin-Gay's developmental math textbooks and video resources are ... Beginning and Intermediate Algebra | Buy | 9780321785121 Elayn Martin-Gay. Every textbook comes with a 21-day "Any Reason" guarantee. Published by Pearson. Beginning and Intermediate Algebra 5th edition solutions ... beginning and intermediate algebra 5th edition Algebra. Publication Name. Beginning & Intermediate Algebra. Author. Elayn Martin-Gay. Level. Intermediate. Category. Books & Magazines > Textbooks, Education ... Beginning and Intermediate Algebra | Rent | 9780321785862 Rent □ Beginning and

Intermediate Algebra 5th edition (978-0321785862) today, or search our site for other □textbooks by Elayn Martin-Gay. beginning and intermediate algebra 5th edition 325114606480. Publication Name. Beginning & Intermediate Algebra. Subject Area. Algebra. Type. Workbook. Author. Elayn Martin-Gay. Level. Intermediate. Category. Beginning and Intermediate Algebra Fifth Edition by Elayn ... Beginning and Intermediate Algebra Fifth Edition (5th Edition). by Elayn Martin-Gay. Hardcover, 1032 Pages, Published 2012. ISBN-10: 0-321-78512-6 / 0321785126 Beginning & Intermediate Algebra, 5th edition (STRN0011) SKU: STRN0011 Author: Elayn Martin-Gay Publication Date: 2013 by Pearson Education, Inc. Product Type: Book Product ISBN: 9780321785121 Alkinoos, Didaskalikos: Lehrbuch der Grundsätze Platons. ... Alkinoos, Didaskalikos: Lehrbuch der Grundsätze Platons. Einleitung, Text, Übersetzung und Anmerkungen (Sammlung wissenschaftlicher Commentare (SWC)). Alkinoos, Didaskalikos. Lehrbuch der Grundsätze Platons ... Summerell, Thomas Zimmer, Alkinoos, Didaskalikos : Lehrbuch der Grundsätze Platons : Einleitung, Text, Übersetzung und Anmerkungen. Sammlung ... Alkinoos, Didaskalikos Alkinoos, Didaskalikos. Lehrbuch der Grundsätze Platons. Einleitung, Text, Übersetzung und Anmerkungen. Albinus <Platonicus>. Albinus. Diesen Autor / diese ... Alkinoos, Didaskalikos: Lehrbuch der Grundsätze Platons. ... Alkinoos, Didaskalikos: Lehrbuch der Grundsätze Platons. Einleitung, Text, Übersetzung und Anmerkungen (Sammlung wissenschaftlicher Commentare (SWC)). ALKINOOS' LEHRBUCH DER GRUNDSÄTZE PLATONS ALKINOOS' LEHRBUCH DER GRUNDSÄTZE PLATONS was published in Alkinoos, Didaskalikos on page 1 ... ANMERKUNGEN · Subjects · Architecture and Design · Arts · Asian ... Alkinoos, Didaskalikos: Lehrbuch der Grundsätze Platons. ... Der vorliegenden Edition und Erstübersetzung ins Deutsche werden eine Einleitung sowie eine Bibliographie vorangestellt. Die Anmerkungen zum Text erläutern ... Alkinoos, Didaskalikos: Lehrbuch Der Grundsätze Platons. ... Alkinoos, Didaskalikos: Lehrbuch Der Grundsätze Platons. Einleitung, Text, Uebersetzung Und Anmerkungen ; Product Details. Price. £115.00. Publisher. de Gruyter. Albinus & Orrin F. Summerell, Alkinoos, Didaskalikos: Lehrbuch ... Introduction, Text, Translation and Commentary: Einleitung, Text, Übersetzung Und Kommentar. Walter de Gruyter. Grundsätze der Philosophie der Zukunft Kritische ... Alkinoos, Didaskalikos: Lehrbuch der Grundsätze Platons Alkinoos, Didaskalikos: Lehrbuch der Grundsätze Platons: Einleitung, Text, Uebersetzung Und Anmerkungen. Author / Uploaded; Orrin F. Summerell. Table of ... alkinoos didaskalikos lehrbuch der grundsätze platons ... Jul 15, 2023 — Right here, we have countless books alkinoos didaskalikos lehrbuch der grundsätze platons einleitung text uebersetzung und anmerkungen and ... Systems Understanding Aid by Alvin A. Arens... ... - Amazon Systems Understanding Aid by Alvin A. Arens and D. Dewey Ward. (Armond Dalton Publishers INC,2012) [Paperback] 8th Edition [Alvin Ward] on Amazon.com. Systems Understanding Aid by Alvin A. Arens and D.... by AA Systems Understanding Aid by Alvin A. Arens and D. Dewey Ward 8th (eighth) Edition [Paperback(2012)] [AA] on Amazon.com. *FREE* shipping on qualifying ... Systems Understanding Aid A comprehensive manual accounting practice set that includes flowcharts, documents and internal controls. Uses a hands-on approach to help students understand ... Systems

Understanding Aid | Rent - Chegg Systems Understanding Aid 8th edition ; Full Title: Systems Understanding Aid ; Edition: 8th edition ; ISBN-13: 978-0912503387 ; Format: Paperback/softback. solutions systems understanding aid 8th edition (PDF) May 16, 2023 — This is just one of the solutions for you to be successful. As understood, completion does not recommend that you have fabulous points ... Any tips for working through Systems Understanding Aid ... It took me a while to start, but the biggest piece of advice I can give you is learn what the flow charts mean and become familiar with them. Full completion of Systems Understanding Aid 8th edition ... Sep 19, 2016 — After the Systems Understanding Aid (SUA) is completed and graded, the SUA is yours to keep and use for future reference. You should mark up ... Textbook Bundles Systems Understanding Aid 10th Edition (2020) Arens and Ward (More info) ... 8th Edition (2016) Arens, Ward and Latham (More info) ». ISBN# 978-0-912503-60-8. Systems Understanding Aid 8th Edition -Ledgers Sep 15, 2016 — View Homework Help - Systems Understanding Aid 8th Edition -Ledgers from ACC 180 at Asheville-Buncombe Technical Community College.