





CORPORATE RESPONSIBILITY

We aim to improve global health. Through our business, we make an important contribution to society: We discover and develop innovative healthcare products, targeting unmet medical needs.

Novartis collaborates with others to help address some of the world's greatest health challenges. We focus our corporate responsibility work on two areas:

Expanding access to healthcare

We work to expand access to healthcare and reach more patients with our medicines and vaccines. We concentrate our efforts on controlling and eliminating diseases such as malaria and leprosy, pioneering new business approaches to reach underserved patients, and finding new treatments and adaptive solutions to improve health in the developing world. In 2012, these efforts reached more than 100 million patients.

Doing business responsibly

Responsibility is a core part of our business and underscores our purpose of caring and curing. We care for our associates, strive to positively contribute to the communities where we live and work, and protect the environment. We conduct business ethically, maintaining a Code of Conduct and governance system to ensure our associates uphold our values.

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CORPORATE RESPONSIBILITY KEY PERFORMANCE INDICATORS

Indicator	2012	2011	2010	2009	2008
Economic					
Net sales in USD billions	56.7	58.6	50.6	44.3	41.5
Net income in USD billions; % of net sales	9.6; 17%	9.2; 16%	10; 20%	8.5; 19%	8.2; 20%
Core Research & Development in USD billions; % of net sales	9.1; 16%	9.2; 16%	8.1; 16%	7.3; 16%	6.8; 16%
Personnel costs in USD billions; % of net sales	14.8; 26%	14.9; 26%	12.2; 24%	10.9; 25%	10.6; 26%
Taxes in USD billions; % of net income before taxes	1.6; 14%	1.5; 14%	1.7; 15%	1.5; 15%	1.3; 14%
Dividends in USD billions; % of net income attributable to Novartis shareholders ¹	6.2; 65%	6.0; 66%	5.4; 55%	4.5; 53%	3.9; 49%
Cash returned to shareholders via second-line share repurchases in USD billions; % of Group total net income	0; 0%	2.4; 26%	0; 0%	0; 0%	0.3; 0%
Share price at year end (CHF)	57.45	53.70	54.95	56.50	52.70
Expanding access to healthcare²					
Total patients reached with Novartis products (millions) ³	1 200	1 148	913	930	850
Patients reached through access to healthcare programs (millions)	101.4	89.6	85.5	79.5	73.7
Value of access to healthcare programs (USD millions)	2 051	1 784	1 544	1 510	1 259
Doing business responsibly					
Full-time equivalent positions	127 724	123 686	119 418	99 834	96 717
Resignations (incl. retirements); separations; hiring (% of associates)	9; 5; 17	8; 4; 15	8; 3; 14	8; 3; 14	10; 5; 14
Women in management ⁴ : % of management; % of Board of Directors	37%; 16.7%	36%; 18.2%	36%; 16.7%	35%; 16.7%	37%; 8.3%
Number of associate nationalities	153	153	149	144	143
Lost-time injury and illness rate (per 200 000 hours worked) ^{5,6}	0.14	0.19	0.18	0.22	0.34
Total recordable case rate (per 200 000 hours worked) ^{5,6,7}	0.45	0.61	0.73	0.93	1.09
Transportation-related injuries leading to lost time ^{5,6}	37	39	49	58	77
Contact water use, excluding cooling water (million m ³) ^{6,8}	17.2	17.1	15.1	15.0	15.1
Energy use (million GJ), on site and purchased ^{6,8}	19.3	19.3	17.5	17.0	16.9
GHG emissions, Scope 1 vehicles (1 000 t) ^{6,8}	174	192	166	174	180
GHG emissions, total Scope 1, including vehicles, and Scope 2 (1 000 t) ^{6,8}	1 651	1 703	1 504	1 509	1 523
Total operational waste not recycled (1 000 t), hazardous and non-hazardous ^{6,8}	132	142	154	141	138
Active associates trained and certified on Code of Conduct via e-learning course ⁹	98 175	47 499	48 137	55 793	42 740
Cases of misconduct reported; substantiated ¹⁰	1 675; 907	1 522; 842	1 236; 743	913; 541	884; 374
Dismissals and resignations related to misconduct ¹⁰	426	716	608	564	217
Total number of suppliers ¹¹	214 754	225 500	241 365	206 155	228 769
Suppliers informed of Novartis Third-Party Guidelines (annual sales of more than USD 100 000 and not requiring a self-declaration) ¹¹	37 007	45 203	39 575	45 858	28 792
Suppliers to confirm key standards (self-declaration) ¹¹	3 316	3 926	3 388	842	1 157

¹ Dividend payment 2012: proposal to the 2013 Annual General Meeting

² See table on page 73 for additional detail

³ 2012 number not fully comparable to previous years due to methodology changes

⁴ Management defined locally. Data source % of management: FirstPort (Local Mgmt.Flag) as of December 2012

⁵ Excludes data for contractors

⁶ Alcon data included in Group figures from 2011 onwards

⁷ Includes all work-related injury and illness, whether leading to lost time or not

⁸ For details on environment see: www.novartis.com/environmental-care

⁹ Prior to 2012: e-Training was given to new hires only and certification was only required from all US associates as well as all managers worldwide

¹⁰ Figures of previous years have been updated to reflect completion of outstanding investigation

¹¹ Figures for 2012 exclude data for countries where a new Responsible Procurement Program Pilot has been implemented

EXPANDING ACCESS TO HEALTHCARE

NEWS IN 2012

Novartis extends collaboration with WHO to end leprosy. Through the Novartis Foundation for Sustainable Development (NFSD), Novartis continues to provide free multidrug therapy for all leprosy patients.

With the Zambian government, generics division Sandoz expands healthcare access by supplying quality medicines to Health Shops, which are the primary healthcare providers in rural areas.

Deliveries of antimalarial treatments without profit hit 500 million, including 100 million child-friendly treatments. SMS for Life, which uses SMS messages to track antimalarial stocks at public health facilities, expands across Africa.

Alcon supports 800 medical missions in more than 90 countries, restoring vision for 54 000 people who do not have regular access to eye care.

After 10 years of the *Glivec* International Patient Assistance Program (GIPAP) and four years of Novartis Oncology Access, nearly 50 000 patients are reached through these programs.

Novartis Social Business Group launches social business models Familia Nawiri in Kenya and Cung Song Khoe in Vietnam, aiming to expand access to healthcare for people living at the bottom of the economic pyramid.

NFSD and partners mark 10th anniversary of REPSI (Regional Psychosocial Support Initiative), helping more than 5 million HIV/AIDS orphans and vulnerable children across sub-Saharan Africa cope with loss.

The primary objective of corporate responsibility programs at Novartis is to steadily increase the number of patients reached with medicines, vaccines and other products from our unique and broad healthcare portfolio.

Novartis has been a leader in access to healthcare for many years, based mainly on philanthropic and not-for-profit programs. Yet the number of underserved patients greatly exceeds the capacity of corporate philanthropy, and there is an increasing interest in shared value business models to complement ongoing philanthropic and zero-profit initiatives.

Financially sustainable shared value programs align societal and business ambitions – enhancing access to healthcare among underserved groups and at the same time enabling large-scale, long-term engagement by Novartis.

One example is Arogya Parivar, a commercial model developed to address health needs of impoverished people in rural vil-

lages of India. Arogya Parivar (“healthy family” in Hindi) caters to more than 40 million people in 33 000 rural villages across India; social impact and business growth go hand-in-hand.

Health educators from Arogya Parivar raise awareness about healthcare, hygiene and nutrition, and revenues from the sale of corresponding Novartis products cover the cost of these activities. The model expanded to Kenya and Vietnam in 2012 and is being expanded to Indonesia, Nigeria and Ghana in 2013.

Philanthropy remains indispensable to reach those in circumstances of abject poverty and unmet medical need. Since 2000, Novartis has worked with the World Health Organization (WHO) to provide free treatment to leprosy patients, helping to cure more than 5 million people worldwide. In 2012, we agreed to extend donations of multidrug therapy through 2020, and expect eventually to reach about 850 000 patients.

A LEADER IN MALARIA CONTROL AND ELIMINATION

Novartis is a leader in the global effort to control and eliminate malaria. Over the past decade, to ensure that effective treatment reaches patients, the Novartis Malaria Initiative has provided our antimalarial, *Coartem*, without profit to public healthcare systems in malaria-endemic countries as part of a groundbreaking, public-private partnership with WHO.

Launched in 2001, *Coartem* was the first approved artemisinin-based combination therapy (ACT), the most potent class of antimalarial medicine available. In 2009 Novartis launched *Coartem* Dispersible, the first pediatric ACT, developed jointly with Medicines for Malaria Venture. To date, more than 500 million treatments have been delivered to more than 60 malaria-endemic countries.

Still, only one in three patients treated for malaria in sub-Saharan Africa receives an ACT. To further enhance access to ACTs, the Novartis Malaria Initiative is exploring new ways to improve distribution through the private sector – without the support of donor subsidies.

Working with other partners, under the umbrella of the Roll Back Malaria Partnership, Novartis also helped develop SMS for Life, a tool to improve supply chain management and forecasting. Today, in line with its commitment to innovate and continue leading the fight against malaria, the Novartis Malaria Initiative is extending its commitment to enhance access to affordable, quality-assured antimalarials through the private sector.

“The long-term objective of Novartis is to help eliminate malaria,” said Linus Igwemezie, Head of the Novartis Malaria Initiative. “You can only achieve elimination if you also address the needs of the huge proportion of patients who seek care through the private sector.”

While poverty and disease remain major challenges, many parts of Africa have witnessed a dramatic economic expansion over

the past decade. It is estimated that 625 million antimalarial treatments are bought each year in the private sector of endemic countries – yet obsolete or substandard medicines constitute a large proportion of the dispensed treatments. In an effort to provide these patients with quality-assured ACTs, Novartis is extending differential pricing of *Coartem* and *Coartem* Dispersible with the aim of enhancing access for this growing middle class.

To ensure tight control of quality and pricing, Novartis is working with a small number of distribution partners. The partners have experience in access programs and also share our goal of making affordable, quality medicines more accessible. As part of this effort, Novartis intends to train staff in pharmacies and retail outlets in appropriate diagnosis and treatment of malaria.

A pilot program in the private sector was launched in Malawi in 2012. Eight additional countries selected for rollout (Nigeria, Kenya, Uganda, Tanzania, Zambia, Rwanda, Ghana and Ethiopia) were chosen based on multiple criteria including high unmet medical need; lack of access to quality ACTs in the private sector; or low access to ACTs through public health systems.

STAYING ONE STEP AHEAD OF THE PARASITE

Malaria is a parasitic disease and, by definition, parasites always adapt and build resistance against available treatments. It is just a question of time.

“It is very important to keep one step ahead of the parasite and provide innovative treatments to support elimination efforts,” said Thierry Diagana, Ph.D., Head of the Novartis Institute for Tropical Diseases in Singapore.

Even though the overall efficacy of ACTs is not yet affected, studies in Southeast Asia have shown the first signs of delayed response to treatment. Patients are still being cured – but it takes longer.

Novartis is working toward a new breakthrough in the fight against malaria, which kills a child every 60 seconds. “We are particularly excited about our two new drug candidates because, if successfully developed, they would be the first new antimalarials in many years not belonging to the artemisinin class, and provide a completely new option to treat the disease,” Mr. Diagona added.

The first compound, known as KAE609, is currently in Phase II clinical testing. It is a so-called spiroindolone molecule that rapidly and potently kills malaria parasites.

In 2011, Novartis researchers reported the discovery of another new class of dual-acting compounds known as imidazole piperazines (IZPs) that target the parasite at both the liver and blood stage of its reproductive cycle. Scientists believe that future antimalarials will have to work against both blood and liver stages, and the lead candidate in the Novartis IZP program is now in Phase I clinical trials.

DOUBLE BURDEN OF DISEASE

While infectious diseases remain the biggest killers in developing countries, the pattern of disease is changing. Increasingly, sub-Saharan Africa faces a “double burden of disease” with prevalence of noncommunicable diseases rising. Data indicate that Africans have the highest incidence of elevated blood pressure in the world and the number of strokes is expected to reach epidemic levels in coming years.

Access to healthcare for millions of Africans is restricted by physical barriers, such as poor transportation, but limited capacity and capabilities of healthcare systems are another major obstacle. Africa has two physicians and nine hospital beds per 10 000 people; the corresponding figures in Europe are 33 physicians and 62 beds per 10 000 people. Epidemiological data is poor, which affects planning and resource allocation in public health systems.

The shortage of specialists is even more dramatic. Zambia, for example, has an estimated 900 physicians to serve a population of 13 million people. Only one Zambian physician in seven has specialist training.

Novartis is providing platforms to help improve capabilities by investing in greater awareness, earlier detection and better early management. These initiatives aren’t always targeted at physicians – they involve nurses or community health workers on the ground.

“Our most important work in this arena is to discover new medicines. But to be effective, we also need to think about training and how to get existing medicines to the right patients,” said Mark C. Fishman, M.D., President of the Novartis Institutes for Biomedical Research (NIBR) and member of the Executive Committee of Novartis.

“We are offering scientists from developing countries training at NIBR research hubs in Basel, Switzerland and in Cambridge, Massachusetts in the United States. And some of our own scientists are going to countries in the developing world to participate in training there,” Dr. Fishman added. “This is a very important part of building expertise in these regions and encouraging scientists from these areas to come and collaborate with us.”

Novartis is sponsoring African healthcare scientists in a master’s degree program in clinical epidemiology at the University of Stellenbosch in Cape Town, South Africa. Assessing the prevalence of major noncommunicable diseases in countries and local communities is a major challenge. “Right now those data are next to impossible to obtain,” said Patrice Matchaba, M.D., Global Head of Development Operations at the Novartis Pharmaceuticals Division.

During the master’s degree program, a team of Novartis scientists travels to Stellenbosch University and serves as faculty for subjects ranging from the science of epidemiology to modeling and simulation and specialized pharmaceutical statistics.

There are currently 30 students in the program, drawn from a number of different countries. “These students are not bound by any ties to Novartis,” Dr. Matchaba said. “We believe most of the participants will return home, find positions with their national Ministry of Health and begin work to provide the epidemiological data that are urgently needed.”

“NEXT GENERATION” SCIENTISTS

In 2011, Novartis launched the Next Generation Scientist Program to support drug discovery and clinical research in developing countries. In 2012, 21 interns from 10 countries, including Brazil, Vietnam, Ethiopia and South Africa, spent three months in Basel under mentorship of Novartis scientists.

Interns are university graduates and prospective scientists already embarked on post-graduate studies. Interns work on drug discovery and clinical research projects, and interactions with mentors provide a platform for Novartis scientists to learn about healthcare challenges in diverse parts of the world.

The program epitomizes partnerships between African research institutes and the private sector. Each of the first two cohorts of interns has included a scientist from the Drug Discovery and Development Centre (H3-D) at the University of Cape Town, South Africa. H3-D is Africa’s first integrated drug discovery and development institute.

Professor Kelly Chibale, Ph.D., Director of H3-D, has worked closely with Novartis to identify projects for interns to help plug local technology and skill gaps. “The attraction of the Next Generation Scientist program goes beyond the individual intern; for us it’s about building an institution,” Mr. Chibale said.

He emphasized the importance of addressing a problem that has long bedeviled African science. “Simply sending people to Novartis or European universities provides



no continuity when people return – what do they come back to? Interns returning to H3-D continue to work on the same project and with some of the technical infrastructure they saw at Novartis.”

The relationship with Novartis has been further strengthened with the establishment of a Global Health Sabbatical Program by NIBR. During the sabbaticals, Novartis scientists travel to South Africa and remain at H3-D for several weeks.

“These Novartis scientists will be able to train more people at our center than just a single intern. And by doing it in our environment – with our infrastructure – they will get a better understanding of what we are dealing with, and they can advise us better,” Mr. Chibale added. “This is about building sustainable programs and relationships to learn from people who have done it before.”

CENTER OF EXCELLENCE

Since 2009, Novartis has worked with Kenyatta National Hospital in Nairobi, Kenya to establish a center of excellence for kidney transplantation. Rising incidence of diabetes and hypertension, and poor treatment available for both disorders, is leading to a sharp increase in end-stage kidney disease.

Kenya has a severe shortage of dialysis machines and treatment centers. Access to dialysis is limited to wealthy individuals who often also have the alternative of traveling abroad for kidney transplants. Unmet need is immense and is expected to continue to grow, so offering transplants locally could help ease some of the strain on local dialysis capacity.

The project, known as Interlife, has included training in Spain for Kenyan doctors as well as on-site training at Kenyatta Hospital supervised by Spanish transplant specialists. The first two volunteer trainers were Antonio Alcaraz, M.D., Head of the Urology Department at the Hospital Clinic

Barcelona, and Federico Oppenheimer, M.D., Head of the Nephrology Unit at the same institution. “For all their previous contributions to the evolution of transplantation in Spain, they realized the huge impact on public health they could have in a developing country,” said Maria Sotomayor Ruiz, a Novartis Spain associate and project manager for the Interlife initiative.

Today, Kenyatta Hospital performs approximately 30 kidney transplants per year. More than a dozen Spanish physicians have joined Dr. Alcaraz and Dr. Oppenheimer as mentors.

In 2013, Novartis plans to expand the Interlife program to Nigeria, with the support of transplant specialists from Brazil. Novartis pays for travel to and from Brazil plus expenses but the visiting physicians don’t receive compensation. “The doctors from Brazil supporting our program in Nigeria come because they want to get to know Africa and help people in great need of care. It is good to take part in this kind of collaboration outside your own country – everyone gains at the end of the day,” said Nathalie Cretin, M.D., Ph.D., Regional Medical Director for Novartis Pharmaceuticals.

CROSS-DIVISIONAL INITIATIVES

Dr. Fishman has been the driving force behind initiatives in Zambia aiming to improve access to care for asthma, hypertension and rheumatic heart disease patients.

During a visit in 2010 to the University Teaching Hospital in Zambia’s capital, Lusaka, Dr. Fishman discovered that diagnosis and treatment of asthma lagged international standards of care. One reason was a deep-seated cultural aversion to use of inhaled medicines: Many patients associate inhaled therapy with illicit narcotics and fear they will become addicted.

Sandoz, the generics division of Novartis, agreed to donate medicines, but health

authorities demanded an epidemiology study to prove the existence of asthma in Zambia. Those studies are nearing completion, and results to date confirm a high prevalence of asthma in the country.

In parallel with the ongoing epidemiological studies, Novartis and the University Teaching Hospital of Lusaka began a training initiative called Zambora, modeled on the Interlife project in Kenya. In 2011 and 2012, a large group of asthma specialists from Spain traveled to Zambia to support three workshops per year at 11 primary care medical centers in Lusaka. The workshops introduce basic information about the disease, diagnosis and management. In addition, healthcare professionals from Zambia have visited five hospitals in Spain for further education.

Regulatory authorities have approved inhaled treatments, and Novartis agreed to donate medications for the first 18 months of the Zambora program and subsequently provide the drugs at no profit.

The training programs are planned to continue during 2013. Novartis and the University Teaching Hospital of Lusaka also are planning an audit to gauge improvement in diagnosis and treatment.

In addition to these efforts, physicians from NIBR conducted trainings in Zambia on diagnosis and treatment of hypertension during 2012.

Meanwhile, Dr. Fishman has another disease in his sights. One of the biggest killers of Zambian children between 5 and 15 is rheumatic heart disease, a condition easily controlled with antibiotics and virtually unknown in developed countries. "It is a disease children can get after a sore throat. It can be treated with a single shot of penicillin, but in Zambia penicillin isn't widely available." Dr. Fishman explained.

Health authorities again have insisted on an epidemiological study to confirm the prevalence of the disorder. NIBR scientists are working with local counterparts to design the study, and Sandoz will supply penicillin. "By working together, we believe that we might be able to eliminate rheumatic heart disease in Zambia," Dr. Fishman said.

NOVARTIS ACCESS TO HEALTHCARE PROGRAMS 2012

Research & Development

Program	Strategic objective	FTEs ¹	Value ² (USD millions)
Novartis Institute for Tropical Diseases	Discover and develop effective and affordable treatments for major tropical diseases, such as malaria, dengue fever and African sleeping sickness	104	15.7
Novartis Vaccines Institute for Global Health	Discover and develop effective and affordable vaccines to prevent infectious diseases prevalent in developing countries, such as typhoid	34	7.7
Novartis Institutes for BioMedical Research neglected disease programs	Discover and develop novel and affordable treatments for infectious diseases prevalent in developing countries, such as Chagas disease, leishmaniasis and infectious diarrhea	47	10.6
Total		185	34.0

Patient assistance

Program	Strategic objective	Patients reached (thousands)	Value ³ (USD millions)
Novartis Patient Assistance Foundation, Inc.	Assist patients experiencing financial hardship, without private or public prescription coverage for their medicines (US)	100.0	500.0
<i>Glivec</i> patient assistance	Ensure access to <i>Glivec</i> – where needed and possible – for patients with rare cancers who cannot afford the drug	52.3	1 036.2
<i>Tasigna</i> patient assistance	Expand access to <i>Tasigna</i> for patients with rare cancers through Novartis Oncology Access	3.1	92.3
<i>Exjade</i> patient assistance	Expand access to <i>Exjade</i> for more patients with thalassemia and sickle cell diseases, in more places	6.4	26.0
Alcon medical missions ⁴	Provide traveling medical teams with Alcon products	712.2	41.2
Alcon US patient assistance	Assist patients experiencing financial hardship by providing Alcon products	19.4	17.9
Malaria/ <i>Coartem</i>	Provide <i>Coartem</i> without profit for public sector use	99 799.9	281.7
Leprosy (WHO)	Contribute to the global elimination of leprosy by providing multidrug therapy (MDT) to all patients through WHO	266.1	4.8
Tuberculosis	Provide fixed-dose combination tablets to all adult category I and III patients in Tanzania	97.3	2.5
Fascioliasis/ <i>Egaten</i> ⁵	Provide <i>Egaten</i> free of charge to treat fascioliasis and paragonimiasis	178.5	0.1
Emergency relief (medicine donations)	Support humanitarian organizations to enable them to help people with first aid activities ³	–	0.2
Total		101 235.2	2 002.9

Health systems strengthening

Program	Strategic objective	FTEs ¹	People reached (thousands) ⁶	Patients reached (thousands)	Value ² (USD millions)
Novartis Foundation for Sustainable Development	Improve access to quality healthcare and social services for poor people in developing countries through project work, think tank and stakeholder dialogue	7	4 649.3	–	10.6
Novartis research capacity-building programs	Educate the next generation of scientists and clinicians and improve research infrastructure in the developing world	4	0.5	–	3.5
Social Business: ⁷ Arogya Parivar, Familia Nawiri	Improve healthcare and medicine access in villages of developing countries for poor patients	563	2 565.9	248.1	–
Total		574	7 215.7	248.1	14.1
Grand total		759	7 215.7	101 483.3	2 051.0

¹ Full-time equivalent positions and contractors

² Operating costs

³ Wholesale acquisition cost (WAC) plus logistics costs for some programs

⁴ Retail value for surgical products

⁵ Manufacturing costs

⁶ Via training and service delivery

⁷ People reached via training

For more information, updates and details on calculation methodology on access to healthcare programs, please see www.novartis.com/access



CORPORATE RESPONSIBILITY: KEY TARGETS AND RESULTS FOR 2012 AND KEY TARGETS FOR 2013

ACCESS TO HEALTHCARE

Targets 2012	Results 2012	Targets 2013
Complete rollout of <i>Coartem</i> and <i>Coartem</i> Dispersible under Phase I of AMFm. Further expand access to <i>Coartem</i> and <i>Coartem</i> Dispersible in select malaria-endemic countries.	More than 95 million <i>Coartem</i> treatments, including 55 million <i>Coartem</i> Dispersible treatments, were provided to the public sector and under Phase I of AMFm. Access to <i>Coartem</i> and <i>Coartem</i> Dispersible was further expanded in the private sector in nine malaria-endemic countries.	Continue to expand access to <i>Coartem</i> and <i>Coartem</i> Dispersible through new channels driven by the private sector in select malaria-endemic countries.
Improve Arogya supply chain efficiency for remote villages by appointing direct distributors.	Eighty Arogya cells (30%) had direct distributors serviced from Novartis India warehouses, improving services and availability of medicines in remote areas.	Increase direct distribution to 50% of network. Expand Kenya pilot from three to 20 cells covering 1 000 villages, and increase portfolio to 15 medicines covering four additional disease areas. Expand Vietnam pilot from four to 20 cells. Initiate pilots in Indonesia, Nigeria and Ghana.

Research & Development

Enter Phase IIa proof-of-concept (POC) with KAE609 (formerly NITD609) and Phase I with KAF156. Develop process for vaccine for nontyphoidal salmonella. Pilot scale GMP manufacture of Shigella vaccine.	Antimalaria spiroindolone compound KAE609 successfully completed clinical POC study, Phase II clinical testing against <i>Plasmodium falciparum</i> and <i>vivax</i> malaria is underway. Antimalaria imidazolo-piperazine compound KAF156, active against liver- and blood-stage malaria, was tested in humans and Phase I clinical testing (POC) was initiated. Lab scale process was developed for nontyphoidal salmonella vaccine; in preclinical studies, prototype showed activity against the two main serotypes in Africa. Pilot scale GMP production process was developed for Shigella vaccine and GMP bulk antigen was produced by late 2012.	Successfully complete clinical POC study for KAF156. Identify new preclinical compound to eradicate liver-stage infection of <i>Plasmodium vivax</i> . Continue Phase II clinical testing for KAE609 against <i>Plasmodium falciparum</i> and <i>vivax</i> .
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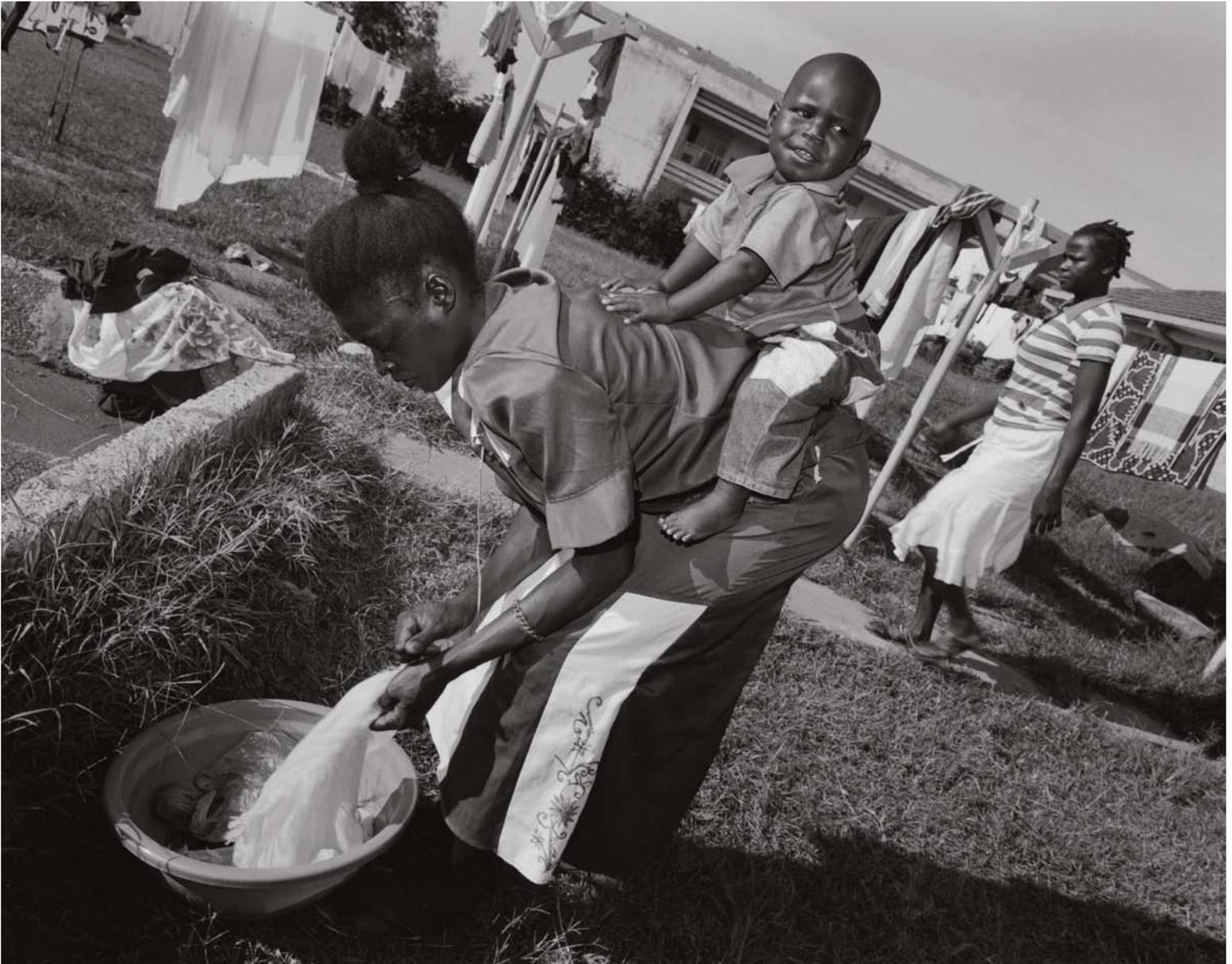
PARTNERSHIPS

Targets 2012	Results 2012	Targets 2013
Collaborate with key patient groups to spur government and employer action on COPD early diagnosis and treatment. Collaborate with MS groups to improve standards of diagnosis and management of MS. Advocate for, and provide better training for, diabetes nurses. Follow up on agreed actions to consolidate global advocacy initiative for gout patients.	The "COPD Uncovered" survey, supported by the COPD Foundation (patient group), Education for Health (nurse organization) and IHPM (employer organization), was used to increase awareness among policymakers. The European MS Patient Group helped coordinate MS Nurse PRO, a nurse training curriculum for the European Union. Following a diabetes nurse training workshop chaired by IDF Europe, outcomes were shared during an EU diabetic macular edema symposium at the Foundation of European Nurses in Diabetes (FEND). Held first advisory board for gout patient advocacy groups seeking support for better access to new treatments.	Work with patient community to help change attitudes toward and understanding of COPD. Encourage better disease awareness and education for dermatological conditions such as psoriasis. Support the global Heart Failure Coalition to increase understanding of the burden of disease, economic impact and treatment options. Improve knowledge of what life is like with MS and help patients connect to exchange experiences. Organize stakeholder dialogues in New York and Geneva on improving access to quality healthcare. Intensify efforts to build a multi-stakeholder initiative to eliminate leprosy.

TRANSPARENT REPORTING

Targets 2012	Results 2012	Targets 2013
Release 2011 UNGC Communication on Progress. Release 2011 Novartis GRI report at a high application level. Consistently update online CSR communications.	2011 UN Global Compact Communication on Progress was released in March 2012. 2011 GRI report received application level A+.	Conduct materiality analysis of corporate responsibility issues, risks and opportunities, and incorporate results into decision-making and 2014 planning.

For a full list of current Novartis targets and results, please see www.novartis.com/2013targets



DOING BUSINESS RESPONSIBLY

NEWS IN 2012

Novartis scores high in industry rankings, outperforming all other pharmaceutical companies in Fortune's "World's Most Admired Companies" and Barron's "World's Most Respected Companies" surveys. Novartis receives SAM Gold Class award, and is included in Dow Jones Sustainability World and FTSE4Good indices.

Novartis partners with TED – a not-for-profit group formed to disseminate "ideas worth spreading" – to engage stakeholders in improving healthcare in Africa through live and online brainstorming at TEDGlobal in Scotland and Novartis Campus in Switzerland.

Novartis Be Healthy initiative, introduced in 2011, expands to include more than 95% of Novartis Group company associates worldwide, promoting healthy behaviors and providing access to key personal health metrics.

Novartis Environment and Energy Awards recognize projects that improve our environmental footprint. Of 179 projects submitted, more than 140 are completed, achieving cost savings of USD 21 million and reducing waste, water use and CO₂ emissions.

Supreme Court of India holds full hearing on the *Glivec* patent case from September to December 2012. Novartis seeks clarity on Indian patent system, and more than 95% of *Glivec* patients in India receive medicine free through the *Glivec* International Patient Assistance Program.

In addition to expanding access to healthcare, Novartis is committed to other important areas of corporate responsibility – from environmental protection and employee health and safety to establishing transparent, ethical corporate standards and policies.

The cornerstone of responsible business conduct at Novartis is our commitment to the United Nations Global Compact, an initiative that supports a set of core values in the areas of human rights, labor standards, the environment and efforts to combat corruption. Novartis was one of the first signatories to the Global Compact and set concrete, action-specific targets, defined performance indicators, and integrated measurement into existing systems and working practices.

Novartis strives to maintain a culture of safe behavior and on-site health promotion as well as a high level of employee engagement, sustaining a positive working environment for our associates. Novartis conducts a Global Employee Survey every two years to highlight strengths as well as opportunities for improvement.

Reducing environmental impact on the planet – in particular tight control of greenhouse gas emissions and energy efficiency – is not only important for Novartis but critical for society and future generations. We strive to operate in a manner that is environmentally sustainable and responsible toward stakeholders.

REDUCING GREENHOUSE GAS EMISSIONS

2012 was a year of reckoning for efficiency of energy use by Novartis.

In 2005, the Executive Committee of Novartis set a greenhouse gas target for the Group by voluntarily adopting the principles of the Kyoto Protocol. That commitment called for reducing on-site CO₂ emissions from the 1990 level by 5% by 2012. Energy efficiency has improved significantly during the past seven years, and combined with forestry projects, has enabled Novartis to attain its 2012 Kyoto target.

Significant improvements in energy efficiency at plants in Europe also have enabled Novartis to satisfy requirements of the European Union's "cap and trade" legislation.

By contrast with other major companies, Novartis has not purchased emission allowances to achieve the European Union's requirements, and Group companies actually currently hold a surplus of emission allowances.

Along with increasing the efficiency of energy used in existing operations and adopting renewable energy sources where feasible and economically attractive, the highlight of the Kyoto program at Novartis has been forestry carbon-offset projects in Argentina, Mali and China. Carbon sequestration, the uptake of carbon dioxide by trees as they grow and mature, is an environmentally friendly complement to other ongoing initiatives to reduce CO₂ emissions. These projects also have positive social benefits with local communities.

Afforestation projects are challenging. A fire during 2012 destroyed about 23 hectares of the plantation in Argentina. In the West African republic of Mali, local farmers planted jatropha bushes and fruits that are transformed to renewable biofuel. Some of the early plantings died, and replantings have delivered a lower volume of carbon offsets than originally expected.

Nonetheless, the jatropha project has been recognized as the first agroforestry project validated as a voluntary carbon standard. Importantly, farmers grow jatropha

side by side with food crops like beans, peanuts, corn or sorghum. The jatropha bushes provide shade and protection from wind, as well as soil enrichment for food crops.

"Mali is at least as much a social project as an environmental one, and our project in China involves communities and enhances biodiversity, as well as reducing CO₂ emissions," said Keith Saveal, Head Corporate Health, Safety, Environment and Business Continuity at Novartis.

Looking ahead, Novartis has set new targets for greenhouse gas emissions for 2015 and 2020, compared with the baseline year 2008. The new targets will be more demanding than the initial Kyoto commitment. The largest source of greenhouse gas emissions at Novartis is purchased energy – primarily electricity – and these emissions are included under the new targets.

"The drive for energy efficiency and our commitment to climate control is not finished," Mr. Saveal said. "We have even more stringent commitments for the future. These are absolute numbers – not expressed as a percentage of sales or some other relative target."

GLOBAL DRIVER SAFETY

Novartis associates drive millions of kilometers every year on business, and traffic accidents were the second-biggest component in the Group's lost-time injury and illness

rate (LTIR) as recently as 2011. Fleet safety programs have helped to reduce the number of serious accidents resulting in lost working time in recent years.

Novartis Pharmaceuticals Corporation in the United States was a forerunner, rolling out a fleet safety program in 2008. Under the SAFE Fleet Program, drivers complete online training programs, promoting safe driving techniques. Performance metrics for number and type of accidents, driver ratings and training completed are tracked closely; since 2008, the number of accidents and incidents involving US Novartis drivers has declined by 38%.

In 2012, Novartis further strengthened driver safety programs outside the United States. A global driver safety e-learning tool was introduced to provide even more rigorous training for thousands of associates around the world. The program includes video-based e-learning in which drivers encounter real-life simulations on their own roads, in their own language. Each driver has to complete six training modules every year.

The new driver safety program was piloted by drivers from Sandoz and the Pharmaceuticals Division in Mexico, as well as Sandoz associates in Poland. Both countries registered a sharp decline in the number of accidents, contributing to continued reduction in Group-wide LTIR during 2012.

ASSOCIATES BY REGION AND SEGMENT AS OF DECEMBER 31¹

	United States		Canada and Latin America		Europe		Asia/Africa/Australasia		Total	
	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011
Pharmaceuticals	11 352	12 869	4 569	4 557	26 784	26 338	18 563	16 763	61 268	60 527
Alcon	9 472	9 347	1 960	1 794	7 629	7 410	4 813	4 436	23 874	22 987
Sandoz	2 066	1 442	2 618	2 532	16 403	15 595	4 748	4 808	25 835	24 377
Vaccines and Diagnostics	1 553	1 530	116	114	3 931	3 676	791	802	6 391	6 122
Consumer Health	1 880	1 797	1 016	890	3 583	3 567	2 273	2 036	8 752	8 290
Shared services	107	124	9	25	224	281	22	52	362	482
Corporate	274	133	21	25	874	686	73	57	1 242	901
Total	26 704	27 242	10 309	9 937	59 428	57 553	31 283	28 954	127 724	123 686

¹ Full-time equivalent positions at year end.



“We continue to make significant progress in driver safety,” Mr. Saveal said. “This is about taking responsibility for our own people, particularly associates in the sales force. So far we have more than 10 000 drivers around the world in state-of-the-art fleet safety programs.”

DEVELOPING GREAT LEADERS

In 2012, Novartis introduced a leadership framework designed to ensure that Novartis leaders have the right skills to manage in an increasingly complex market environment. This framework will serve as a backdrop for development programs and define a clearer path for associates to follow for personal and career development.

“I believe great leaders need to balance three elements: leading themselves, leading their teams and leading the business,” said Joseph Jimenez, Chief Executive Officer and member of the Executive Committee of Novartis.

“Being a good leader starts with being able to manage yourself. It means being authentic and aware of how your actions affect others. It also means continually challenging yourself to learn and develop, and to have the relentless will to deliver superior results. Great leaders also act with the highest integrity – leading with both courage and humility.”

Leading a team, Mr. Jimenez added, means inspiring and empowering others to excel. “It also means developing the people and teams, and encouraging collaboration across the company for shared success.”

Leading the business involves defining how you will compete in your sector to win against the competition. It involves setting a strategy that is clear for the organization, and giving each associate a line of sight to their role in delivering that strategy. “Most importantly, leaders need to set a clear direction for sustainable growth, building upon patient and customer insights to drive innovation,” Mr. Jimenez said.

The framework for leadership fosters behaviors that will benefit all Novartis associates, not only leaders. One distinctive dimension is a heightened focus on self-awareness – understanding one’s own impact, and using feedback and reflection to refine skills. This element is a focus of mentoring programs that serve as a complementary tool for development of leadership and interpersonal skills.

“In all mentoring programs people have the opportunity for self-reflection and to learn more about themselves – how to ask for and take feedback, and how to act on this feedback to change their behavior,” said Juergen Brokatzky-Geiger, Ph.D., Group Head of Human Resources and member of the Executive Committee of Novartis. “Keeping up the momentum on mentoring supports our commitment to our people and sustains personal growth and engagement.”

CHANGE MANAGEMENT

Leaders also have an important role to play in managing change successfully. “Our industry is going through significant change right now, which can cause uncertainty,” Mr. Jimenez said. “But changes can also open doors to better ways of working and new opportunities for growth. When managed well, I believe change can be a positive experience for us and for all those we serve.”

The latest Global Employee Survey signaled a need to improve change management at Novartis. Associates can feel overwhelmed by the scale and accelerating pace of change, and respondents also asked for more prioritization as well as sufficient training and involvement of associates.

In 2012, a common methodology was rolled out in several parts of Novartis to help understand, implement and manage change, as well as to track the impact of changes on our people. The “ChangeEx” model is a disciplined and people-centric approach that highlights critical success

factors. For example, a clear, concise description of what will change helps to set consistent expectations. Leaders need to explain the case for change, including the consequences of not changing, and to outline specific actions – who does what, and by when. Critically, every associate must receive the right training. We now have a community of Change Practitioners who work alongside business leaders and project managers to ensure we are managing a change process that will lead to greater likelihood of realization of long-term business benefits of any major change.

To further build leadership capabilities, Mr. Jimenez and the Executive Committee of Novartis are playing an active role in initiatives to develop future leaders in fast growth markets. LEAD, a specialized leadership program sponsored by Mr. Jimenez, focuses on developing strong country-based talent, combining local business expertise with a global perspective. In its initial year, LEAD was targeted to BRIC countries (Brazil, Russia, India and China). In 2012, participation was expanded to include 10 additional growth markets.

Over a 12-month period, LEAD participants work together in small teams on business-critical projects, led by members of the Executive Committee of Novartis. Throughout the program, participants receive intensive coaching, mentoring and career development interventions.

INVESTING AT THE GRASS-ROOTS LEVEL

At the same time, Novartis is investing aggressively at the grass-roots level to build the next generation of commercial and scientific leaders in fast-growing markets, particularly Asia-Pacific and Latin America.

According to Rainer Boehm, Head Region AMAC (Asia, Middle East and African Countries) for Novartis Pharmaceuticals, emerging markets will account for more than half of the division's sales growth over

the next five years. Across the AMAC region, country organizations have formulated five-year transformational growth plans, focusing on what Mr. Boehm calls “down-to-earth operating necessities. Countries are deciding which sectors we need to be in, what capabilities we need to build, what new jobs we need to create, and what kind of talent we need to hire.”

The rapid pace of growth in AMAC countries is compressing the timetable for evolution of Novartis organizations in emerging markets. These organizations often begin as representative offices, operating in collaboration with a local distributor. The Middle East represents a significant population, and a large and expanding pharmaceutical market, Mr. Boehm said.

In Saudi Arabia, for example, the government is aggressively promoting development of a domestic pharmaceutical sector as a complement to the nation's flagship oil and gas industry. During 2012, Novartis upgraded its local organization in Saudi Arabia from a representative office to a full-fledged country pharmaceutical organization. The move will lead to significant investment but also will require new capabilities. Under an agreement with the Saudi government, Novartis will steadily increase the proportion of Saudi nationals in the new country organization. This underscores the commitment of Novartis to provide employment opportunities and invest in expansion of a skilled workforce.

STATE-OF-THE-ART PRODUCTION

Saudi Arabia is not an isolated case: Novartis is playing a key role in ambitions to develop national healthcare industries across the Asia-Pacific region, including investments unveiled during 2012 to further strengthen links between Novartis and Singapore.

For example, Alcon, the eye care division of Novartis, opened a new site in Singapore for production of ophthalmic solutions and

suspensions. In a separate accord, Novartis and Singapore's Economic Development Board announced a five-year extension of support for the Novartis Institute for Tropical Diseases (NITD), the Singapore-based research center focusing on “neglected” infectious diseases. Novartis also announced plans in 2012 to construct a state-of-the-art biotechnology production site in Singapore. The new facility will focus on manufacturing based on cell-culture technology, and will complement rapid expansion in China and India.

The concentration of four Novartis manufacturing sites in Singapore has spurred yet another leadership development initiative – this time focused specifically on technical operations, or TechOps. A new Novartis TechOps Academy, expected to open in 2013, will offer talented associates a fast track into the global technical operations network. Over five years, participants will rotate among the Singapore sites, and gain hands-on experience in four different manufacturing environments, from production of pharmaceuticals and contact lenses to the new biologics facility.

“We believe it will be an enormously attractive opportunity for people who want to build a career in technical operations,” said Christopher Snook, Head Group Country Management and Novartis Country President, Singapore. “We often speak about our scientific and commercial communities and constituencies, but it is important to build those for manufacturing as well – especially with quality such an important consideration today.”

NOVARTIS HEALTH, SAFETY AND ENVIRONMENT (HSE) DATA 2012

	Novartis Group ¹		Pharmaceuticals		NIBR		Alcon ²		Sandoz		Vaccines and Diagnostics		Consumer Health ³	
	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011
HSE personnel	494	487	212	207	32	26	58	66	121	127	36	26	22	24
Lost-time injury and illness rate (LTIR)	0.14	0.19	0.12	0.13	0.01	0.09	0.17	0.33	0.15	0.18	0.09	0.17	0.27	0.21
Total recordable case rate	0.45	0.61	0.43	0.54	0.45	0.57	0.57	0.88	0.36	0.52	0.34	0.55	0.50	0.62
Total production (1 000 t)	213	221	33	29	0	0	78	69	85	85	0.2	0.3	17	37
Contact water use (million m ³)	17.2	17.1	3.9	4.1	0.6	0.6	2.8	2.7	8.3	8.3	1.1	1.0	0.5	0.4
Energy use (million GJ)	19.3	19.3	5.4	5.4	1.3	1.3	3.0	2.9	7.5	7.7	1.6	1.5	0.6	0.6
Emissions														
Effluent discharge (million m ³)	17.7	18.0	3.9	4.1	0.6	0.6	2.3	2.4	8.3	8.3	1.3	1.1	1.4	1.5
COD into water (1 000 t)	4.0	3.9	0.8	0.7	0	0	0	0	3.1	3.0	0	0	0	0
Sulfur dioxide SO ₂ (t)	47	71	8.3	3.7	0.4	0.5	2.1	2.1	35	64	0.1	0.1	0.1	0.4
Nitrogen oxide NO ₂ (t)	294	317	93	102	10	11	50	51	119	129	13	13	10	11
Halogenated VOCs (t)	110	147	1.0	2.1	6.8	6.8	0	0	102	138	0	0	0	0
Non-halogenated VOCs (t)	934	1 071	227	233	27	25	51	65	617	718	1.1	1.1	11	29
GHG Scope 1, combustion and process (1 000 t)														
	458	462	130	136	19	17	66	63	183	189	43	39	17	18
GHG Scope 1, vehicles (1 000 t)														
	174	192	88	101	0.1	0.1	40	47	27	27	4.2	4.2	7.1	7.8
GHG Scope 2, purchased energy (1 000 t)														
	1 019	1 049	213	220	80	79	263	265	330	353	95	91	38	41
Operational waste														
Non-hazardous waste not recycled (1 000 t)	41	48	6.7	7.3	1.6	1.6	5.3	6.1	8.4	8.8	16	21	3.0	3.6
Hazardous waste not recycled (1 000 t)	91	94	63	65	1.2	1.2	0.8	0.9	23	23	1.2	1.3	1.9	2.2
Non-hazardous waste recycled (1 000 t)	53	48	13	12	1.4	1.4	12	13	22	17	1.6	1.9	2.5	3.2
Hazardous waste recycled (1 000 t)	94	87	20	20	0	0	5.3	2.4	68	64	0.1	0.1	0	0

¹Novartis Group includes Novartis Corporate

²Alcon data includes CIBA Vision, which was previously part of Consumer Health

³Consumer Health data includes Animal Health and OTC

For more information on Health, Safety and Environment at Novartis, please see www.novartis.com/hse2012





To the Audit and Compliance Committee of the Board of Directors of Novartis AG, Basel

We have performed assurance procedures to provide limited assurance on the following aspects of the 2012 Corporate Responsibility (CR) reporting of Novartis AG and its consolidated subsidiaries (Novartis Group).

SUBJECT MATTER

The subject of our assurance procedures related to the data and information disclosed in the consolidated CR reporting of Novartis Group for the year ended December 31, 2012 was limited to the following:

- Reporting processes with respect to the CR reporting and CR key figures as well as the related control environment in relation to data aggregation of CR key figures.
- CR key performance indicators on page 66, the “Novartis Access to Healthcare Programs 2012” figures on page 73, and the “Novartis Health, Safety and Environment (HSE) Data 2012” on page 82 as published in the “Novartis Annual Report 2012” (CR indicators).

CRITERIA

The management reporting processes with respect to the CR reporting and CR key figures were assessed against Novartis Group internal policies and procedures, as set forth in the following:

- Corporate Citizenship (CC) Policy including CC Guidelines and the Code of Conduct.
- Procedures, by which CR and Health, Safety and Environment (HSE) data is gathered, collated and aggregated internally.

RESPONSIBILITY AND LIMITATIONS

The accuracy and completeness of CR indicators are subject to inherent limitations given their nature and methods for determining, calculating and estimating such data. Our Assurance Report should therefore be read in connection with Novartis Group guidelines, definitions and procedures on the reporting of its CR performance.

The Board of Directors of Novartis AG is responsible for preparation and reporting of CR information. Our responsibility is to provide limited assurance on the results of our work in accordance with the International Standard on Assurance Engagements (ISAE) 3000.

ASSURANCE PROCEDURES

Our assurance procedures included the following:

- **Evaluation of the application of Group guidelines**
Reviewing application of the Novartis Group internal CR reporting guidelines.
- **Management inquiry**
Interviewing personnel responsible for internal reporting and data collection at Group, divisional and local level.
- **Assessment of key figures**
Performing tests on a sample basis of evidence supporting selected HSE data concerning completeness, accuracy, adequacy and consistency.
- **Inspection of documentation and analysis of relevant policies and principles**
Inspecting relevant documentation on a sample basis, including Group CR policies, management reporting structures and documentation.

– Assessment of the processes and data consolidation

Reviewing the management reporting processes for CR reporting and assessing the consolidation process of data at Group level.

CONCLUSION

Based on our work described in this report, nothing has come to our attention that causes us to believe that the data and information outlined in the subject matter as defined above and disclosed in the CR reporting has not been prepared in accordance with Novartis Group internal policies and procedures.

PricewaterhouseCoopers AG



Peter M. Kartscher Raphael Rutishauser

Basel, January 22, 2013