Prompt and supportive action – regional health

Contents

1 Key issues 52

2 Living our values 52

3 Our scorecard 53

4 Review 2006 53

5 Case studies 62

6 Objectives 2007 63

1. Key issues

2. Living our values

Inherent in our core values and business principles is a commitment on the part of AngloGold Ashanti as an employer to ease the burden for employees in the face of debilitating regional health threats. In various ways, this commitment leads the company also to address these issues in the communities in which it operates.

A core value of AngloGold Ashanti relates to the health of employees, namely:

'Every manager and every employee takes responsibility for health … and together strive to create workplaces that are free from … illness'.

In particular, AngloGold Ashanti's regional health management practices and policies are guided by the group's business principle, 'AngloGold Ashanti as an employer – labour practices', the last point of which is relevant to regional health threats, namely

'We are committed to prompt and supportive action in response to any major health threats in the regions in which we operate.'

3. Our scorecard

The following objectives were set regarding regional health threats for 2006 in our Report to Society 2005, and we report on the corresponding progress below.

Objectives for 2006	Performance in 2006
HIV/AIDS	
Minimise the risk of HIV/AIDS by ensuring that all AngloGold Ashanti operations susceptible to the risk of HIV/AIDS adhere to best practice.	Adherence to best practice was monitored during the course of the year to ensure that business units complied with guidelines. Workplace HIV/AIDS programmes at AngloGold Ashanti operations in South Africa compare favourably with the Technical Assistance Guidelines on HIV in the Workplace as supplied by the Department of Labour.
Reduce rate of new infections by increasing the focus on prevention initiatives, increasing VCT uptake to 40% of employees and increasing the ratio of peer educators to employees to 1:60.	In South Africa VCT attendance data for the year of 75% of the employee base was well in excess of target. The peer educator: employee ratio for the year was 1:59.
Efficiently manage those infected by HIV/AIDS by increasing the number of wellness clinic patients by 40% and the number of patients on ART by 40%.	In South Africa the number of wellness patients increased by 39% to 4,513 and the number of patients on ART by 57% to 1,467.
Consolidate the provision of supportive care to company's ill-health retired employees as well as to communities in which AngloGold Ashanti operates.	Palliative and home-based care is provided to ill-health retired employees in partnership with community-based organisations at the mining operations and the major labour-sending areas of southern Africa.
Malaria	
Complete baseline study at Siguiri in Guinea	Programme to be implemented during the course of 2007.
Implement integrated campaign at Geita in Tanzania.	Programme to be implemented during the course of 2007.
Implement integrated campaign at Obuasi in Ghana. A 50% decrease in incidence and absenteeism is being targetted.	Implementation of a malaria programme at Obuasi began in April 2006. There has been a decline of 50% in the incidence rate of malaria and a significant decline in the rate of absenteeism due to malaria.

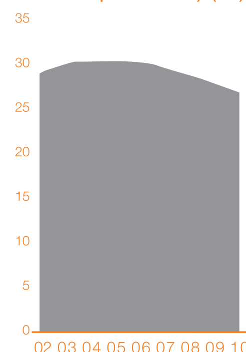
4. Review 2006

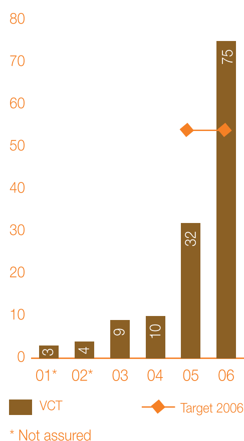
We report on our performance in 2006 against the relevant business principle.

Business principle: We are committed to prompt and supportive action in response to any major health threats in the regions in which we operate.

The major public health threats facing AngloGold Ashanti operations – HIV/AIDS and malaria – are found principally at our African operations. HIV/AIDS poses the biggest challenge at our operations

HIV prevalence rate projections (South Africa operations) (%)





in South Africa, but is also a concern in Namibia and Tanzania, where prevalence levels are higher than at our west and central African operations in Ghana, Guinea and Mali.

Malaria represents a significant risk at the west and central Africa operations in Ghana, Guinea, Mali and Tanzania.

In Guinea, where cholera is endemic, a campaign is being implemented to overcome the disease at AngloGold Ashanti's operation there.

HIV/AIDS

South Africa

Although an accurate survey of prevalence levels cannot be conducted, it is estimated that prevalence levels of HIV/AIDS have remained stable at around 30% of the workforce in recent years at the South African operations (2005: 30.0%; 2004: 30.24%). These estimates are based on best available information that includes regional antenatal data and extrapolations from comparable reference groups. The provision of anti-retroviral therapy (ART) – which was introduced in November 2002 – will, over time, logically lead to a higher prevalence rate than would otherwise be the case as infected individuals live longer than they would without ART.

AngloGold Ashanti HIV/AIDS programme

The overall aims of the HIV/AIDS programme are to prevent the spread of infection, to care for those infected or affected by the disease and to provide support to both employees and communities. The programme, which is an integral part of the 'wellness in the workplace' initiative under way at the South African operations, aims to reduce the number of new infections and efficiently manage those already infected. *(See Occupational health and safety section on page 34).*

In 2006, the focus remained on the continued implementation of the programme. There was some measure of success and there is an indication that most employees have a clearer understanding of the structure and purpose of the HIV and AIDS programme. The programme model used in the South African operations has been effective in its simplicity in empowering individuals to make the decision to find out about their HIV status.

Each business unit participates in the prevention programme and various VCT initiatives, and now has its own workplace HIV/AIDS programme which it runs and manages. Technical support is provided by AngloGold Ashanti Health and the treatment programmes, including ART, are managed by the health service.

Prevention: Although a key aspect of this is VCT, it also includes induction training, peer education, awareness campaigns, information feedback sessions to the business units, condom distribution and the treatment of sexually transmitted infections (STIs).

The most notable achievement of 2006 was the increase in the uptake of VCT. In 2006, 23,389 encounters were recorded at VCT centres which, assuming single annual testing, is equivalent to 75% of the South African employee base. This was an increase of 129% on the 10,219 encounters recorded in 2005, and exceeded the target of 40% set for the year. Given the total anonymity of the administrative system, there is no way of monitoring repeat visits. However, indications of repeat visits are low.

While employees are encouraged to attend VCT once a year, those who attend VCT and whose sexual behaviour is considered to be high risk are encouraged to attend more frequently. The 2006 data compares with VCT rates of 32.4% and 10% in 2005 and 2004 respectively. Of those who underwent VCT, 79% were HIV-negative and 21% HIV-positive. The reluctance to be tested by those at higher risk of being HIV-positive is problematic and may explain why the rate of those testing positive is less than the estimated overall prevalence rate. *(See case study – VCT, key to success of HIV/AIDS programme, page 134 and an example of this programme in practice in the case study: VCT programme at TauTona – www.aga-reports.com/06.)*

In all, 265 peer educators were trained in 2006, bringing the total trained over the past two years to 530. This gives a ratio of one peer educator for every 59 employees (compared with 1:115 last year), and compares favourably with the target set for the year of 1:60. The peer education programme is aimed primarily at promoting awareness of HIV, including knowledge of HIV status, and lifestyle and behaviour change.

Condom distribution continued and close on 1.2 million male condoms were distributed during the year (2005: 520,000). Female condoms are now available for distribution at all AngloGold Ashanti operations in South Africa.

A new VCT centre was opened at the West Wits satellite training centre in Carletonville on 1 October 2006. Initially operated on a part-time basis, its services will be available on a full-time basis as from the first quarter of 2007.

Treatment: Corresponding with the increased uptake of VCT, there was an increase in attendance at the wellness clinics and in enrolment for anti-retroviral therapy (ART). A total of 4,513 patients were registered on the wellness programme as at the end of December 2006, with 1,467 (33%) of these on ART. Altogether 1,252 employees enrolled for the first time at the wellness clinic during 2006, and 617 new patients began ART during the year. This compares with new enrolment at wellness clinics of 1,267 and 630 on ART in 2005.

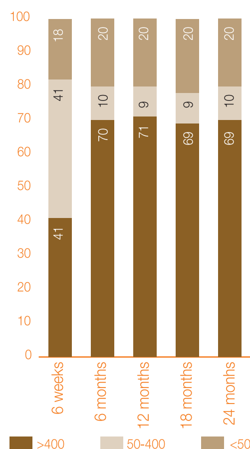
The number of new patients who started ART in 2006 (expressed as a rate per 1,000 employees at the South African operations) has remained stable year-on-year. The cumulative number of

employees registered at wellness clinics as at the end of 2006 was 4,513, or 15% of all employees, and the cumulative number of employees maintained on ART was 1,467 or 5%.

Records show that 66% of patients who begin ART remain on treatment. The most frequently-cited reasons given by those who do not remain on treatment are non-adherence to treatment regimes (about a third) and employees leaving the company (another third); the remaining third cease treatment for a variety of reasons including death. AngloGold Ashanti Health provides three months of ART to employees who leave the company, and who could benefit from ART, and endeavours to facilitate the referral of individual patients to a government clinic in their community for ongoing treatment, care and support. The number of employees leaving the company may seem disproportionately high but this has been significantly influenced by the down-sizing at the operations during the year. Reasons for leaving include retirements, retrenchments, resignations, dismissals, and ill-health retirements.

The prognosis for those on ART remains good and monitoring of their progress indicates that viral suppression rates are being controlled by ART. 80% of those on ART have viral loads of less than 400 after six months of treatment and these viral suppression rates are maintained after two years on treatment. In addition, once ART has begun, the CD4 count rises steadily from a mean of 167 to a mean of 373 after two years of treatment. Some 80% of patients attending wellness clinics have been declared fit for work by their attending clinician.

Viral load response on ART



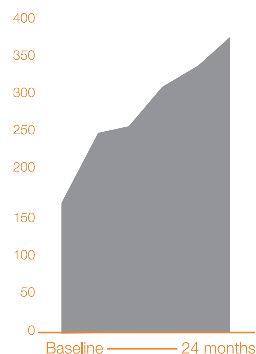
The total cost of providing ART is R1,290 per patient per month. This includes monthly drug costs of R470 per patient. *(See box on the Economic impact of HIV/AIDS on the South African operations on page 136)*

Provisional results from research being conducted into the economic costs of the HIV/AIDS epidemic indicate that absenteeism has declined significantly with the provision of ART from a mean sick leave rate of seven days per month for employees starting ART, to two days per month after one year on ART. There has also been a similar decline in the use of health care facilities for the majority of those on ART.

With the increase in the participation of VCT and attendance at wellness clinics, there has been an increased workload at clinics. AngloGold Ashanti Health has budgeted to employ five additional members of staff in 2007 – three in the Vaal River region and two in the West Wits region.

Assuming an ideal annual VCT testing rate of 100% of employees, and an HIV/AIDS prevalence rate of 30%, and assuming that 25% of HIV-positive employees require ART, then the actual proportion of employees reached versus expected is 75% for VCT, 50% for the wellness clinic and 63% for ART.

Improvements in CD4 count on ART



Support: In terms of support, the focus is on providing palliative and home-based care for the AIDS-ill who retire from AngloGold Ashanti's employment. This support extends to families and includes counselling and support groups, assistance with home-based palliative care and, where appropriate, the care of orphans in households headed by children or grandparents.

AngloGold Ashanti has formed partnerships with several home-based care programmes in the areas around its operations in South Africa. For example, the Carletonville Home-based Care Programme has 530 people enrolled in support groups, 90 patients receive palliative care and 513 orphans in households headed by children or grandparents are being cared for. Furthermore, a total of 126 former employees receive care from Teba Home-Based Care which is supported by AngloGold Ashanti and other mining companies operating in southern Africa.

The death rate of employees in service at the four largest business units at the South African operations has been declining over the past three years. There has also been a decline in medical absenteeism amongst those on ART. A key contribution to these declines has been the increased uptake of ART.

Expenditure related to the chronic disease management of HIV-infected employees (including the provision of ART), VCT, home-based care for terminally ill ex-employees, and certain programme-related research, monitoring and evaluation, amounted to R21.5 million in 2006 (2005: R16.45 million). This included R2.6 million which the AngloGold Ashanti Fund contributed to HIV/AIDS-related community projects.

HIV/AIDS at other African operations

Although the prevalence levels of HIV/AIDS are not as high at our other African operations as in South Africa, the disease does have an impact on employees and their communities. HIV/AIDS-related programmes are in place at operations in Ghana, Guinea, Mali, Namibia and Tanzania, to contain and lessen the impact of the disease. The management of HIV/AIDS differs from country to country and depends on the respective prevalence levels.

Ghana: An HIV/AIDS policy was developed under the auspices of the Ghana Employers' Association and the National AIDS Commission in Ghana. According to the commission, the national prevalence rate was 3.1% in 2004 and 2.6% in 2005 (Sentinel Survey 2005) which is similar to those levels prevailing in the region of Iduapriem (2.7%) and of Obuasi (2.8%).

While there is no formal VCT centre at Iduapriem, the mine clinic is equipped to undertake VCT. Iduapriem, Ghana Goldfields Limited and the Ministry of Health collectively launched a VCT centre at a local government hospital on 18 January 2007. As part of the mine's HIV/AIDS programme, condoms are distributed with pay slips. AIDS-related death declined significantly in 2006.

Guinea: A national HIV/AIDS Committee oversees work done by individual companies, national organisations and NGOs. At the Siguiri mine, the Comité SIDA Entreprise SAG, a committee comprising members of management, the union and local authorities, has developed an action plan for the management of HIV/AIDS. The national prevalence level is estimated at 3%.

Mali: The national incidence of HIV/AIDS is relatively low at 3.5%. The state manages HIV/AIDS and patients are attended to at state hospitals which also provide ART if necessary. Known cases of HIV/AIDS at Sadiola make up 1.2% of employees. Four peer educators are provided by a local NGO.

An HIV/AIDS policy is in place at Morila to address the needs of employees and their dependants. Although VCT is not offered, condoms are available with 53,020 male condoms and 2,520 female condoms having been distributed during 2006. In 2005, the programme at the mine included the recruitment of a community health educator, the provision of HIV testing kits, community peer educator training and specific awareness events (such as World AIDS day), condom distribution and training. The mine employs 18 peer educators, to give a ratio of 1:88.

Namibia: Although HIV/AIDS prevalence levels in Namibia are similar to those in South Africa, the prevalence level among employees at Navachab mine is estimated to be far lower – at about 8%. However, most of the workforce is young and at risk of contracting HIV/AIDS. An on-site clinic conducts an integrated HIV/AIDS management campaign and provides both voluntary counselling and testing, and anti-retroviral therapy. In 2006, 34 employees underwent VCT (2005: 17) and a cumulative total of five employees were on ART. A wellness committee with representatives from management, peer educators and the union is to be established in 2007.

Tanzania: According to the Tanzanian Commission for AIDS (TACAIDS), the national HIV prevalence in Tanzania is estimated to be 6.5%; in the Mwanza region where Geita is located, prevalence rates are estimated to be higher, at 15% to 20%. Geita and the African Medical and Research Foundation (AMREF) have joined forces to provide HIV and STI prevention and management programmes to both mine employees and the community. Data gathered at the AMREF VCT centre in Geita indicate that the overall HIV prevalence of attendees is 12.4%, with that of women being 19.6%, the community at large, 12.8%, and mineworkers, 6.5%. A total of 2,283 HIV tests were conducted (2005: 2,186) and 123 of those who attended VCT were mineworkers.

AMREF's budget for 2006 was $100,000, which covered education campaigns, the provision of sexual health services, HIV test kits and care and support of those infected with HIV. The total cost of providing VCT and other sexual and reproductive health services was around $40,000. The planned budget for 2007 is $144,207.

Peer educators at the mine conducted 120 formal sessions during the year and reached 2,777 people; an additional 1,211 were reached informally. Plans are under way to increase the number of peer educators so that the ratio to employees increases to 1:100, in line with AngloGold Ashanti's group recommendation.

At Geita, 10 people are currently receiving ART and a local non-government organisation, GDH, was awarded a grant of Tsh250 million from USAID in December 2005 for the expansion of HIV/AIDS care and treatment provided, to improve the infrastructure and to improve the provision of care given to those living with AIDS.

The annual Geita Kilimanjaro climb attracted 51 people and $260,000 was raised for HIV/AIDS projects in Tanzania. *(See case studies Report to Society 2003, Climbing Kilimanjaro – an AIDS initiative, and Report to Society 2005, Caring for orphans and orphanages.)*

Malaria

Malaria remains a significant risk for the operations in Ghana, Guinea, Mali and Tanzania. Despite the active intervention of international NGOs, the disease has assumed epidemic proportions in these countries, largely a result of ineffective national control measures. The disease is a major cause of death in young children and pregnant women, and also gives rise to morbidity and absenteeism in adult men.

AngloGold Ashanti is in the process of implementing integrated malaria control programmes at each of the operations in these countries. Such a programme comprises:

- vector control, which involves mosquito identification and insecticide susceptibility tests, as well as indoor residual house spraying, house screening and the provision of insecticide impregnated bed nets (ITNs);
- larvaciding of both temporary and permanent water bodies in which mosquito breeding is likely to occur;
- disease management, which relates to effective diagnosis and treatment;
- surveillance and monitoring of both the vectors and parasites (for drug resistance) and the compilation of accurate records; and
- information, education, communication (IEC) and health promotion. A set of indicators has been developed to monitor the disease and its effects on local communities and the AngloGold Ashanti workforce and also to establish baselines against which the outcomes of regional malaria control programmes can be assessed.

The malaria lost-time injury frequency rate (MLTIFR), expressed as the number of cases (incidents) due to malaria for every million man-hours worked, allows the rate to be compared with the conventional LTIFR and clearly demonstrates the negative impact malaria has on productivity and health in the workforce. Malaria incidence rates are expressed as a percentage of employees affected by malaria in a given period. Because of seasonal changes in malaria incidence, this is usually reported as a quarterly rate.

Ghana: The incidence of malaria and the MLTIFR in 2006 have declined significantly to below 50% of 2005 rates. Implementation of the integrated malaria programme at Obuasi. (*See case study on page 122: Successful implementation of campaign at Obuasi halves malaria incidence rates*) began during the course of 2006 and includes the main features of the vector control programme as discussed above.

A malaria control centre has been established at Sansu, a suburb in the town of Obuasi, to serve as the headquarters for the Obuasi programme and as a training centre for group malarial projects being run at other AngloGold Ashanti mines and for other companies operating in Ghana. The control centre will also function as a satellite research centre and will be equipped with the necessary supporting infrastructure. The insectary is operational and satellite mosquito stations have been established. AngloGold Ashanti is sponsoring the resident entomologist's doctoral studies at the University of the Witwatersrand in South Africa.

As the success of this campaign, which is a partnership with the community, depends on its acceptance by the community, presentations have been made to a range of stakeholders and interested parties. Around 150 community malaria advocates have been appointed to educate people on how the environment can be changed to prevent the breeding and harbouring of mosquitoes. These advocates will also assist in communicating with communities during periods of indoor residual spraying.

Use was also made of media, local radio stations, banners and leaflets to communicate with the community. Support for the programme was also received from local agencies and the local director of health. In addition, the official launch of the programme was attended by the President of Ghana and the King of the Ashanti. A presentation on Obuasi's malaria programme was made to the Ghana Chamber of Mines.

The programme began with the training of spray teams and led to the creation of 125 additional jobs – including spray team supervisors – who, after stringent selection, have undergone extensive training. All positions created were filled by people from the local communities and villages.

Residual indoor house spraying began in April 2006 (spraying is to take place twice a year) and 134,000 structures were sprayed in the first round, of which 27,000 were dwellings; another 34,000 houses were sprayed in the second round which was completed in December 2006. The insecticide being used for spraying is approved by the World Health Organization (WHO).

The choice of an organophosphate insecticide for residual house spraying at Obuasi was based on entomological baseline studies performed by the National Institute for Communicable Diseases, based in Johannesburg, which showed significant resistance by resident mosquitoes to the standard insecticides recommended by WHO for malaria control, with the exception of the organophosphate group. These insecticides are expensive, difficult to apply and are potentially toxic to spraymen in high concentrations. For this reason a code of practice was developed to ensure that adequate medical surveillance was carried out on this group of employees. During 2006, two rounds of house spraying were completed using organophosphates and during 2007 house spraying will continue use standard pyrethroid insecticides. As part of this programme, around 6,000 nets were also purchased and distributed to high-risk areas such as orphanages, maternity clinics, and children and maternity wards at hospitals.

The Noguchi Institute at the University of Ghana completed a baseline study on parasite prevalence study at Obuasi, the results of which will be used to measure the success of the spray campaign.

At Iduapriem, there has been a decrease in the incidence of malaria from 11.1% to 8.6%.

MLTIFR at the Ghana operations:

	Obuasi	Iduapriem
2006	435	388
2005	1,477	416

Guinea: A malaria entomological audit was recently undertaken at Siguiri in Guinea, and an appropriate programme is being developed to combat the disease. The MLTIFR at this operation was 379 in the third quarter of 2006. Continued health education and the provision of clean water at the mine are being used in the fight against cholera.

Mali: Management of malaria at Morila is based on information obtained from WHO and the use of external consultants. There has been a sharp decline in the incidence of cases of malaria in 2006 to 103 from 314 in 2005, largely attributable to the twice-yearly spraying of houses and the annual re-impregnation of mosquito nets with insecticide. This is an incidence of 1.2%. The actual cost for the year of the vector programme at Sadiola was $90,365 (excluding treatment costs). The programme includes the following:

- provision of malaria prophylaxis by medical centres to all expatriate employees;
- spraying with a residual insecticide of all employee houses and the houses in villages housing mine employees;
- annual re-impregnation with insecticide of all mosquito nets of employees and their dependants as well as those of residents in villages housing employees; and
- treatment by staff at the medical centres of all cases of malaria diagnosed in employees and their dependants.

MLTIFR at the Mali operations:

	Sadiola/Yatela	Morila
2006	46	66
2005	51	138

At Morila, there has been a marked improvement following the introduction of a new insecticide. The number of malaria cases declined from 425 in 2005 to 329 in 2006. The overall strategy here emphasises the use of prophylaxis by expatriates, information leaflets and an effective drug regimen. A two-year drug resistance study is currently under way on the use of pyrethroids and indications are that this is proving very effective. Integrated malaria control programmes have been successfully implemented at Sadiola, Yatela and Morila, and malaria incidence rates at these operations have declined over time.

Tanzania: The reported incidence of malaria at Geita during 2006 was 10.5%, which compares with 7.3% in 2005. Insecticide treated nets were distributed to employees and the community during the year, and a campaign for early and effective treatment using reliable anti-malarial medication was begun. This is in line with the national malaria policy in Tanzania. An integrated programme of malaria control, similar in content to that being conducted at Obuasi, and involving the mine concession area as well as Geita Town, has been developed and approved for implementation during 2007.

MLTIFR at the Tanzania operation:

	Geita
2006	308
2005	194

Other principal health risks

Other regional health risks include cholera in Guinea *(See case study in Report to Society 2005, Anti cholera campaign at Siguiri benefits communities, page RH18)*, and a potential outbreak of avian flu *(See case study on our website (www.aga-reports.com/06/avian-flu.htm) on AngloGold Ashanti establishes avian flu task force).*

5. Case studies

Two areas in which significant progress was made during 2006 are presented as case studies in this document:

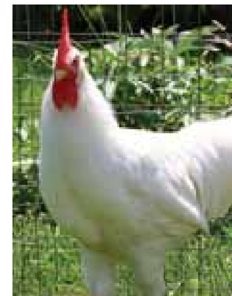
- the promotion of voluntary counselling and testing (VCT) in South Africa and the economic cost of AIDS. *(See case study on page 134)*; *and*
- the implementation of an integrated malaria campaign at Obuasi in Ghana. *(See page 122).*

Other case studies related to regional health threats that appear on our website are summarised as follows:

VCT programme at TauTona

Voluntary Counselling and Testing (VCT) clinic attendance at TauTona was 4,848 in 2006, more than double the target. TauTona now has the highest number of employees receiving anti-retroviral therapy (ART). A three-phase approach has been developed to control the spread of HIV/AIDS among employees at TauTona. However, many misconceptions and misunderstandings still exist, and the need for education and maintaining awareness remains. *(See our website for the case study at www.aga-reports.com/06/VCT-TauTona.htm)*.

AngloGold Ashanti establishes avian flu task force



An avian flu task force has been established to develop and implement a strategy in preparation for a possible avian flu epidemic, which according to the World Health Organization, currently poses the single biggest global health threat at present. While this threat is real, its consequences are currently difficult to quantify. PWC has assisted the avian flu task group in formalising an Avian Flu Business Continuity Management process, initially for the South African operations, to ensure the orderly conduct of operations in the event of such a crisis. *(See case study at www.aga-reports.com/06/avian-flu.htm).*

6. Objectives 2007

The following key objectives have been set for 2007:

HIV/AIDS

In South Africa:

- to achieve VCT uptake of 60% at all business units;
- to achieve a rate of 1 per educator to 50 employees;
- to increase the number of Wellness Clinic patients by 25%; and
- to increase the number of patients on ART by 25%.

Malaria

- implement integrated malaria control programme at Geita;
- obtain approval for funding of control programmes at Siguiri and Iduapriem; and
- achieve a further reduction in malaria incidence of 25% at Obuasi and achieve community parasite prevalence of less than 50% in all samples.

Campaign at Obuasi halves malaria incidence

In January 2006 AngloGold Ashanti put into practice an integrated malaria control programme in Obuasi and the outlying areas within the Obuasi Municipal Assembly area, with the aim of halving malaria incidence over the next two years. To maximise successful outcomes, the plan included multiple intervention methods to prevent the transmission of malaria and to effectively treat those already infected.

This campaign, first reported in the Report to Society 2004 *(See case study: A scientific approach to malaria control at Obuasi)* was originally scheduled to start at the beginning of 2005 but was postponed until 2006 to allow for better planning and understanding of the exact needs of the community.

In 2005, the Obuasi municipal area had an estimated average of 11,000 malaria cases per month according to the local Obuasi health authority, with an additional 6,800 of these cases receiving treatment at Obuasi Mine's Edwin Cade Memorial Hospital. Of the cases reported at Edwin Cade, 2,400 were employees or contractors and the balance (4,400) were dependants of the gold mine. The cost to the company of malaria includes treatment costs, absenteeism and loss of productivity. Malaria also presents a significant burden to the community, both social and economic.

The key elements of the integrated malaria control programme for Obuasi are:

- **Vector control:** Indoor residual spraying of over 134,000 structures in the Obuasi municipality, mine and surrounding villages was coupled with the distribution of long lasting insecticide-treated bed nets to places most susceptible to infection, such as orphanages, maternity and children's wards. Additionally, temporary and permanent water bodies where mosquitoes breed are being treated with larvicide.
- **Effective disease management:** Standard treatment protocols for rapid and early detection and diagnosis of malaria are in place at the hospital and health facilities of the Obuasi Mine Medical Services. The use of drug treatment regimens aligned with the Ghanaian National

Treatment Protocol, and which includes the mandatory use of the new Artesunate drugs, has improved cure rates. AngloGold Ashanti has put in place measures to monitor the diagnosis and treatment of malaria for consistency and effectiveness.

- **Surveillance** and monitoring: A comprehensive malaria information system was installed to monitor and evaluate the programme for consistent high performance according to World Health Organization standards.
- **Information**, education and communication: Volunteer community advocates have been trained to present health information on malaria symptoms, prevention and treatment and to dispense educational material in the form of pamphlets and posters.

The programme has elicited active engagement from the community with educational campaigns being disseminated by community committees, radio and other relevant media to inform the public of the symptoms and treatment of malaria. A spin-off of the programme is the creation of 127 permanent jobs, in the form of spray operators, who have received intensive training on the techniques of indoor residual spraying.

A malaria control centre was opened in April 2006 by the President of Ghana, John Kufuor, and AngloGold Ashanti's Chief Executive Officer, Bobby Godsell, in the Sansu area at Obuasi. Although primarily the headquarters for the Obuasi programme, it also serves as a training centre for AngloGold Ashanti's malaria projects at other mines. With key capabilities such as an insectary and laboratory, a planning and strategy centre and training facilities it will be a valuable asset for Ghana and Africa in the fight against malaria. It will also be used as a satellite research centre by the Noguchi Memorial Institute for Medical Research at the University of Ghana, government departments and other agencies.

The first round of the indoor residual spraying was completed in April 2006 in the town, including both mine community infrastructure and surrounding villages with 134,000 structures sprayed. Of these, approximately 27,000 were dwellings. The second round of spraying started in September. By November AngloGold Ashanti achieved a 50% reduction in malaria cases seen at the Edwin Cade Memorial Hospital.

VCT, key to success of HIV/AIDS programme

Encouraging and promoting attendance at voluntary counselling and testing (VCT) centres is a vital aspect of AngloGold Ashanti's HIV/AIDS programme, which aims to prevent the spread of infection, to care for those infected or affected by HIV/AIDS and to provide outreach and support to the community. In order to do this effectively, it is vital that people know their HIV/AIDS status – hence the importance of testing for infection with the virus. For those who test negative, the counselling is aimed at helping them ensure that they maintain this status; for those who test positive, it is intended to assist them to cope with the disease in the best way possible so as to ensure that the effect on their quality of life is minimised. It is important that programmes are established which overcome public resistance to testing, since only once a person knows his or her status can they make informed decisions about their behaviour.

AIDS

Frequently employees approach the clinics only once they are AIDS-ill with AIDS-related conditions when it may be too late to begin effective treatment. To counter this, it is important that employees attend VCT centres, learn their status and understand how either to prevent themselves from contracting HIV/AIDS in the future or how to deal with the disease should they test positive.

In particular during 2006, a campaign entitled 'SAVE lives' was run to encourage VCT attendance. The 'SAVE lives' message was central to the prevention programme.

A result of this increased focus was a significant increase in uptake of VCT. In 2006, 23,389 encounters were recorded which, assuming a single annual test per person attending, is equivalent to 75% of the South African employee base. This was an increase of 129% on the 10,219 encounters recorded in 2005, and exceeded the target of 40% set for the year. The 2006 figure compares with VCT rates of 32.4% and 10% in 2005 and 2004 respectively.

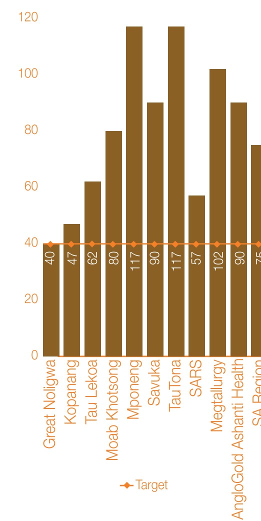
S = safe sex

A = access to care

V = voluntary counselling and testing

E = education

VCT 2006:
Assume single annual testing
% uptake



VCT, key to success of HIV/AIDS programme cont.

Economic impact of HIV/AIDS on the South Africa operations

Given the potential for far-reaching economic effects of HIV/AIDS on the company, and in order to plan adequately for future preventative and therapeutic measures, AngloGold Ashanti recognises the importance of quantifying the economic impact of HIV/AIDS as far as this is possible.

Total expenditure on the AngloGold Ashanti HIV/AIDS programme in 2006 amounted to R21.5 million (R19.4 million in 2005) or R694 per employee in the South African operations. This total cost (which amounts to 1.2% of basic pay – or in production terms, $1.24/oz – is broken down as follows:

- prevention programme – R1.1 million
- treatment programme (including the provision of VCT and ART) – R16.63 million
- support programme – R3.8 million

The total direct financial costs to the company include the cost of the entire HIV/AIDS programme (i.e. prevention, treatment, support) as well as the cost of treating the side-effects of medication and the cost of treating opportunistic infections to which people may succumb as a result of having HIV/AIDS.

The economic impact of HIV/AIDS on the company, however, is far more complex than simply taking into account the financial expenditure incurred. The Aurum Institute for Health Research, of which AngloGold Ashanti was the founder and remains a substantial funder, has made significant progress through its Health Economics and Systems Research Programme in data analysis and model building to determine the full economic impact of HIV on AngloGold Ashanti and to estimate the cost and savings associated with having in place a comprehensive programme that includes the provision of ART to HIV-positive employees, in order to combat HIV/AIDS.

This programme of work, begun in 2003, has included the estimation of the potential economic impact of untreated HIV/AIDS on AngloGold Ashanti as part of an independent Anglo American

VCT, key to success of HIV/AIDS programme cont.

group-wide assessment funded by GlaxoSmithKline and undertaken by Aurum. This study indicated that the economic impact of HIV to AngloGold Ashanti would continue to rise from 2003 (that is the potential impact of not undertaking treatment and support) and would reach 6% of payroll in 2006. The greatest impacts lie in medical care (47%) and absenteeism (36%).

Early indications from the Aurum research programme suggest that in the medium term, the provision of ART to HIV-positive employees has had cost benefits for AngloGold Ashanti. These benefits include a decrease of more than 50% in deaths in service, a decline in hospital admissions in excess of 70% as well as a decrease in medical absenteeism and, consequently, a fall in the number of lost shifts. These statistics are limited to those on the ART programme and do not represent global statistics for the South African operations.

Initial indications are thus that the 'savings' resulting from the provision of ART outweigh the overall cost of the programme over a two- to three-year period. The costs of providing AngloGold Ashanti's HIV/AIDS programme include:

- A comprehensive cost per employee on ART per month of R1,290 declining over the four-year implementation period as a result of a decline in drug and laboratory costs and gaining economies of scale in treatment delivery. At the start of the programme this cost was about R2,000 per employee per month;
- VCT costs of R56 per employee tested; and
- Wellness clinics cost R280 per patient per month on the programme including the provision of prophylaxis against opportunistic infection and ongoing counselling.

There has been a significant increase in VCT uptake, with a resulting increase in patients attending the wellness clinics (almost 40% increase in 2006) and patients taking ART (57% increase in 2006). Nevertheless efforts to mitigate the economic impact of HIV are constrained by the still relatively low uptake of ART on the part of employees, their reluctance to be tested (although this has improved significantly – by 129% – over the past year) and late presentation for treatment. The more recent increase in VCT uptake is encouraging and has resulted in an increase in patients attending wellness clinics – an increase of almost 40% in 2006 – and in patients taking ART – a 57% increase in 2006. The high number of HIV-positive employees not remaining on ART after starting treatment also exacerbates the situation. However, this gives added impetus to the importance of the prevention aspects of the HIV/AIDS programme and to encouraging employees to attend VCT and the wellness clinics.

The final report of the Aurum research programme is scheduled for release in mid-2007.

AngloGold Ashanti establishes avian flu task force

According to the World Health Organization, avian influenza (flu) poses the single biggest global health threat at present. Up to 30% of people may become ill over the first six-eight weeks of a pandemic. It is estimated that in South Africa, 16 million people would fall ill with more than 1 million requiring hospitalisation. A pandemic of this magnitude would overwhelm health care systems. Current mortality rates from avian flu are more than 50%.

There are three known types of influenza viruses, namely A, B (human) or C (bird/animal) types. C viruses cause only mild illness while the B virus may be more debilitating. Of much more serious concern, however, are the A viruses, such as that which causes avian flu, which are found in a constantly changing genetic pool, especially in aquatic birds. New, novel sub-types of viruses may arise to which the human population has no immunity, thus leading to influenza pandemics. These occur approximately three to four times a century.

The most devastating such pandemic in modern times occurred in 1918 when the "Spanish Flu" resulted in the death of 100 million people. This epidemic was caused by an influenza A virus that mutated and became transmissible in the susceptible human population, which had been weakened and decimated by a four-year world war. Pandemics of this magnitude clearly have enormous economic and social consequences.

Currently the avian flu virus is endemic in bird populations, especially in South East Asia. A bird carrying this virus can only infect a human through very close contact, often the case in poor communities.

While there is currently no evidence of human-to-human transmission, modern viral studies indicate that the avian flu virus may mutate and become transmissible between humans, a situation many virologists consider inevitable. The timing of such an occurrence is uncertain, although global experts expect it to occur within the next few years, and as the antigenic structure of the virus in unknown at present, no vaccine is as yet available. Following the onset of such a pandemic, it would take up to 12 months to prepare a vaccine and Africa is unlikely to be a global priority for vaccine distribution.

Treatment may be possible with the antiviral drug Tamiflu which could be used as prophylactic treatment in the case of known exposure or as therapeutic treatment with the onset of the disease. Tamiflu was registered in South Africa in February 2006.

In determining an appropriate response to the risk associated with avian flu, AngloGold Ashanti has attempted to be balanced. The threat of avian flu, which is real, and its consequences, are currently difficult to quantify. There is uncertainty among experts as to when (or if) a pandemic will break out and if it does, how infectious the virus might be and what morbidity and mortality might result. In assessing the risk to AngloGold Ashanti, cognisance was taken of the reaction of the WHO and European and North American countries. Disaster plans have been formulated and many countries have begun stockpiling Tamiflu. In early 2006, the USA allocated a budget of $7.1 billion in preparation for a flu pandemic. As at April 2006, the United Kingdom had sufficient Tamiflu to treat 15 million citizens and continues to stockpile. The South African government is currently developing a draft pandemic influenza protocol, based on a draft prepared by the WHO.

REGIONAL HEALTH
Case study

AngloGold Ashanti completed a risk assessment of the possible impact of an avian flu epidemic on its South Africa operations at the end of 2005 and an avian flu task group was established in early 2006. Work began on developing material for education and training, a communication strategy, stockpiling of Tamiflu (6,000 courses are now in stock), and an extension of the risk assessment to include the greater group .

During 2006, PricewaterhouseCoopers (PWC) was asked to assist the avian flu task group in formalising an Avian Flu Business Continuity Management (BCM) process for AngloGold Ashanti. Mponeng mine was chosen as the pilot site where the work would be done. Over a two-month period, PWC staff worked closely with Mponeng management and an effective BCM plan has evolved. Plan development included a full day of "avian flu crisis simulation" facilitated by PWC for Mponeng management. Concepts such as when, in the event of a pandemic, the mine would proceed to an orderly care and maintenance mode are contained in the BCM plan It should be noted that BCM concepts may be applied to many other disaster-type scenarios and much has been learned by those involved in the BCM process on the mine.

It is intended to roll out similar BCM plans to the rest of the company in 2007.

Prevention and VCT at TauTona – Progress made in 2006

Voluntary Counselling and Testing (VCT) and wellness clinic attendance at TauTona were among the best at AngloGold Ashanti's South Africa operations in 2006: 4,848 VCT attendances, more than double the target and 769 wellness clinic registrations, were recorded. In addition, TauTona now has among the highest number of employees receiving anti-retroviral therapy (ART) since the roll-out of the ART programme.

A three-phase approach has been developed to control the spread of HIV and AIDS among employees at TauTona. This approach, which is in line with corporate strategy, focuses clearly on the ultimate aim of maximising the health and longevity of the mine's workforce. The three phases of this approach are:

- education and awareness;
- VCT; and
- wellness and treatment.

While the three phases were initially introduced sequentially, today they form an overlapping integrated whole, with increasing emphasis on the latter two phases given that the condition of an infected person can only ultimately improve with treatment.

After some 10 years of education and awareness campaigns, the existence of the disease is now widely acknowledged. However, many misconceptions and misunderstandings continue to exist, and the need for education and maintaining awareness remains. VCT initiatives were revitalised about two years ago against a background of the perceived stigmatising of known HIV/AIDS sufferers. By ensuring strict anonymity, trust among employees has grown and with it the acceptability of VCT. At the same time, the stigmatisation of those who are HIV-positive has become less prevalent.

Private knowledge of an individual's own HIV status is in itself emotionally traumatic. However, participation in a wellness programme could potentially make the individual's condition more widely known. It is this fear which has to be overcome to ensure that all those infected request treatment. Participation in this phase is now receiving greater attention, and particular attention is being given to maintaining anonymity.

Employees at TauTona have access to one permanent wellness clinic counsellor but efforts are made to arrange events at which testing is 'taken to the people', making it easily accessible to all employees.

These events included the very successful Mine Overseers' Safety Days held in May 2006 during which the full section was on surface and VCT counsellors were available for mass testing. Feedback on the results of these tests was presented the following day, in private and confidential counselling sessions. These days were a marked success and responsible for the surge in VCT attendance in the second quarter – 3,127 as compared to between 500 and 600 – and more such days are scheduled for February 2007.

In addition, the use of peer educators is beginning to bear fruit. Peer educators, often people who are HIV-positive, talk to and advise mine employees about HIV/AIDS. They promote awareness of the disease, educate and inform, answer questions and encourage people to attend VCT. Peer educators have been trained and are fully committed to what they do. They have also played and continue to play a significant role in encouraging people to attend the wellness clinics and receive treatment.

Although no further mass campaigns have been conducted at TauTona during the year, monthly participation continued to exceed target, largely owing to the work done by peer educators, which built on that of the Mine Overseers' Safety Days.