

# **THE HIV/AIDS PANDEMIC: PROGRAM IMPERATIVES AND POLICY ISSUES IN CIVIL-MILITARY RELATIONS**

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## **INTRODUCTION**

Africa is presently immersed in a "first wave" of HIV/AIDS-related challenges to human, national, and international security, whose pandemic second wave is also gaining strength in Asia, Eastern Europe, the Caribbean, and Central America.<sup>1</sup> At the end of 2002, the HIV/AIDS prevalence rate in Sub-Saharan Africa stood at about 29.4 million adults and children, representing 70 percent of the global total. Ominously, the world's second highest prevalence rate of 7.2 to 7.5 million occurred in South and South-East Asia and in East Asia and the Pacific, with more than 3,000 new cases daily. By 2010, Asia and the Pacific may well record more than 40 percent of all new HIV infections.<sup>2</sup> In confronting the pandemic in these and other regions, militaries present both a major threat of infection and an important potential instrument of its reduction.

The Civil-Military Alliance to Combat HIV & AIDS (CMA)<sup>3</sup> was founded partly on the basis of a concern that, for structural and historical reasons, a dangerous operational "distance" persisted between the health and defense sectors in countries where HIV/AIDS infections were reaching epidemic strength among civilian and military populations. A decade of experience in HIV/AIDS prevention policy and education has confirmed this situation and has enabled the CMA to isolate key program and policy areas that require continuing priority attention in order to improve both sectors' performance in the struggle against their common enemy.

Accordingly, this paper suggests an agenda for urgent, realistic action. Topics to be considered encompass proven (although often neglected or misapplied) programmatic tools that militaries can and must share with their civilian societies and among themselves. In addition to these are still-unresolved policy issues that are relatively specific to military services at home and on deployment in peacekeeping and other roles.

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## **CIVIL-MILITARY PROGRAM IMPERATIVES**

Militaries do not exist in a vacuum. Even though they are often physically isolated from civilian societies, they are very much a part of the wider human communities that they are intended to protect. In many of today's wars, where whole civilian populations are caught up in the fighting and its aftermath, troop deployments serve to extend and intensify the civil-military relationship. It can also be argued that during periods of both war and peace, the civil-military connection is particularly close in economically less-developed countries where militaries perform an important governance function and serve as a major avenue of gainful employment and advancement. Two of the largest concentrations of such countries are in Africa and Asia, which have likewise been the scenes of some of the world's largest number of armed conflicts and of regional and international peacekeeping operations.

Although life-prolonging drug therapies are available to those who can afford them, HIV cannot yet be prevented or cured through standard medical interventions. This means that for affected military and civilian populations alike, the only ways successfully to attack the virus lie in effective means to curb its spread through changes in behavior and to protect and care for those who are already infected. Because of the cultural sensitivities and social stigmas that are commonly attached to HIV's major means of transmission, and because of the relatively long length of its asymptomatic period before conversion to AIDS, these mechanisms must also be highly sensitive to the protection of human rights, values, and resources.

The arsenal of civil-military HIV/AIDS prevention and management contains four basic but essential weapons: (1) prevention education for HIV and other sexually transmitted infections (STIs); (2) condom promotion and provision; (3) HIV testing and counseling; and (4) treatment, care, and family/community support. All of these controls might seem to be fairly straightforward and easy to implement, but all are subject to technical, cultural, economic, political, and bureaucratic constraints that limit their use. Testing for HIV antibodies also involves strong ethical and legal issues. In addition, somewhat different protocols are needed for the application of HIV/AIDS prevention and management practices in military and civilian situations. The highly structured military setting may provide a more controlled environment for HIV prevention through behavioral change. Some militaries (for example the armies of Senegal, Thailand, Tanzania, and Zambia) have actually led in the development of national HIV prevention programs. It is thus becoming clear that HIV prevention and AIDS treatment, care, and support are maximized in high-incidence countries through a fifth programmatic imperative, close civil-military collaboration and, ideally, military-to-military cooperation.

**Prevention Education** "With no vaccine, and no cure, education is all we have."<sup>4</sup> Written a decade ago by a scholar of HIV and its global diffusion, this statement remains largely valid today. When the ultimate goal is to transform behavior in highly sensitive areas of human life, simple information transfer is not the same as education. Motivational learning does not result from episodic didactic lectures and briefings, but rather from on-going interactive relationships linking teachers and students at all levels, with peer education among both groups providing constant reinforcement.<sup>5</sup> Unfortunately, this is the most difficult and expensive form of learning to offer on a mass scale.

In 2000, the CMA published the results of a global survey of military HIV/AIDS policies and practices.<sup>6</sup> The survey found that, while most reporting militaries carried out STI/HIV prevention education, the majority relied on infrequent (yearly or less often) large-group briefings and on the passive distribution of written materials. Regularly scheduled briefings of any type occurred less often in Africa and Asia than in all other regions of the world, and virtually no militaries reported using peer-educational techniques. The study also revealed that 90 percent of militaries provided pre-deployment STI/HIV briefings to their troops, but only slightly more than half matched these sessions with post-deployment briefings despite long-standing evidence that the post-deployment period carries special risk of STI transmission.<sup>7</sup>

Despite improvements in some countries, there is little evidence that STI/HIV prevention education has advanced on a wide scale since the CMA survey was published, and for very good reason. One major programmatic problem for low-income, high-incidence countries lies in finding sufficient financial resources to mount full scale STI/HIV and sexuality education campaigns for adolescents during their school years. The same resource constraint faces the defense sector which often lack the resources to pursue full scale, interactive STI/HIV prevention education during recruit and officer training and also frequently thereafter, including before and after deployment and at military discharge. This implies that sufficient funding will have to be found to train large numbers of civilian and military STI/HIV prevention instructors and peer educators, using curricula and teaching methods that are already available and tested for effectiveness or are now being developed.<sup>8</sup>

**Condom Promotion, Provision, and Availability** "In a world with an HIV pandemic, the latex condom emerges as the only practical and responsible strategy."<sup>9</sup> Ensuring the maximum consistent use of latex condoms through their widespread promotion, practical instruction and ready availability is absolutely essential to breaking the pattern of STI/HIV infection through sexual intercourse. Moreover, the value of this particular weapon in the war against AIDS has

been greatly enhanced by the recent development of an efficient and effective female condom. Embodying highly organized command and control structures, militaries are relatively well placed to promote and distribute these crucial barrier devices.

In the earlier CMA survey, differences in military condom promotion and provision seemed to coincide with the magnitude of threat posed by HIV and AIDS. Reporting African militaries ranked among the world's highest in promotional policies and plans, including preliminary knowledge-attitude-practices-belief (KAPB) troop assessments and provision for free distribution with instructions for proper use. More generally, two shortcomings that appeared at the time of the survey remain today. First, condom promotion methods were similar to those for STI/HIV prevention education, with most respondents mentioning only group briefings and written materials.<sup>10</sup> Second, both then and now there are simply not enough funds available to facilitate more proactive approaches to condom promotion, to distribute condoms free of charge and in sufficient numbers, and to monitor consistent condom use in the armed forces of the most needful countries.

Framing the operational issues are questions of often deeply rooted religious and cultural beliefs and practices that prohibit or ridicule condom use, encourage multiple sex partners, and foster invasive and usually non-sterile procedures such as female circumcision and ritual scarification. These programmatic constraints compound other difficulties for civilians and soldiers alike, involving the risk-taking propensities of young men and women and the resolve-weakening effects of alcohol and drug use. Such impediments to the benefits bestowed by condoms must be carefully examined and mitigated on a country-by-country basis. For as Gould has argued, "it is only in place that we can observe a particular level of condom use, observe how it changes over time, and speculate about the particular mix of underlying reasons for the particular level we see in a particular geographical and historical setting."<sup>11</sup> It is said that the devil lies in the details, and only after these "particulars" are understood can informed action be taken. Such has been the case in Thailand, which suffered under very high HIV incidence and prevalence rates until the early 1990s when a socially and culturally sensitive safe sex campaign was mounted and the use of condoms became common practice.

The theme cannot be repeated often enough: PREVENTION WORKS, and the best tool that we have to pursue prevention interventions at this time is a barrier to the sexual transmission of HIV – the condom.

**Testing and Counseling** When the global CMA survey was completed in the late 1990s, experience in HIV antibody testing by African militaries was in its infancy as compared with militaries in Asia and other world regions. Because of the sheer magnitude of the epidemic in Africa and a critical lack of resources, the same can be said of HIV testing within civilian populations. For their part, African militaries ranked lowest in actually having formal testing policies, last in offering voluntary testing, and next to last (ahead of Europe) in requiring testing at any point in uniformed service from recruitment to discharge.<sup>12</sup> Since then compulsory military testing and screening has increased dramatically in Africa. This new interest is spurred by the burgeoning costs of AIDS care, as well as the cost of retraining to fill the positions of people lost to AIDS. Compulsory testing and screening has also gained importance by the attention recently given to the deployment of African forces in UN and other peacekeeping missions, and by an admittedly unenforceable UN recommendation that these troops should test negative for HIV.<sup>13</sup> This is in spite of the UN's correct but somewhat contradictory advice that, except under very special circumstances, mandatory testing practices fail to achieve the goals to which they are addressed. The UN likewise holds that, more often than not, mandatory testing practices are in violation of basic human rights to privacy and freedom from socio-economic and political stigmatization and discrimination.

Non-voluntary testing and screening are increasingly used to exclude HIV-positive individuals from recruitment and career advancement, and thus to preserve force readiness and deployment capacity while easing the strain on military medical and training budgets. Universal testing is also defended as a deterrent to HIV infection in countries where military service offers an important employment option. It is further viewed as a means of yielding surveillance data for future efforts at HIV prevention and vaccine development. Periodic mandatory testing is also seen as an essential way to identify HIV-infected serving personnel, and sequentially to adjust in-service duty assignments until such time as medical discharge is indicated. It goes without saying that HIV testing serves as a vital tool to identify personnel and their partners for counseling and care.

The CMA survey indicated that testing has been widely used to protect blood supplies, to comply with host-country deployment and training restrictions, for promotion in rank, and for screening assignment to duties requiring high performance standards (e.g., aircraft pilots, commandos, and tank commanders). The study added: "a majority of responding militaries fail to test their personnel periodically, which raises the question, for them, of whether any of these purposes can be adequately served through testing."<sup>14</sup>

Assuming that human rights are fully protected, universal-testing objectives may seem to be reasonable for well-funded and medically equipped militaries in countries with low HIV incidence and prevalence rates, i.e., militaries in industrial countries.<sup>15</sup> In the militaries of less-developed high-prevalence regions, these purposes cannot be served and some may actually be subverted by compulsory testing and screening.

The critical programmatic difficulty in this area lies in a familiar disparity between magnitude of need and capacity to act. At regional level, the CMA survey suggested an emerging positive relationship between compulsory military testing and low gross domestic products, high population growth rates, and short life expectancies - in other words, indicators of national poverty, which are also excellent markers for high HIV incidence and prevalence. This means that most military and civilian organizations in resource-poor countries have neither the medical capacities nor the financial means effectively and humanely to satisfy the protocols of *either* mandatory *or* voluntary testing programs.

Foremost among these is the need for periodic testing accompanied by confidential contact tracing and pre-test/post-test counseling of those found to be both HIV-positive and HIV-negative among their partners and families. In addition to its surveillance value, periodic testing for viral load and antibody/CD4 cell count enables military and civilian health agencies to assess the progression of infection for individual patients and thus to preserve their occupational and natural lives for as long as possible. Testing combined with counseling aimed toward employment- and life-extending treatment and care has further been found to provide an effective strategy for stemming the onward flow of HIV infection.<sup>16</sup>

Not surprisingly, the CMA survey found an economic factor at work in African and Asian military testing and counseling programs. Pre-test counseling was reported by 79 percent of African and 71 percent of Asian militaries which practiced universal testing. These percentages increased to 100 and 88, respectively, when testing encompassed voluntary methods.<sup>17</sup> This speaks to the comparative expense, for African and Asian armed forces, of the mandatory testing with counseling approach to HIV/AIDS prevention and management.

Whether testing and counseling are compulsory or voluntary, neither will create positive effects unless rules of confidentiality and informed consent are tightly defined and strictly followed, and if a diagnosis of HIV infection does not, in effect, become a death sentence because of stigmatization and discrimination. The effects of not adhering to these principles are the same for both civilians and military personnel. Cases abound of social ostracism, rejection from insurance and other services, denial of job entry, and dismissal from employment simply because of an HIV diagnosis - which may be inaccurate in the first place because the test may be

administered only once. These consequences merely drive the virus underground where it proliferates and mutates in fear and silence.

In one example, some African militaries are now facing a drying up of their recruitment pools, already decimated by AIDS, as a result of their sometimes thoughtless disclosure of test information and their abrupt rejection and/or dismissal of still-healthy recruits, trainees, and soldiers for no apparent reason. The problem, again, lies in a lack of funding and other assistance to train examining and administrative personnel, counselors and commanders; to require counseling for all tested soldiers and their families; and to offer meaningful in-service duty choices until medical discharge becomes necessary. African militaries are not insensitive to these needs. What they lack are the means to fulfill them.

**Treatment, Care, and Support** In that AIDS is, or soon will be, a leading cause of death in the militaries and civil societies of less-developed countries, questions inevitably arise as to the competing values of national security versus equal treatment, care, and support for all patients suffering from AIDS-related and other infectious diseases. Defense ministries must also seek a viable balance between military readiness and public health for their own personnel and their dependents. In short, AIDS and other diseases severely diminish and distort civilian and military budgets and decision-making capacities as well.

In the CMA survey, militaries were asked whether career-related consequences for their soldiers followed diagnoses of diseases suspected to be AIDS-related. African "yes" responses averaged 6 percent, as opposed to a range of from 43 to 89 percent for non-African militaries. No African militaries reported discharge from service solely on the basis of an AIDS diagnosis, while 88 to 100 percent of militaries in other regions reported discharge from service.<sup>18</sup> However, only 88 percent of responding African militaries offered care in military hospitals, the second lowest average in the world next to Europe where civilian health-care options are plentiful. Forty-four percent did refer military patients to civilian hospitals and dispensaries, and 71 percent noted provision for some form of home care and family support.<sup>19</sup>

It is well established that, even in upper-middle income African countries such as Botswana and South Africa, AIDS has overwhelmed rural and urban treatment, care, and support facilities.<sup>20</sup> In the civilian and military hospitals of these countries not even enough hospital beds are available to accommodate sick and dying AIDS patients. Financial and technical assistance is urgently needed to enable the civilian and military sectors to find equitable solutions to several critical and politically controversial problems that also apply to the police and other security services. Should military AIDS patients receive priority free care and drug therapies, perhaps in

specially established military AIDS facilities? Should long-term, home-based medical benefits be extended to discharged military AIDS patients and their dependents, which may be much greater than benefits made available to those around them? Should military widows and orphans likewise receive favored treatment in the provision of financial, legal, educational, and other protective benefits? Whatever their specifics, workable answers to these questions will have to involve close, capacity-building collaboration between civilian and military health services, made possible by external assistance to each.

In this, the final and most tragic link in the civil-military relationship created by HIV/AIDS, the need for humanitarian assistance equals the first-link need for successful HIV prevention education among children and youth.

## **Civil-Military Collaboration and Military-to-Military Cooperation**

**Civil-Military Collaboration** Especially in less-developed countries, success in the prevention and management of HIV and AIDS requires the establishment of close linkages between military organizations and civilian agencies. As the CMA survey concluded:

Civil-military cooperation can make available to civilian practitioners relatively sophisticated military epidemiological data bases. It can also ease the financial burden placed on military resources and broaden the ability of militaries to offer long-term care through referral to civilian medical facilities. In all countries, the most effective overall goal may be the adoption of long-term, multi-sectoral approaches to the control of HIV/AIDS, which treat the disease not only as an immediate threat to public health but also as a challenge to social, economic, and political stability and thus to national security in the broadest possible sense.<sup>21</sup>

Throughout the world, realization is growing that militaries are central to the war against the HIV/AIDS pandemic. High-prevalence countries that pursue vigorous HIV/AIDS prevention programs in the defense sector tend also to show results in restraining the pandemic across all segments of society. There is growing, albeit less well-established, evidence that when the military is actively represented on national AIDS councils, HIV prevention progresses more rapidly in both the armed services and civil society.

This kind of civil-military collaboration includes combined program planning, direct sharing of training materials, trainers and prevention campaigns, joint access to laboratory facilities and HIV testing and counseling services, and joint responsibility for AIDS hospitalization and care. Nationally and/or locally, countries whose militaries and civilian

agencies collaborate freely are likely to be those where incidence curves are flattening out and where prevalence rates may actually be declining. Countries such as Cambodia, Morocco, Senegal, Tanzania, Thailand, Uganda, and Zambia offer valuable insights into best practices and lessons learned for adaptation and application on a wider scale. Thailand and Senegal provide cases in point.

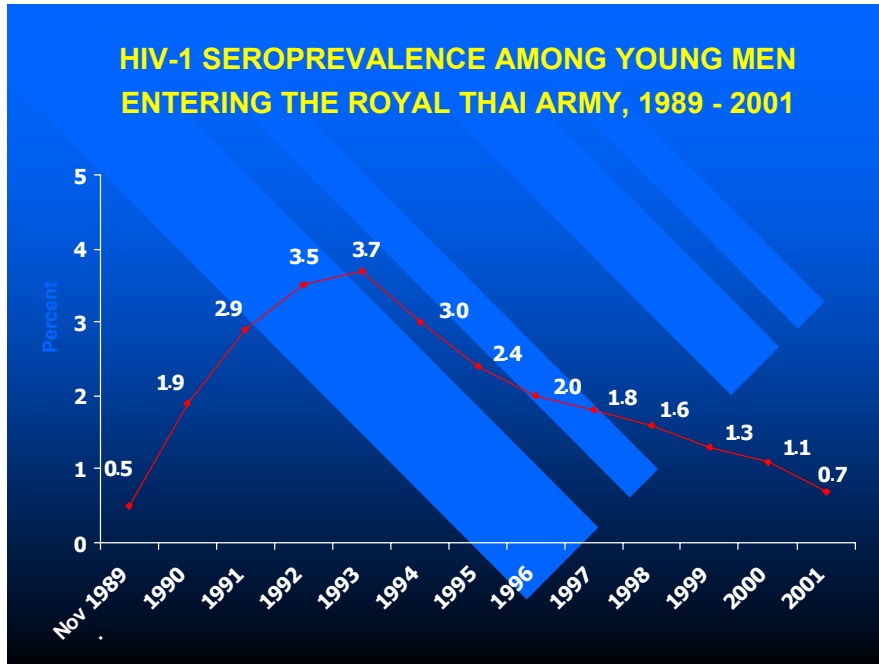
Thailand has endured one of the oldest HIV/AIDS epidemics in Asia, but has also been cited as one of the first countries to achieve stable and indeed declining surveillance curves. Thailand's first AIDS case was reported in 1984 and its first military case in 1987. Between 1985 and 1990, a comprehensive national prevention and care program was implemented with the Royal Thai Army (RTA) taking the lead in several areas. The military leadership had become greatly concerned about the disease, not only because of an increasing number of infections within the ranks, but also because HIV threatened the recruitment of young men especially from northern Thailand. In response, the RTA launched its own HIV/AIDS program that was designed around six main components:

1. prevention of new HIV infections;
2. supportive measures for already-infected personnel;
3. treatment in military medical facilities;
4. multi-sectoral coordination with civilian agencies;
5. international cooperation with other militaries; and
6. material support for medical research and development.

Preventive measures encompass HIV prevention education, HIV/AIDS awareness classes introduced into all military curricula, peer-group interventions targeted toward STI clinic attendees and other personnel at high risk, and comprehensive anti-discrimination education. Research and development include AIDS vaccine trials, in which the Thai Armed Forces Research Institute of Medical Sciences (AFRIMS) cooperates with international bodies such as the HIV Prevention Program of the U.S. Department of Defense (DoD), in addition to HIV molecular biological studies and the natural history of HIV infection.

Reaching out into communities from which it draws new recruits, the RTA HIV/AIDS prevention and management program has provided a major boost to civilian initiatives. The impact of this collaboration is suggested in Figure 1.

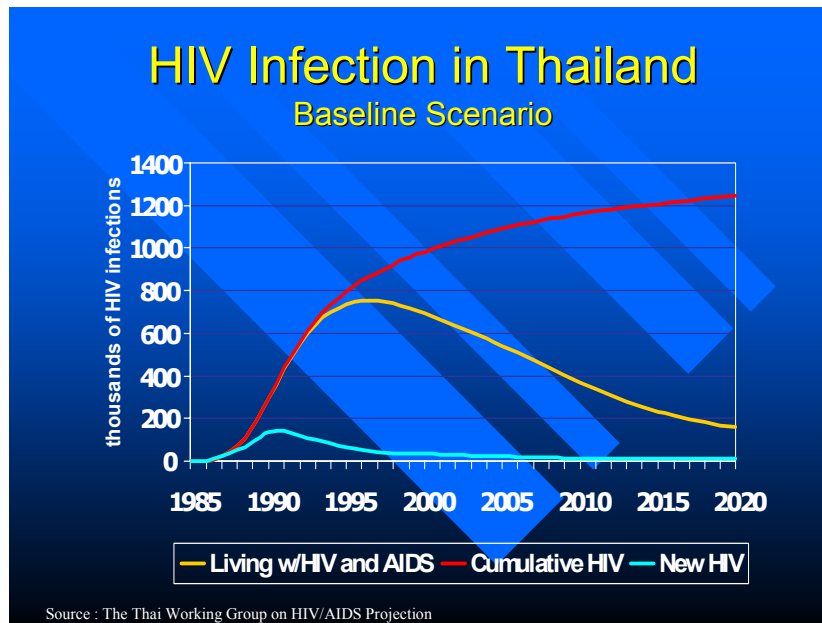
Figure 1



Source: Armed Forces Research Institute of Medical Sciences (AFRIMS) of Thailand

The overall influence of the program led by the Royal Thai Army on the course of the HIV epidemic in the general population of Thailand is projected in Figures 2 and 3.

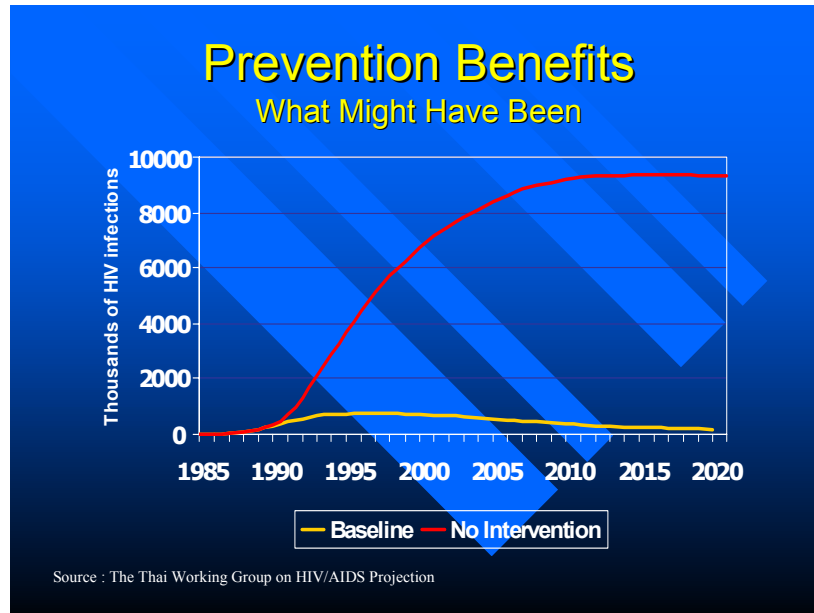
Figure 2



Source: The Thai Working Group on HIV/AIDS Projection

Source: The Thai Working Group on HIV/AIDS Projection

Figure 3



Source: The Thai Working Group on HIV/AIDS Projection

Senegal retains low HIV/AIDS rates, largely because of its early and concerted response to the West African HIV2 epidemic. In spite of the fact that the Senegalese rural and urban areas share the same risk factors with neighboring countries exhibiting much higher rates of infection, here the surveillance curves remain flat with less than 1 percent prevalence. This success can be attributed to vigorous HIV/AIDS prevention and care programs in the military as well as in civilian society. Africa's premier HIV virology laboratory is located in Dakar, and its director is also a colonel in the Army of Senegal.

From the outset, the Senegalese government has presented a very open public approach to HIV prevention, complete with a campaign involving condom promotion, distribution, and education on proper use. Nowhere is this more evident than in the armed forces. HIV prevention is strongly reinforced each time an army contingent prepares for a peacekeeping mission, with overwhelmingly positive results. Pre- and post-deployment testing has confirmed that Senegalese troops have never yet brought a case of HIV home with them from peacekeeping operations, a record that almost no other country can match among the more than 100 that contribute UN peacekeeping troops, observers, and support personnel.

**Military-to-Military Cooperation** Sharing of data and lessons learned is essential to the prevention and management of HIV/AIDS in the armed services of less-developed countries, which are among the most vulnerable groups to infection worldwide. Between 1995 and 2003, this premise has guided the work of the CMA through 11 regional technical and policy workshops convened in Africa, Asia, the Caribbean, Eastern Europe, and Latin America.<sup>22</sup> In the spirit of

civil-military collaboration, workshop participants have included not only military medical officers, but also representatives of ministries of health, national AIDS committees, and, on occasion, international agencies and non-governmental organizations (NGOs). One important result of these workshops has been the establishment of three networks of technical cooperation among the militaries of Eastern and Southern Africa, Francophone Africa, and Anglophone West Africa.<sup>23</sup> The purpose of these CMA sub-regional networks is to facilitate communication across state boundaries, aimed toward information sharing on HIV/AIDS prevention and management.

Individual countries have also undertaken such initiatives. Thailand, for example, is one of the most active states in Asia engaged in military-to-military cooperation, albeit more in giving than in receiving assistance. The Thai military has much to offer in best practices and lessons learned, and has freely offered these in several regional conferences organized by the CMA and likewise in bilateral exchanges with other Asian militaries. The RTA and the Thai Ministry of Health Public Health Service have been engaged by the United Nations Children's Fund (UNICEF) to carry out several missions in China to help local authorities in the development of plans for HIV/AIDS prevention and care. In 1995, officers of the RTA and the Armed Forces Research Institute (AFRIMS) participated in a UN Department of Peacekeeping Operations (DPKO) mission to Cambodia with subsequent follow-up visits. The overall goal was to help the Cambodian Ministry of National Defence to devise and implement an AIDS control plan. As previously noted, the RTA and AFRIMS are also active participants with the U.S. military and other foreign partners in the advanced stages of vaccine trials programs that will ultimately benefit the entire Asian region.

The Senegalese military has likewise shared experience with its counterparts in Africa, in 1997 at an all-Francophone seminar for the militaries of 18 countries of West and Central Africa. In 1998, the Army of Senegal hosted a mixed English/French HIV/AIDS policy seminar involving the militaries of seven West African countries. Seasoned Senegalese military-medical staff members have regularly conducted technical-support missions to countries that launched their military HIV/AIDS prevention and control programs somewhat later than Senegal.

Much the same can be said for the Zambian National Defence Force, which has introduced its unique Mobile Military Prevention Teams to other militaries in Eastern and Southern Africa.<sup>24</sup> Reaching out to military personnel and their dependents as well, the Zambian mobile teams demonstrate the necessity of both civil-military involvement and military-to-military cooperation in the struggle against HIV/AIDS.

## **MILITARY POLICY ISSUES**

The preceding discussion of HIV/AIDS program imperatives applies similarly to military and civilian populations, and to their interaction, especially during times of relative peace and security. A number of other policy issues are specific to military and security forces, and become even more critical to both the armed forces and civil society when peace breaks down and soldiers are thrown together with civilians into conflict and immediate post-conflict situations. When public order has disintegrated, the military is often the only institution capable of restoring it and managing the transition to a more permanent stability. Under these circumstances, prevention and control of infection form two of the most difficult and yet essential aspects of socio-economic and political recovery. But even as the military assists society in this manner, it must be able to help itself by addressing serious questions of HIV risk and risk management within its own ranks.

**The Military Work Place** The armed forces recruit young men and women at a time of their greatest risk to HIV, in the 15 to 25 year age group where more than half of all new infections occurs. The senior officer corps may also be highly susceptible to HIV infection. In many countries, military officers are very much a part of the educated elite whose patterns of behavior and long-distance travel may have already caused it, as a class, to be "hollowed out"<sup>25</sup> by AIDS. In general, military personnel are especially vulnerable in that they are regularly away from home and family for extended periods, are often in need of recreation to relieve stress and boredom, and are subject to risk-enhancing alcohol and drug use. They may have feelings of invincibility, in a profession and as members of peer groups that often excuse and even encourage risk-taking. Military installations attract sex workers and drug dealers, enticing off-duty soldiers who are sure to have cash, but not necessarily condoms and sterile syringes, in their pockets.

The military risk environment is further enhanced by the missions that African, Asian, and other militaries are increasingly called upon to carry out. These may include internal and cross-border armed conflicts, at worst accompanied by genocidal ethnic, religious, and territorial confrontations and massive displacements of civilian populations, combining to produce highly complex humanitarian emergencies. By the late 1990s, 16 such wars raged in Africa (40 percent of the world total) and 14 in Asia (30 percent).<sup>26</sup> Five of the African conflicts resulted in military deaths exceeding 100,000 each.<sup>27</sup> As members of regional and international peacekeeping forces, soldiers enter or remain in infectious disease-endemic former theaters of operation, to assist civilian relief workers in their attempts to improve public health and to restore reasonably normal social and economic activities. Always at the top of the list among wartime and post-wartime

infectious diseases are STIs, and HIV is five to 20 times more likely to be transmitted in the presence of other STIs. In peacetime, military STI rates are generally two to five times higher than in surrounding civilian populations,<sup>28</sup> and under wartime and immediate post-wartime conditions military infection rates may soar.

In less-developed countries at least, the military workplace is just as prone to HIV infection and onward transmission as are the workplaces of civilians who find themselves in high-risk positions. Foremost among these are middle-class bureaucrats and entrepreneurs, long-distance transportation workers including seafarers, migrant laborers, international refugees and internally displaced persons (IDPs), and commercial sex workers. And yet, unlike these and other segments of civil society, militaries are still significantly (although no longer totally) excluded from the targeted bilateral and multilateral assistance that is absolutely necessary to slow the spread of HIV and AIDS. In the past, exclusion might have been justified by the argument that militaries, which receive their own support, were not proper recipients of humanitarian and development assistance. Now, these militaries are manifestly part of a global humanitarian and developmental crisis. At this point the critical issues are how to convince donors completely to eliminate this deadly bias in foreign assistance, and how to convince the commanders and political supervisors of militaries that receive foreign aid to place HIV/AIDS prevention and management at the top of their wish lists.

**Military Command and Control Structures** Command and control structures, central features of all formal organizations, are especially visible and important in the armed forces, and incorporate both advantages and disadvantages for HIV/AIDS prevention and management. The military's well-developed span of control and chain of command hierarchies provide the means to induce change over a wide range of behaviors. Changes in sexual behavior, difficult to bring about in the best of circumstances, may be especially difficult to achieve for off-duty soldiers and sailors and for troops who are deployed in operational areas.<sup>29</sup> In these circumstances, it is naïve simply to rely on written codes of conduct. More proactive supplementary approaches are needed to mobilize military discipline and behavioral regulation on behalf of HIV prevention.

Two factors have further weakened the capacity of military organizations to control the spread of HIV, especially in regions like Africa where the disease has reached epidemic proportions within civilian populations. First, military commanders and medical officers respond to somewhat different mandates, with commanders more interested in maintaining deployable force strength and medical officers more concerned with maintaining a healthy fighting force. For a long time in Africa, as HIV rapidly spread in the ranks, a second factor has blurred the obvious

linkage between these goals. Unlike other infectious diseases such as dysentery and malaria, HIV is not an immediate deterrent to combat. In adults, an asymptomatic phase occurs for up to 12 weeks after the infection is acquired, even as the circulating viral load steeply climbs and HIV-specific antibodies combined with CD4 positive-t white blood cells attempt to respond, and then serological testing will reveal the change to "HIV-positive". A chronic phase of decreasing immune function follows that, even if left untreated, may last for up to 10 years of physical fitness before the onset of symptomatic AIDS.<sup>30</sup>

HIV is indeed a "slow plague" that initially lulled force commanders and civilian leaders into a mistaken belief that their countries were not seriously endangered by the virus. This false sense of security has since all but evaporated, not least because of heavy losses within the officer corps and the civilian leadership themselves. Yet, in spite of a growing understanding of the impact of the epidemic on the security sector, military command commitment to HIV control remains heavily oriented toward an illusory "quick-fix" through the use of pre-recruitment testing and screening.

Practical responses to all of the civil-military programmatic imperatives raised in the first section of this paper are absolutely vital to military commanders and to the troops under their command. The UN Department of Peacekeeping Operations (DPKO) has acknowledged the pressing need to sensitize senior officers to the top priority of HIV prevention in the conduct of peacekeeping missions.<sup>31</sup> In late October 2002, the AIDS Control Organization of the Indian Armed Forces released its own *Commander's Handbook, Fighting AIDS on a War Footing*.<sup>32</sup> A greater effort is still required, of necessity externally supported, to convey the same sense of urgency and capacity for change to the command and control structures of Asian, African, and other resource-deprived national militaries, which are also primary troop contributors to UN peacekeeping missions.

**Military Training, Service, and Conversion to AIDS** Particularly in Africa, compulsory pre-recruitment HIV testing and screening have been justified partly on the grounds of a largely intuitive notion that, in and of themselves, strenuous military training and service under harsh conditions weaken the human immune system and accelerate the progression of HIV infection to symptomatic AIDS. Official reports from Malawi have even maintained that "a soldier loses about five kilograms of weight after training which makes him/her more susceptible to infections associated with HIV/AIDS."<sup>33</sup> According to one interpretation of this argument, military training itself can be a co-factor of HIV infection, which is surely an absurd proposition even in infectious disease-endemic African environments.

A more careful but presumably unreplicated study in Zimbabwe compared the effects of training on HIV-positive and HIV-negative army recruits. It found that after only three weeks of strenuous activity, HIV-positive recruits had smaller abdominal, waist, thigh, and calf circumferences and more abnormal blood conditions, abdominal disorders, upper respiratory infections, and the like, compared to their HIV-negative mates.<sup>34</sup> Aside from the rather brief time frame allocated to this examination of a training program that lasts for nine months or more, the study failed to consider the point at which each HIV-positive subject was located along the continuum from initial infection to the appearance of AIDS symptoms. An accurate determination is possible, if still expensive, through blood tests for viral load and CD4 cell count. In the absence of these diagnostic benchmarks, any investigation of the singular impact of military training and service on the progression of HIV is scientifically flawed, especially in the military recruitment pool of Zimbabwe and African countries in general.

The real problem is that such militaries lack the financial and technical resources to devise and implement recruitment policies that transform HIV's long chronic period from a loss into a gain. Policy reform in this area would significantly reduce the twin evils of social stigmatization and employment discrimination and would help to maximize the overall contributions of young adults seeking military service. Without the necessary means to accomplish this end, militaries must fall back on exclusionary recruitment policies that waste human potential even as they deny basic human rights.

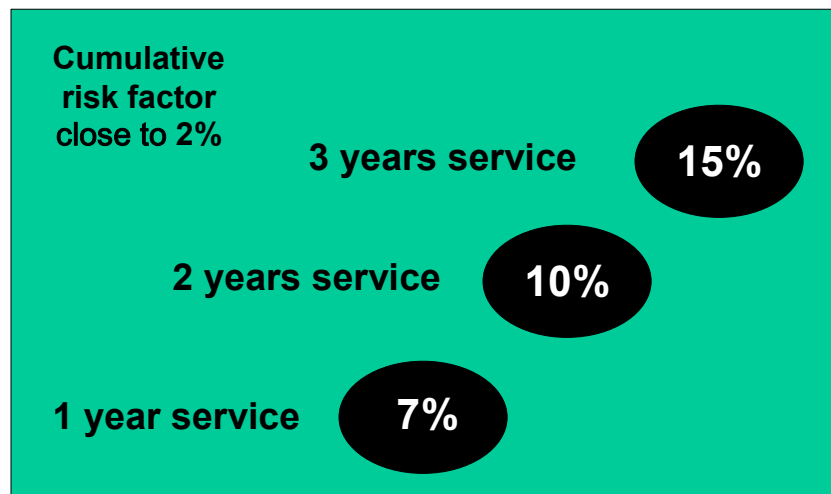
**Length of Deployment and Risk of HIV Infection** Notwithstanding the preventive successes of the Senegalese army and a few other militaries, it stands to reason that length of deployment in HIV-endemic operational areas is independently and directly associated with risk of HIV infection - and yet little empirical evidence is available to confirm this hypothesis. At least one relatively recent case study is available from Africa, which may be sufficient to make length of deployment an important policy issue for military and peacekeeping commanders to consider and resolve.

During the 1990s, Nigerian ground forces were deployed as the major component of a sub-regional peacekeeping mission of the Economic Community of West African States Monitoring Group (ECOMOG) in Sierra Leone and Liberia. An epidemiological study of this campaign was conducted by Brigadier General A. Adefolalu, Commandant and Chief Consulting Surgeon at the Nigerian Army Medical Command School Headquarters in Lagos. Adefolalu concluded that HIV prevalence among Nigerian Army troops increased from less than 1 percent in 1989/90 to 5 percent in 1997, and by 1999 to 10 percent. The years 1998 and 1999 coincided

with a return of troops from ECOMOG operational areas, and among them the HIV prevalence rate was 12 percent. The Adefolalu study also included a comparative analysis of HIV incidence and the lengths of soldiers' duty tours in the turbulent Operation Sandstorm area of Sierra Leone. Incidence rates among these troops increased from 7 percent after one year in the operational area to 10 percent after two years, and to more than 15 percent after three years of deployment, for a cumulative annual risk factor of about 2 percent.<sup>35</sup>

Figure 4

### HIV prevalence among Nigerian troops (according to years of duty as peacekeepers)



Source: Adefolalu A. *3<sup>rd</sup> All African Congress of Armed Forces and Police Medical Services, 1999, Pretoria*

Effective responses to the length-of-deployment issue depends on whether militaries can acquire the necessary tools to lessen their soldiers' exposure to war zones made additionally dangerous by HIV and to lower their risk of infection while serving in these places. This means shorter tours of duty in conflict and immediate post-conflict theaters of operation, together with constant reinforcement of pre-deployment HIV prevention education, including squad-level peer education, and proactive condom promotion and distribution extending well into the post-deployment period. These are not technically complicated or even necessarily expensive responses, but at present they are well beyond the means of most militaries in Africa, Asia, and other less-developed regions.

**Complex Humanitarian Emergencies and Peacekeeping** Once HIV has become firmly established through heterosexual contact, it can spread rapidly in societies that are at peace and

where free movement of people and trade is the norm. HIV also thrives in the complex humanitarian emergencies that are created and sustained by socio-economic and political disintegration, communal strife, and armed conflict. Fighting places cross-border refugees and internally displaced persons (IDPs) on the move and into situations of extreme vulnerability. By the end of 2000, the UN High Commissioner for Refugees (UNHCR) reported nearly 5.5 million refugees and IDPs in Africa and more than 7 million in Asia.<sup>36</sup> What has become a culture of violence partly because of HIV and AIDS also helps to extend the chances of acquiring the virus. This reflects the structural nature of the HIV risk environment for populations trapped in complex humanitarian emergencies, which exists before hostilities have commenced and continues after they have ended.

The structural HIV risk environment is an extremely important factor to consider when peacekeeping forces are sent in to separate contending parties and to help restore public order. Countries that contribute and host peacekeepers have both recognized that HIV transmission is a two-way street. Troops can bring the virus home with them and they can transmit it to comrades-in-arms and civilians in the field. These are particular concerns for ministries of defense that are increasingly asked to provide peacekeepers for deployment in their own regions.

For example, the South African National Defence Force (SANDF) is a potentially major contributor of peacekeeping contingents to the DPKO and to the sub-regional Southern African Development Community (SADC). In his assessment of the SANDF's future capabilities, Price-Smith warned: "it is apparent that the high and increasing prevalence of HIV in the SANDF will weaken its combat readiness [and] undercut its ability to support international peacekeeping operations . . . ."<sup>37</sup> SADC's April 1999 Blue Crane multinational peacekeeping exercise offered evidence to support this view. According to one study, nearly half of all participating national contingents were HIV-positive and slightly under a third of the South African component was judged to be medically unfit for deployment.<sup>38</sup>

The UN Security Council confirmed these realities at its opening session on January 10, 2000. For the first time in UN history, the Council recognized a public-health problem, HIV/AIDS in Africa, as a threat to international peace and security.<sup>39</sup> Following similar alarms raised in the General Assembly, attempts were made to strengthen HIV prevention activities in the DPKO at pre-deployment training sites and for peacekeepers already in the field.<sup>40</sup> As is typical of relations linking national governments to UN organizations, rhetoric has not been matched by actual commitment. HIV/AIDS prevention remains grossly under-funded in the DPKO, which is forced largely to rely on troop-contributing states to provide the necessary levels of prevention education, testing and counseling, condom promotion and monitoring of use, and

STI treatment. This obligation is impossible for most contributing militaries to fulfill without substantial external assistance. Bilateral cooperation to relieve the problem is specifically called for in Security Council Resolution 1308 of July 2000,<sup>41</sup> but affluent UN members have yet significantly to respond.<sup>42</sup>

In April 2000, the U.S. National Security Council (NSC) released a declassified version of the Central Intelligence Agency's (CIA's) own first-ever intelligence estimate related to public health, concerning the global impact of infectious diseases. This report described the HIV/AIDS pandemic as a direct threat to U.S. national security.<sup>43</sup> In late 2002, a further report issued by the NSC/CIA and a conference organized by the independent Center for Strategic and International Studies (CSIS) focused immediate security attention on the next wave of the HIV/AIDS pandemic in the populous regional giants of China, Ethiopia, India, Nigeria, and Russia.<sup>44</sup> Further justification should not be necessary for a substantial commitment of bilateral and multilateral support toward the creation and maintenance of an HIV-free international peacekeeping force. In Africa, the most pressing case in point, not moving in this direction will result in a catastrophic loss of regional force strength, "effectively shifting the burden of peacekeeping operations . . . to non-African countries (including the United States)."<sup>45</sup>

**Demobilization, Reinsertion, and Reintegration into Civil Society** The Chinese and Russian armed forces have demobilized the world's largest number of troops in recent years but, from the standpoint of HIV/AIDS prevention and management, the human stakes of military demobilization are still highest in Sub-Saharan Africa. Following decades of relentless poverty and economic downturn, socio-political instability and outright warfare, Africa now faces the challenging issue of how to retire thousands of soldiers from duty and to reintroduce them into civilian society. The problem is further complicated by the fact that HIV incidence and prevalence rates are generally much higher in military than in civilian populations, and African civilian as well as military populations are already inundated by HIV/AIDS. Nevertheless, "if demobilisation programmes do not include prevention and peer counseling, the reintegration of HIV-Positive soldiers into new communities and the return of combatants to their original villages may result in a major proliferation of the virus."<sup>46</sup>

In a way similar to military service itself, demobilization and its aftermath present not only a problem for HIV/AIDS prevention and control but also an advantage. Regular troops and even guerilla forces are readily identifiable and subject to cantonment, where HIV prevention education and counseling can be administered and where voluntary testing, care, and transitional support can be provided before they are sent home. It may also be possible to convert former

combatants into fighters in the war against HIV and AIDS. According to Mendelson Forman and Carballo:

In Sub-Saharan Africa, where the resources for HIV prevention are limited at best and non-existent at worst, the structured and externally financed demobilisation of military personnel presents a number of opportunities for innovative and creative solutions. Many of the region's armies are capable of delivering healthcare and providing community education and logistical support to villages. With sound training and follow-up supervision, some demobilised military personnel could work with active duty forces to become 'agents of change', specifically in regard to HIV prevention. They could be trained in the organisation of discussion groups, the provision of counseling and the marketing and distribution of condoms, and they could assist in carrying out urgently needed community-based surveillance of changing attitudes and behaviour regarding HIV/AIDS.<sup>47</sup>

These new functions, which might well apply in other less-developed regions, would help to change local attitudes toward returning war veterans from perceptions of foreboding to expressions of support. They would likewise improve African governments' standing with bilateral and multilateral loan and aid partners that more-or-less formally mandate military downsizing as a condition of recovery and development assistance, but which may also fear the spread of HIV/AIDS that can result from rapid and massive reductions in force. The quandary is that large amounts of foreign assistance are needed to activate this constructive linkage between demobilization, public health and development, and here the record to date is spotty.

One of Africa's largest demobilization and reinsertion exercises has occurred in Nigeria. Although the U.S. Agency for International Development (USAID) and the British Department of International Development (DFID) provided assistance in this effort, little if any funding was assigned to HIV prevention and control.<sup>48</sup> On the other hand, USAID and DoD are now including HIV activities in their demobilization support for African defense ministries and health-care agencies. Similar initiatives are being planned and implemented by the DFID, the Canadian International Development Agency (CIDA), the German Gesellschaft für Technische Zusammenarbeit (GTZ), the Swedish International Development Authority (SIDA), and other governments including the Netherlands and Norway.<sup>49</sup> But unless the levels of this assistance are significantly raised and applied in an informed manner, what has been invested thus far may soon become a wasteful example of too little and too late.

## CONCLUSIONS

As is often stated, the world's less-developed regions are clearly at a crossroads. Many countries in these regions are unevenly emerging from decades of political instability and authoritarianism, socio-cultural ferment, economic stagnation and mass poverty, and international dependency. A new era of reform has begun and security-sector reform is very much a part of the process, and yet all of these nascent advances are threatened by the unrelenting crisis of HIV/AIDS. The good news is that at long last HIV/AIDS prevention and mitigation have become priorities of both the defense and development communities. In the words of World Bank President James Wolfensohn, spoken at the precedent-setting January 10, 2000 opening session of the UN Security Council, "we face a major development crisis, and more than that, a security crisis. For without economic and social hope we will not have peace, and AIDS surely undermines both. We need to break that vicious circle of AIDS, poverty, conflict, AIDS. For the truth is that not only does AIDS threaten stability, but when peace breaks down it fuels AIDS."<sup>50</sup>

The less happy news is that, while the civil-military programmatic and policy requirements to break the circle are well understood in Africa and elsewhere, the political and financial resolve to do so remains woefully inadequate. And the African HIV/AIDS epidemic is only the first wave of a pandemic that will soon engulf the majority of the world's population and inhabitable landmass.

Across this vast human and physical landscape, the only effective and cost-effective weapons to combat HIV are found in its prevention through changes in behaviors that vary considerably from culture to culture and are often grounded in deeply held attitudes, values, and beliefs. The magnitude of the task at hand, compounded by the vaccine-eluding adaptability of the virus, means that traditional inter-territorial and inter-sectoral distinctions mean little in the struggle to overcome this deadly enemy. The pandemic presents a clear and present danger not only to public health, socio-economic advancement, and political stability, but also to basic human security no matter how it is defined and to the national security of even the least-affected affluent countries that control most of the world's wealth and power. This realization should prompt a well-founded sense of urgency in the war against HIV and AIDS.

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## References and End-notes

<sup>1</sup>Schneider, M. and Moodie, M., 2000, *The destabilizing impacts of HIV/AIDS*. Washington: Center for Strategic and International Studies (CSIS). See also The Director of Central Intelligence (DCI) Strategic Warning Committee, 2002, *The next wave of HIV/AIDS: Nigeria, Ethiopia, Russia, India, and China*. ICA 2002-04-D. Washington: National Intelligence Council (NIC).

<sup>2</sup>Joint United Nations Programme on HIV/AIDS (UNAIDS) and World Health Organization (WHO), 2002, *AIDS epidemic update: December 2002*. Geneva: UNAIDS/WHO, pp. 5, 6.

<sup>3</sup> See [www.certi.org/cma](http://www.certi.org/cma)

<sup>4</sup>Gould, P., 1993, *The slow plague: a geography of the AIDS pandemic*. Cambridge, MA and Oxford, UK: Blackwell Publishers, p. 46.

<sup>5</sup>Jenkins, P.R., Nannis, E., Johnson, A., et al., "STD behavioral interventions in the military: a study of short term efficiency," presented at the U.S. Centers for Disease Control and Prevention National STD Conference, Atlanta, GA, 1996. This study determined that, in addition to small-group learning interactions, the most effective means of inducing behavior change in STI prevention are through individual risk assessments combined with situational practice sessions in risk reduction.

<sup>6</sup>Yeager, R., Hendrix, C.W., and Kingma, S.J., 2000, "International military human immunodeficiency virus/acquired immunodeficiency syndrome policies and programs: strengths and limitations in current practice," *Military Medicine*, 165:87-92.

<sup>7</sup>Ibid., p. 88, and Deller, D.D., Smith, D.E., English, D.T., et al., 1982, "Venereal diseases," in *General medicine and infectious diseases*. Office of the Surgeon General and Center of Military History, U.S. Army, Series Internal Medicine in Vietnam, Vol. 2, pp. 233-55. Washington: Government Printing Office.

<sup>8</sup>For example, Ruscavage, D. and Purnell, P., 1999, *HIV prevention and behavior change in international military populations*. This five-module training-of-trainers curriculum for international peacekeepers was developed and field-tested in Europe, Africa, and Asia by the CMA for the UN Department of Peacekeeping Operations (DPKO), with support from the Henry M. Jackson Foundation for the Advancement of Military Medicine and the Ford Foundation. A version of the curriculum was produced and field-tested in Africa for national uniformed services in 2000, titled *HIV prevention and behavior change in the uniformed services*, available at [www.certi.org/cma](http://www.certi.org/cma) in English, French, Russian, Spanish, and Bahasa-Indonesian. Another more specialized training module was published and field-tested in Africa during 2001. Ruscavage, D. and Yeager, R., *HIV prevention in conflict and crisis settings*, in collaboration with the USAID/Tulane University Complex Emergency Response and Transition Initiative (CERTI), also available at [www.certi.org/cma](http://www.certi.org/cma). English and French versions of yet another CMA module, *HIV prevention and behavior change - the basics*, were produced in 2002 with the support of UNAIDS. They are specifically tailored to serve the needs of uniformed services personnel and their families at lower literacy levels and have been field tested in Burkina Faso (November 2002) and Namibia (March 2003). An eighth CMA training module is planned to sensitize military personnel to the special vulnerabilities and needs of women and children in peacetime and during complex humanitarian emergencies.

<sup>9</sup>Gould, loc. cit.

<sup>10</sup>Yeager, Hendrix, and Kingma, op. cit., pp. 88-90.

<sup>11</sup>Gould, op. cit., p. 49.

<sup>12</sup>Yeager, Hendrix, and Kingma, op. cit., p. 89.

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<sup>13</sup>See endnote 42, below. Nevertheless, there is an economic incentive for inserting African troops as UN peacekeepers into the HIV-rich environments of conflict and immediate post-conflict situations. African defense ministries tend to rely on the financial proceeds of UN peacekeeping missions, which are currently remitted at a monthly rate of about USD1,000 per peacekeeper. UN Department of Peacekeeping Operations (DPKO), 2002, available at [www.un.org/depts/dpko/ques.htm%23shortages](http://www.un.org/depts/dpko/ques.htm%23shortages).

<sup>14</sup>Yeager, Hendrix, and Kingma, op. cit., p. 91.

<sup>15</sup>In the U.S. armed forces, which practice mandatory screening and periodic testing, HIV incidence and prevalence were stabilized at low levels by the mid-1990s. At this time, a study of the U.S. Army estimated that the average test cost per soldier was only USD\$2.52, mainly because of the Army's advanced testing and analytical capabilities and its infrequent need for confirmatory testing requiring the comparatively expensive Western blot test. Brown, A.E., Brundage, J.F., Tomlinson, J.P. et al., 1996, "The U.S. Army HIV testing program: the first decade," *Military Medicine*, 161:117-22.

<sup>16</sup>Valdiserri, R.O., 1997, "HIV counseling and testing is evolving its role in HIV prevention," *AIDS Education and Prevention*, 9 (supplement 2):2-13.

<sup>17</sup>Yeager, Hendrix, and Kingma, op. cit., p. 89.

<sup>18</sup>Ibid., pp. 90-91. The data may suggest a mixture of altruism and a kind of desperate practicality, with many African militaries being unwilling to turn over sick soldiers to overburdened or nonexistent civilian care facilities and also lacking the recruitment and training resources to replace them.

<sup>19</sup>Ibid., p. 90.

<sup>20</sup>See Yeager, R., 2002, *HIV/AIDS: implications for development and security in Sub-Saharan Africa*. Rolle, Switzerland and Morgantown, WV: CMA, pp. 3-4, available at [www.certf.org/cma](http://www.certf.org/cma).

<sup>21</sup>Yeager, Hendrix, and Kingma, op. cit., p. 92. See also Aiken, L.H., Smith, H.L., and Lake, E.T., 1997, "Using existing health care systems to respond to the AIDS epidemic: research and recommendations for Chile," *International Journal of Health Services*, 27:177-99.

<sup>22</sup>See Leonard, L., 2001, *An external evaluation of activities, accomplished events, and achievements of the Civil-Military Alliance to Combat HIV and AIDS (CMA), January 1995-March 2001*. Conducted on behalf of the Ford Foundation. Annex 1. Rolle, Switzerland and Morgantown, WV: CMA, pp. 27-28.

<sup>23</sup>Yeager, R. and Kingma, S., 2001, "HIV/AIDS: destabilising national security and the multi-national response," *International Review of Armed Forces Medical Services*, 74:3-12, pp. 12-13, available at [www.certf.org/cma](http://www.certf.org/cma).

<sup>24</sup>See Yeager, R., ed., 1997, *Third African regional seminar on HIV/AIDS prevention in military populations, 2-7 March 1997, Windhoek, Namibia: proceedings*. Rolle, Switzerland and Morgantown, WV, CMA, pp. 11-12.

<sup>25</sup>Gould was among the first observers to note this elite hollowing-out phenomenon. Gould, op. cit., p. 83.

<sup>26</sup>Project Ploughshares 2000 estimate, available at [www.ploughshares.ca/CONTENT/ACR/AC00PrefaceIntroduction.html](http://www.ploughshares.ca/CONTENT/ACR/AC00PrefaceIntroduction.html).

<sup>27</sup>Ibid., available at [www.ploughshares.ca/imagesarticles/ACR00/map.armed.conflict.99.pdf](http://www.ploughshares.ca/imagesarticles/ACR00/map.armed.conflict.99.pdf).

<sup>28</sup>UNAIDS, 1998, *AIDS and the military*. UNAIDS Point of View. Geneva: UNAIDS.

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<sup>29</sup>It is said that, just before the D-Day invasion of Europe in June 1944, General Dwight D. Eisenhower commented to the effect that even the best-laid plans become obsolete after the first soldier has hit the beach.

<sup>30</sup>HIV's symptom-free period may be shorter in Africa and other impoverished regions, which may be deficient in food availability and nutritional quality, rich in other infectious diseases that also challenge the human immune system, and deprived of modern health-care systems. It is also possible that multiple reinfections may shorten the span of HIV's chronic period.

<sup>31</sup>DPKO and CMA, 2000, *Aide mémoires: policy guidelines on HIV/AIDS prevention and control for UN military planners and commanders*. Prepared by R. Yeager, CMA. New York: DPKO.

<sup>32</sup>*The Times of India News Service* and *The Times of India Cities: Pune*, October 28, 2002, cited in Gupta, R., 2002, *Communicable diseases, risky sex and alcohol and drug abuse in India: implications for health, development and security*. Los Alamos Report No. ALUR-02-5305. Los Alamos, NM: Los Alamos National Laboratory.

<sup>33</sup>*The Chronicle Newspaper*, Lilongwe, Malawi, June 12, 2001.

<sup>34</sup>Mudambo, Dr., 1999, "The effects of strenuous exercise on HIV positive individuals," unpublished paper.

<sup>35</sup>Adefolalu, A., 1999, "HIV/AIDS as an occupational hazard to soldiers - ECOMOG experience," paper presented at the 3<sup>rd</sup> All Africa Congress of Armed Forces and Police Medical Services, Pretoria, South Africa, October 1999. See also, Yeager, R., and Kingma, S., 2000, "A civil-military response to the HIV/AIDS epidemic in Nigeria," paper prepared for the U.S. Agency for International Development (USAID)/Washington. Rolle, Switzerland and Morgantown, WV: CMA.

<sup>36</sup>Population Data Unit, PGDS/DOS, UNHCR, Geneva, June 2002, available at [www.unhcr.ch/](http://www.unhcr.ch/). At Uganda's 3<sup>rd</sup> National AIDS Conference, an HIV/AIDS focal officer with the UNHCR reported that women and girls in IDP camps consider soldiers to be their only source of livelihood. She also commented that "young girls have formed a mobile unit, which usually follows soldiers wherever they are deployed." Kulubya, S.C., 2002, *The Monitor*, Kampala, Uganda, October 29, 2002.

<sup>37</sup>Price-Smith, A.T., 2002, *Pretoria's shadow: the HIV/AIDS pandemic and national security in South Africa*. Health and Security Series, Special Report. Washington: Chemical and Biological Arms Control Institute (CBACI), p. 22.

<sup>38</sup>Mills, G., 2000, "AIDS and the South African military: timeworn cliché or timebomb?" in Lange, M., ed., 2000, *HIV/AIDS: a threat to the African renaissance?* Bonn: Konrad Adenauer Foundation Occasional Paper, p. 71.

<sup>39</sup>UN Security Council, press release SC/6781, New York, January 10, 2000.

<sup>40</sup>In Africa and Asia, UN peacekeeping, observer, as support missions are currently deployed in the Central African Republic (MINURCA), Côte d'Ivoire (MINUCI), Ethiopia/Eritrea (UNMEE), Democratic Republic of Congo (MONUC), Sierra Leone (UNAMSIL), Western Sahara (MINURSO), East Timor (UNMISET), and India/Pakistan (UNMOGIP). [www.un.org/Depts/dpko/dpko/home.shtml](http://www.un.org/Depts/dpko/dpko/home.shtml).

<sup>41</sup>UN Security Council, 2000, *UN Security Council resolution 1308 (2000) on the responsibility of the Security Council in the maintenance of international peacekeeping and security: HIV/AIDS and international peace-keeping operations*, available at [www.un.org/docs/scinfo.htm](http://www.un.org/docs/scinfo.htm) and [www.reliefweb.int](http://www.reliefweb.int). From a recent investigation of the UNAMSIL peacekeeping mission to Sierra Leone, Bazergan produced important findings and recommendations in this regard. Bazergan, R., 2002, *HIV/AIDS & peacekeeping: a field study of the policies of the United Nations Mission in Sierra Leone*. London: The International Policy

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Institute, King's College London, University of London. See also Bazergan, R., 2003, "Intervention and intercourse: HIV/AIDS and peacekeepers," *Conflict, Security and Development*, 3:28-51.

<sup>42</sup>Herein lies a true impasse. DPKO policy guidelines strongly suggest that HIV-positive troops should not be deployed on peacekeeping missions, and stipulate that AIDS-symptomatic troops must not be deployed. Lacking the means to fulfill this mandate (and in spite of demands from the United States and host countries that UN peacekeepers must be HIV-negative), the DPKO "has been less restrictive in the application of these guidelines" and indeed, "information regarding HIV-positive individuals deployed has never been requested or volunteered on any mission . . ." Bazergan, *HIV and peacekeeping*, op. cit., p. 14.

<sup>43</sup>CIA, 2000, *The global infectious disease threat and its implications for the United States*. NIE 99-17D. Washington: NIC.

<sup>44</sup>DCI Strategic Warning Committee, op. cit., and Schneider and Moodie, op. cit.

<sup>45</sup>Price-Smith, loc. cit.

<sup>46</sup> Mendelson Forman, J. and Carballo, M., 2002, "A policy critique of HIV/AIDS and demobilisation," *Conflict, Security and Development*, 1:73-92, p. 79. Focusing on Ethiopia, the CIA's most recent estimate on the security implications of HIV/AIDS supports this conclusion:

"unlike conditions in other next-wave countries, war has significantly contributed to the spread of the disease in Ethiopia. Many soldiers contracted HIV/AIDS during the civil war in the 1980s by having contact with multiple sex partners. When the war ended in 1991, thousands of infected soldiers and prostitutes returned home, spreading HIV/AIDS to their villages and towns.

" • Another surge of infections may be underway. Ethiopia has demobilized 15,000 soldiers over the last two years as the conflict with Eritrea has wound down. More troops will be sent home as the border dispute is settled.

" • As soldiers demobilize, prostitutes - who have even higher rates of infection - will disperse around the country as well.

"Looking ahead, we expect 7 to 10 million Ethiopians [up from a December 2001UNAIDS estimate of 2.1million] probably will be infected by 2010 because of the high current rate of adult prevalence, widespread poverty, low educational levels, and the government's limited capacity to respond more actively."

DCI Strategic Warning Committee, op. cit., p. 11.

<sup>47</sup>Mendelson Forman and Carballo, op. cit., p. 85.

<sup>48</sup> See Yeager and Kingma, 2000, op. cit.

<sup>49</sup>Mendelson Forman and Carballo, op. cit., p. 83.

<sup>50</sup>World Bank Group, news release 2000/172/S, Washington, January 10, 2000.