UNAIDS REPORT | 2011

Chronic care of HIV and noncommunicable diseases

HOW TO LEVERAGE THE HIV EXPERIENCE

UNAIDS
Joint United Nations Programme on HIV/AIDS
UNHCR UNICEF WFP UNDP UNFPA UNODC ILO UNESCO WHO WORLD BANK

UNAIDS / JC2145E (English original, May 2011)

ISBN 978-92-9173-949-3

UNAIDS, the Joint United Nations Programme on HIV/AIDS, is an innovative United Nations partnership that leads and inspires the world in achieving universal access to HIV prevention, treatment, care and support.

CHRONIC CARE FOR HIV AND NONCOMMUNICABLE DISEASES

HOW TO LEVERAGE THE HIV EXPERIENCE

UNAIDS
Joint United Nations Programme on HIV/AIDS

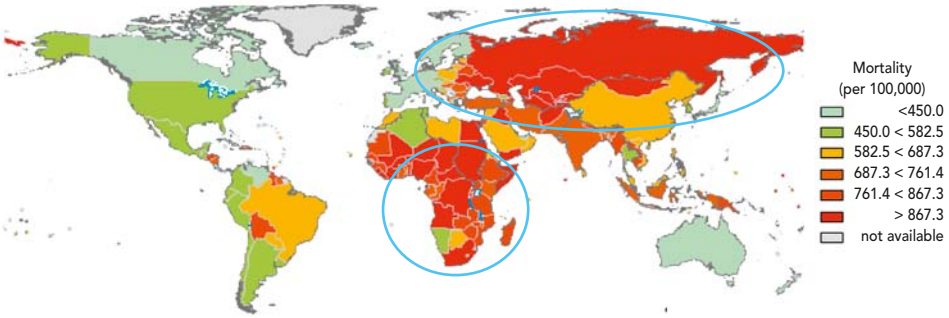
UNHCR
UNICEF
WFP
UNDP
UNFPA

UNODC
ILO
UNESCO
WHO
WORLD BANK

NONCOMMUNICABLE DISEASES AND HIV INFECTION OFTEN OVERLAP

Many countries with a high burden of HIV infection also face burgeoning epidemics of noncommunicable diseases. Similar to HIV, noncommunicable diseases are most frequent in low- and middle-income countries, and the age-adjusted death rates from noncommunicable diseases are nearly twice as high in low- and middle-income countries as in high-income countries.[i] The prevalence of diabetes, for example, is forecast to increase by 50% globally and by 100% in sub-Saharan Africa between 2010 and 2030.[ii]

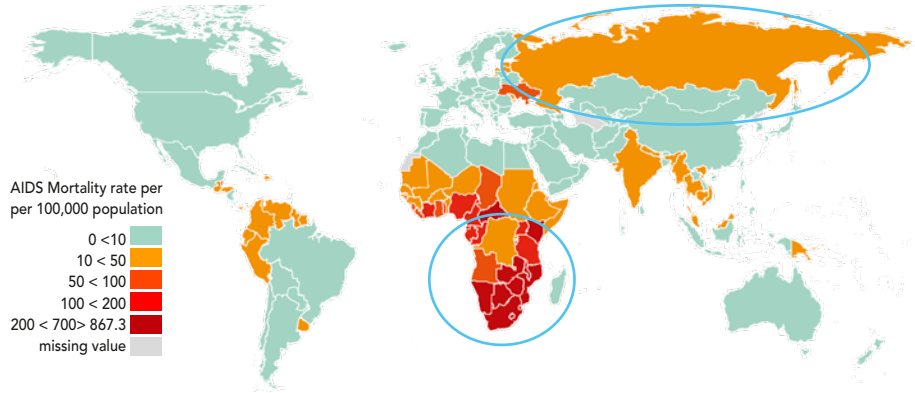
AGE-STANDARDIZED MORTALITY RATE FOR NONCOMMUNICABLE DISEASES, 2004



Mathers, C D, C Bernard, K M Iburg, M Inoue, D Ma Fat, K Shibuya, C Stein, N Tomijima, and H Xu, Global Burden of Diseases: data sources, methods and results, 2008.

Source: WHO

AGE-STANDARDIZED MORTALITY RATE FOR HIV



Source: UNAIDS

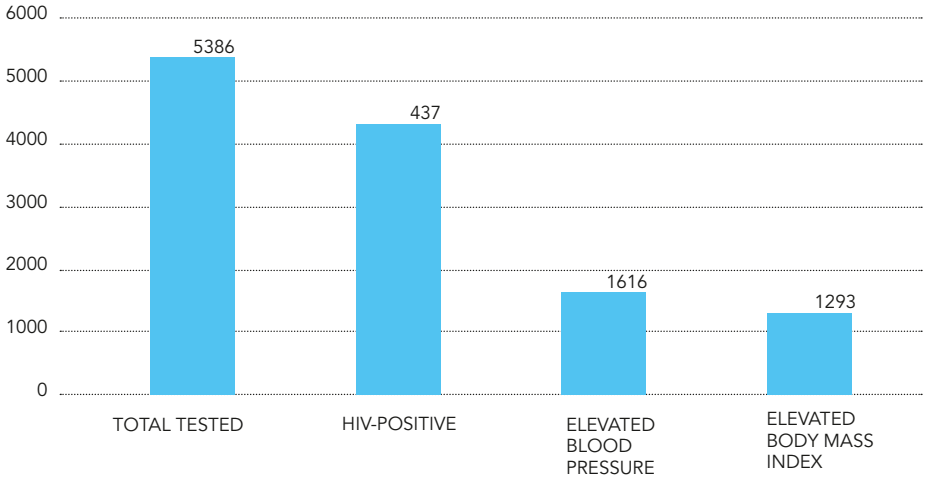
The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization and UNAIDS concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.

i Mbanya JC, Motala AA, Sobngwi E, et al. Diabetes in sub-Saharan Africa. Lancet 2010;375:2254-2266.

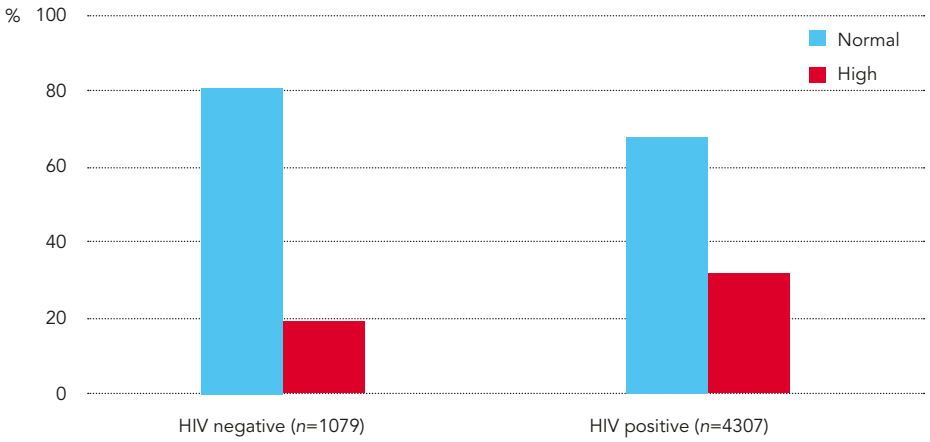
ii Stuckler D. Population causes and consequences of leading chronic diseases: A comparative analysis of prevailing explanations. Milbank Q 2008;86:273-326.

People living with HIV often also have high rates of noncommunicable diseases. With HIV programmes rapidly expanding, people with HIV are living longer and ageing, and are developing non-HIV-related chronic conditions similar to the rest of the population. Some noncommunicable diseases are related to HIV infection itself and to the side effects of some of the medicines used to treat HIV infection. Several of the opportunistic illnesses associated with HIV infection are noncommunicable diseases in their own right, such as HIV-associated lymphoma, cervical cancer and others. One study in Kenya demonstrated that, when people were screened for both HIV infection and noncommunicable diseases, HIV positive people had significantly higher rates of hypertension than those who were HIV negative. More than one third of the people who came for HIV testing had elevated blood pressure, and one quarter were obese.

HIGH RATES OF HIV INFECTION, ELEVATED BLOOD PRESSURE AND OVERWEIGHT DURING A SCREENING CAMPAIGN IN KENYA



RISK OF HIGH BLOOD PRESSURE ACCORDING TO HIV STATUS AMONG HIV COUNSELLING AND TESTING CLIENTS IN KENYA



Source: Mwangemi F, Lamptey P. Integration of HIV and CVD services in Kenya [oral presentation]. *HIV and Health Systems Pre-conference, 16–17 July 2010, Vienna, Austria.*

CHRONIC CARE FOR NONCOMMUNICABLE DISEASES AND HIV SHARE MANY SIMILARITIES

HIV and noncommunicable disease programmes share many challenges, both in start-up and maintenance, and can learn from each other. Many people who have noncommunicable diseases and many people living with HIV initially have few symptoms. Providing continuous care services for individuals with minimal symptoms requires different approaches than those used to provide acute or episodic care.Active models of chronic care delivery are rare in many low- and middle-income countries.

HIV and noncommunicable disease care both require ongoing attendance at appointments, adherence to tests and medications, healthy living and self-management. The responses to HIV and noncommunicable diseases can use similar approaches, including developing and using locally appropriate appointment and medication reminder systems, transport support, community follow-up of people who have not returned for their appointments or medication, patient education, referrals, accompanying people when appropriate, and counselling to support adherence and ongoing behaviour change. Decentralizing clinical and laboratory services and moving care to the community rather than requiring individuals to travel long distances to health facilities can play critical roles in supporting retention in both HIV care and noncommunicable disease care.

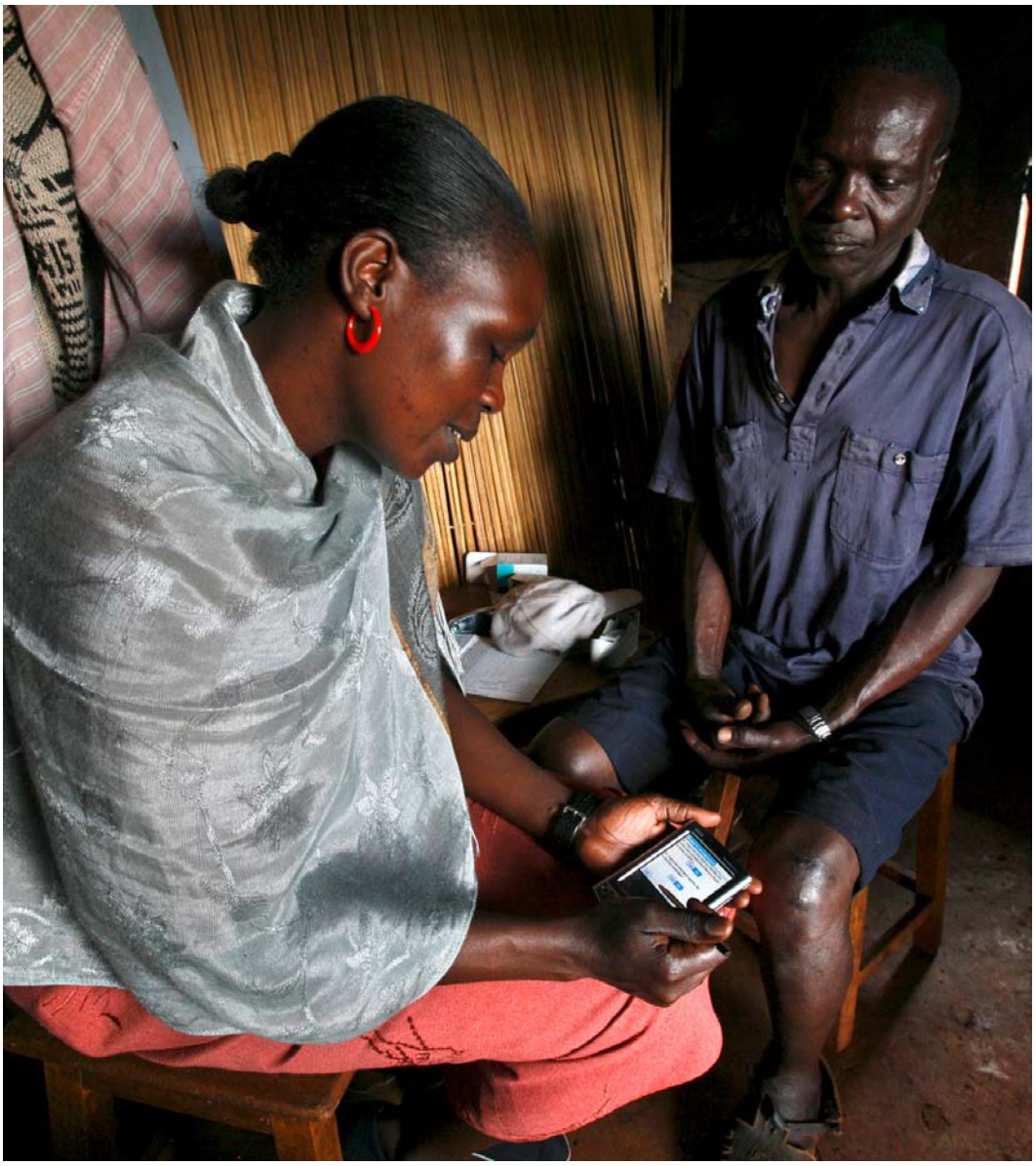
Similarly, both HIV and noncommunicable disease programmes are ideally implemented in primary health care and should address multiple health and family issues. For instance, HIV programmes have emphasized rapid, simple and standardized diagnostic testing that nurses or trained community health workers can perform for all family members at primary health centres and in the community. During family-focused clinical care, each person is asked about the status of all partners and family members at every visit to facilitate diagnosis and enrolment into care.

SHARED BARRIERS AND CHALLENGES FOR HIV AND NONCOMMUNICABLE DISEASES

	HIV	Diabetes	Cardio-vascular diseases	Chronic lung disease	Cancer	Mental disorders
Demand-side barriers	+	+	+	+	+	+
Inequitable availability	+	+	+	+	+	+
Shortages of health workers	++	++	++	++	++	++
Lack of adherence support	++	++	+	+	+	+
Inadequate infrastructure and equipment	+	+	++	++	++	+
Inconstant supplies of drugs and diagnostics	+	+	+	+	+	+
Missing linkage and referral systems	+	+	+	+	+	+
Need for engaging clients and the community	+	+	+	+	+	+
Stigma and discrimination	++	+			+	++

*Source:*Rabkin M, El-Sadr W. Why reinvent the wheel? Leveraging the lessons of HIV scale-up to confront non-communicable diseases. *Global Public Health*, 2011, 6:247–256.

Using the public health approach to providing personal health services and implementing step-by-step standardized algorithms to facilitate the treatment of large numbers of people is essential, especially when there are few health workers and taskshifting to nurses and community health workers occurs. This includes introducing structured medical charts, encompassing checklists and flow sheets, and ensuring the availability of medical supplies.



A community outreach worker makes a home visit in Eldoret, Kenya and asks a man (based on interview questions listed on a handheld device) whether he has begun coughing since his last visit – a screening question for tuberculosis

Photo by Evelyn Hockstein

HIV PROGRAMMES CAN BE LEVERAGED FOR NONCOMMUNICABLE DISEASE PROGRAMMES

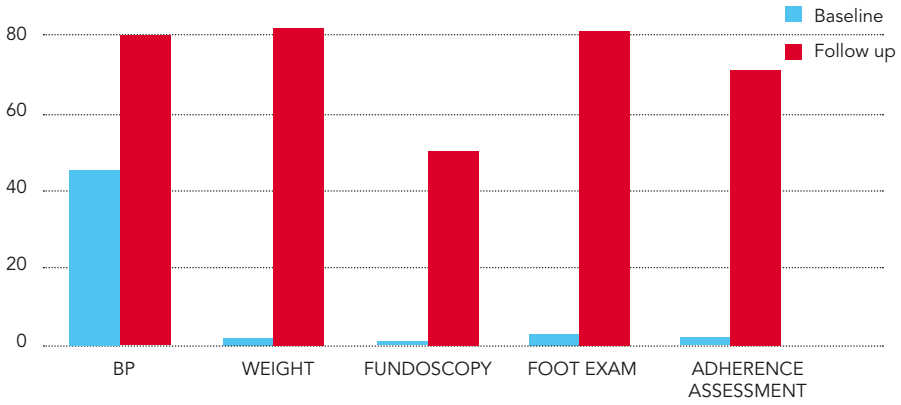
With the recent rapid scale up of HIV treatment, HIV has effectively become the first large-scale chronic care programme in many resource-limited settings. As countries strengthen and expand noncommunicable disease services, they can draw on the lessons learned by HIV programmes and review and adapt HIV ***programme approaches*** (peer programmes, defaulter tracing initiatives, multidisciplinary teams and community engagement), ***tools*** (registers, charts, forms and medical records) and ***systems*** (monitoring and evaluation, improving quality, supply chain and procurement, referring people and processing of specimens).

For instance, HIV programmes in many low- and middle-income countries have supported task-shifting and task-sharing, including the use of community health workers. The engagement of people living with HIV as peer educators, expert clients and community liaisons has further strengthened the health workforce and the responsiveness of HIV programmes. The response to HIV provides a model for engaging and empowering the individuals and communities affected by HIV, and the active role of people living with HIV in their own care has been groundbreaking and can serve as a model for other health programmes. Finally, HIV programmes have incorporated home-based care as well as faith- and community-based organizations and the private sector. These and other innovations have been shown to increase the efficiency, effectiveness and reach of HIV care services and can serve as models to facilitate the scaling up of noncommunicable disease services.

A peer educator speaks to clients at an adherence support room in Ethiopia

Tools developed for HIV care may be easily adapted for use in such programmes as those for diabetes and hypertension and may also apply to the care and treatment of people with cervical cancer and heart disease. A pilot programme in Ethiopia demonstrated the effects of adapting tools and approaches used in an HIV clinic to support diabetes services.

ADAPTED HIV PROGRAMME TOOLS SUPPORT IMPROVED DIABETES SERVICES IN ETHIOPIA



Source: Melaku Z, Reja A, Rabkin M. Strengthening chronic disease services in Ethiopia: lessons learned from HIV/AIDS program implementation health systems for chronic care and NCDs: leveraging HIV programs to support diabetes services in Ethiopia. Oral presentation 3 December 2010, Addis Ababa, Ethiopia

LEVERAGING THE LESSONS OF HIV TO SUPPORT DIABETES SERVICES IN ETHIOPIA

In 2010, Columbia University and the Ethiopian Diabetes Association, with the support of the Oromiya Regional Health Bureau and colleagues at Adama Hospital, implemented a study to determine whether the tools and approaches used for HIV could be applied to the care of adults with diabetes. Interventions included:

- adapting training materials, registers, appointment books, charts, flow sheets and job aids from the HIV clinic for use with people with diabetes in the general outpatient clinic;
- focused supportive strategies for supervising health workers providing diabetes care;
- training health workers in diabetes care and training and mentoring in supporting adherence; and
- peer educator training to provide adherence support and patient education, with multidisciplinary team meetings convened to review cases and overall progress.

At the end of six months, the quality of care provided to people with diabetes improved notably, including the percentage of people receiving key diabetes-related services, such as measuring blood pressure and weight, examining eyes and feet and assessing adherence. Since the tools and charts were locally developed and used by colleagues at the HIV clinic, the clinicians readily adopted the programme changes and collaborated well with peer educators.

LESSONS LEARNED: INTEGRATING HIV AND NONCOMMUNICABLE DISEASE SERVICES

Since primary health centres as well as clinics and hospitals are increasingly managing both HIV and noncommunicable diseases, interest is growing in various models for integrating both types of health services. Integrating HIV and noncommunicable disease services at the point of service refers to an integrated chronic disease clinic that provides continuous care services to a wide range of people, including those living with HIV and those with noncommunicable diseases. Tools and approaches are shared, and a multidisciplinary team of health workers provide services to everyone, such as in an integrated chronic disease clinic in Cambodia. Although there have been concerns that HIV stigma might make this impractical, there are success stories about such integration, and integrated chronic care clinics might be an opportunity to further reduce HIV stigma and discrimination. The pilot programme in Cambodia demonstrated the effectiveness of providing services for HIV, diabetes and hypertension in the same clinic, and stigma associated with HIV infection did not prove to be a major obstacle. Co-located noncommunicable disease services for individuals enrolled in HIV care and treatment have been advocated by people who note the large and growing numbers of adults and children who are already engaged in HIV continuous care, returning regularly for services.

Integrated chronic disease clinic in Cambodia

Source: Janssens B et al. Offering integrated care for HIV/AIDS, diabetes and hypertension within chronic disease clinics in Cambodia. *Bulletin of the World Health Organization*, 2007, 85:880–885.

Upstream integration of HIV and noncommunicable disease services means that services are not integrated at the point of service; a systematic and unified approach is used for developing guidelines, training, the roles and responsibilities of health workers, patient support, procurement, health records, monitoring and evaluation and measuring quality improvement. This ensures that lessons are shared, systems are harmonized and efficiency is recognized.

INTEGRATED HIV, DIABETES AND HYPERTENSION SERVICES IN CAMBODIA

In 2002, Médecins Sans Frontières and Cambodia's Ministry of Health piloted two chronic disease clinics for HIV, diabetes and hypertension in the provincial capitals Takeo and Siem Reap. They designed a fully integrated model using a patient-centred case management approach, flow charts, generic drugs and routine cohort monitoring. The integrated chronic disease clinics saw more than 9000 people between 2002 and 2005, including almost 5000 living with HIV, more than 2500 with diabetes and almost 1500 with hypertension. This programme demonstrated:

- high retention rates of between 70–90% for the various diseases;
  good health outcomes:
  - the median CD4 count of people living with HIV rising from 53 to 316 per mm3 at 24 months;
  - the median HbA1c (a measure of blood glucose) of people with diabetes falling from 11.5% to 8.6%;
  - 68% of people being treated for hypertension reaching the target blood pressure within six months;
- clinicians, counsellors, pharmacists and support group leaders proving able to manage people with various diseases; and
- no difficulties noted with the mingling of people with various diseases despite initial concerns about HIV-related stigma.

This programme[iii] illustrates the potential to provide integrated HIV and noncommunicable disease services at the point of service.

iii Janssens B. Integrated services for HIV, diabetes and CVD in Cambodia [oral presentation]. *HIV and Health Systems Pre-conference, 16–17 July 2010, Vienna, Austria.*

Many HIV programmes already screen for tuberculosis and can introduce a systematic approach to screening for and treating noncommunicable diseases and their risk factors – including tobacco use, excessive alcohol consumption, poor diet and physical inactivity. Several programmes have recognized the opportunity to use HIV counselling and testing to screen for noncommunicable diseases. The initiative in Kenya described previously is providing integrated cardiovascular disease and HIV diagnosis at five sites in the Coast and Rift Valley Provinces. The goal is to identify risk factors for cardiovascular disease among HIV counselling and testing clients, people living with HIV enrolled in care and people living with HIV receiving antiretroviral therapy and to provide medical and behavioral intervention on site at the HIV clinic or via referral. Overall, more than 5000 people have been screened, proving the feasibility of using the HIV counselling and testing platform to screen for noncommunicable disease risk factors.

South Africa's Ministry of Health recently announced plans for a unified health testing campaign[iv] aiming to test 15 million people for HIV infection, elevated blood pressure and blood sugar level. This will be the largest combined HIV and noncommunicable disease diagnosis programme in the world.

Testing for HIV and noncommunicable diseases in Kenya

Source: Mwangemi F, Lamptey P. Integration of HIV and CVD services in Kenya [oral presentation]. *HIV and Health Systems Pre-conference, 16–17 July 2010, Vienna, Austria.*

iv *Speech by the Minister of Health, Dr A Motsoaledi at the opening session of the Diabetes Leadership Forum Africa 2010.* Pretoria, Government of South Africa, 2010 (http://www.doh.gov.za/docs/sp/2010/sp0930.html, accessed 23 May 2011).

CONCLUSION

Health services for HIV care and noncommunicable diseases have common features, since both require health systems that can provide for people's long-term, chronic care needs. The health system innovations arising from the recent rapid scaling up of HIV treatment in several settings have already provided synergy to re-energize chronic care programmes and services for noncommunicable diseases. In particular, the emphasis on individual and community empowerment, leadership and engagement can be a model for the response to noncommunicable diseases. The delivery of care for people with noncommunicable diseases at primary health care centres can be a model for the further decentralization of HIV care. Increasingly, the traditional divisions between programmes for HIV and noncommunicable diseases are being bridged, enabling countries to build on the success of scaling up HIV services to expand access to 21st-century primary care that includes services for both HIV and noncommunicable diseases. No single approach to combining services is appropriate in all contexts; the most appropriate strategies depend on the prevalence of the specific disease and the specific characteristics of the health system in each country. Solutions need to be country-led, draw on local expertise and involve local stakeholders to succeed.

Photo: UNAIDS

20 Avenue Appia
CH-1211 Geneva 27
Switzerland

+41 22 791 36 66

unaids.org

UNAIDS
Joint United Nations Programme on HIV/AIDS

UNHCR UNICEF WFP UNDP UNFPA
UNODC ILO UNESCO WHO WORLD BANK