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Annual Report 2008

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## New course

RIVM (National Institute for Public Health and the Environment) acted frequently in 2008. We were regularly in the news on account of cases like Q fever and the female Dutch tourist who contracted the Marburg virus. We made a crucial contribution to the re-examination of the case of the former Dutch nurse convicted of murdering a baby. We published our Second Healthcare Performance Report and we were proud to obtain the status of WHO Collaborative Centre for Nutrition.

But the consequences of the economy measures imposed on RIVM also became clear.

Under arrangements agreed by the coalition we will unfortunately have to downsize considerably and do our work with around 200 fewer people. This will have numerous consequences, both for the affected employees and for our organisation. For that reason the governing board gave considerable thought in 2008 to the RIVM's strategic course for the coming years.

At the same time there has been a great increase and alteration of the range of tasks assigned to us in recent years. We are playing an ever-greater role in providing services to the public because of our coordination

and orchestration function, for example for population screening and the prevention of infectious diseases. RIVM is no longer merely a research centre but a knowledge centre for authorities, professionals and members of the public. We are increasingly dependent on partners, internationally and nationally, when fulfilling our duty to society.

These developments call for a new course, one whereby a permanent focus on new collaboration possibilities is essential. New knowledge alliances will create new possibilities for retaining and reinforcing our leading position in public health and the environment.

Dr. Marc J.W. Sprenger  
Director-General RIVM

## Profile

The National Institute for Public Health and the Environment (RIVM) is a knowledge and research Institute dedicated to promoting public health and a healthy and safe living environment. The core tasks of RIVM, performed in a national and international context, support government policy.

### Tasks

- policy support
- national coordination
- prevention and intervention programmes
- provision of information to professionals and the general public
- knowledge development and research
- support for inspectorates

RIVM is responsible for providing impartial and reliable information to members of the public and professionals who work in the fields of health care, medication, the environment, and nutrition and safety. Our objective is to make optimum use of scientific knowledge and expertise and to make it accessible.

## Independent knowledge and research institute

The main commissioning bodies of RIVM are the Ministry of Housing, Spatial Planning and the Environment, the Ministry of Health, Welfare and Sport, the Ministry of Agriculture, Nature and Food Quality and the Ministry of Social Affairs and Employment. The institute also undertakes work for the Ministry of Defence and other ministries and departments, including inspectorates and international organisations like the European Union and the United Nations.

RIVM is committed to being a reliable partner for the authorities and professionals. However, our commissioning bodies have no influence over the arrangement and results of our work. The institute has an independent scientific position regulated under the RIVM Act. Scientific independence is an absolute precondition for RIVM, both in the performance of its tasks and in its considerations on whether to enter into strategic knowledge alliances. RIVM guarantees that there will be no conflicts of interest. RIVM may provide to third parties the available knowledge and information independently of clients.

The Scientific Supervisory Committee monitors the scientific quality of the institute. The committee consists of a number of highly respected scientists. A summary of the annual report of the Scientific Supervisory Committee can be found on page 30.

## Projects, Studies and Developments

## Costs of new medicines difficult to predict

It is difficult to predict the costs of new medicines according to RIVM research that compared cost estimates made earlier with the actual costs. Such estimates are thus of limited value when deciding whether or not to include a medicine in the reimbursement system. Variances between the estimated and actual costs are due in most cases to a different number of users (extramural) than expected. In the case of medicines with considerable indication dynamics, a growing user population or a great probability of off-label usage, it may be useful to policymakers to monitor the costs in the first years of usage so as to keep a realistic watch on how the costs develop.

## Effective widening of heel prick programme

On behalf of RIVM/Public Screening Centre, TNO Quality of Life evaluated the widening of heel prick testing from 3 to 17 disorders in 2008. The evaluation revealed that since enlargement on 1 January 2007 approximately 120 extra babies had been traced with serious disorders, such as sickle cell disease and metabolic disease.

The early identification of these diseases enabled the children to be referred quickly for further diagnosis and treatment. Starting treatment quickly is essential for these disorders that, if left untreated in the very first weeks after birth, can cause irreparable health damage.



## European benchmark

In September 2008 RIVM compared health in the Netherlands with that in other European Union member states. For the first time this was done using more than eighty European health indicators of such matters as illness, lifestyle and prevention. The research was conducted partly in pursuit of the ambition expressed by the Minister of Health, Welfare and Sport in 2006 to return public health in the Netherlands to the top five in Europe.

'Dare to Compare!' shows that while the Netherlands is on the right track, a substantial effort is still required in a number of fields to make the Netherlands one of the healthiest EU countries. The benchmark also revealed that a lot of health data is already available but that their quality and comparability could be improved.

## Infection with Marburg virus

A Dutch woman who contracted the Marburg virus while on holiday in Uganda died at the Leiden University Hospital on 11 July 2008. The virus causes haemorrhagic fever, a very serious and rare infectious disease. RIVM coordinated all measures that were taken to prevent the further spreading of the virus. Hospitals and municipal health authorities traced 130 persons who had been in contact with the woman during the contagious period. None was found to have been infected and after three weeks it was determined that the risk of further spreading was over.



## New Public Health Act

On 1 December 2008, the Infectious Diseases Act, the Public Health (Preventive Measures) Act and the Quarantine Act were packaged into a new law called the Public Health Act. This altered the obligation to report infectious diseases. The number of notifiable diseases was increased from 36 to 42, for example. The new mandatory notification applies to diseases brought into the National Vaccination Programme. Additionally, it is now a requirement for laboratories as well as attending physicians to report certain communicable diseases to the municipal health authorities. RIVM produced a practical manual to support physicians and heads of laboratories in applying the amended notification obligation. As the coordinator of the National Vaccination Programme, RIVM uses the information to conduct daily monitoring, assess the effectiveness of vaccinations and identify national epidemics early.

## Asian tiger mosquito

Asian tiger mosquitoes have regularly been found in the Netherlands with some regularity since 2005. The mosquito is a potential vector of infectious diseases like dengue. The Asia tiger mosquito was observed on 32 occasions in 2008, always in greenhouses of commercial gardeners that import the Lucky Bamboo, an ornamental plant, from China. However, there are no indications that the insect has established itself in the Netherlands. In addition to Lucky Bamboo, the mosquito spreads globally mainly through the trade in used car tyres. RIVM organised an expert meeting in 2008 to reassess the public health risk of the import of the Asian tiger mosquito in the Netherlands and to provide advice on possible additional measures.

## Cleaner air thanks to smoking ban

Figures from a joint study conducted by the Food and Consumer Product Safety Authority and RIVM showed that on average the concentration of particulate matter (PM 2.5) in the air of a smoke-free room was nine times lower than in rooms where smoking still occurred. This means that the smoking ban in hospitality establishments is helping to prevent the harmful effects of passive smoking. For the time being there will be no ban on smoking in vehicles in the presence of children. RIVM research found that just smoking one single cigarette in a car can cause PM 2.5 values higher than the values found in hospitality establishments with intensive smoking.

## Playing with your health

Young people with an unhealthy lifestyle do not generally confine themselves to one unhealthy lifestyle factor, according to an RIVM report entitled 'Playing with your Health' that shows that these are frequently the same young people who drink and smoke, for example. In the long term this behaviour damages health. It also has an immediate effect on the health, welfare and development of young people. Some young people who regularly consume a lot of alcohol have already permanently damaged their health. For several reasons it is important to pursue health-promoting interventions among young people.

## Skin allergy caused by consumer products

The Netherlands has a relatively large number of people with a skin allergy compared with other allergic disorders such as asthma, hay fever and food allergy. A large proportion is due to exposure to allergenic substances contained in consumer products. The biggest causers are nickel in jewellery and aromatic substances in cosmetics. These findings emerged from research conducted by RIVM for the Food and Consumer Product Safety Authority. The research confirms the importance of the authority's supervision over compliance with prohibitions, limits and labelling requirements for allergenic substances in the interests of consumer protection. RIVM has now started a multi-year research programme for the authority to acquire more knowledge about consumer products and constituent ingredients that can cause allergies.

## Growing number of visitors to kiesBeter.nl

The public healthcare portal called kiesBeter.nl attracted more than 3 million visitors in 2008, an increase of roughly 50% compared with the previous year. The site provides information about care, medical insurance and health and gives members of the public an insight into their choices in these fields.

RIVM runs kiesBeter.nl for the Ministry of Health, Welfare and Sport. The portal was introduced towards the end of January 2005 to support the overhaul of the Dutch healthcare system in 2006.

## Second Healthcare Performance Report

RIVM published the Second Healthcare Performance Report on behalf of the Ministry of Health, Welfare and Sport in 2008. The report uses more than 100 indicators to provide a picture of the performance levels of the Dutch healthcare system. The 2008 report concluded that the Netherlands has an accessible healthcare system and that year-on-year spending on health care has increased by 5% since 2004. In many respects the quality of care is high, but internationally the Netherlands does not excel. Matters requiring improvement in the Netherlands include the coordination of care, patient safety and the effectiveness of care. The Second Healthcare Performance Report was presented in June 2008 during the WHO Ministerial Conference on Health Systems where it was enthusiastically received as best practice for the methodology and reporting on national quality levels.



## Attention to food safety

Foodborne infections are still a frequent occurrence. Each year contaminated food makes at least 700,000 people ill and causes 80 deaths. This makes permanent attention to food safety essential. The food industry, but also the consumer, can be alert to avoiding foodborne infections. With this in mind, RIVM compiled in 2008, in association with the Food and Consumer Product Safety Authority (VWA) and the Netherlands Nutrition Centre, a toolkit with guidance on how to prevent foodborne infections. The toolkit includes material for a campaign called 'What you need to know to eat safely!' All professionals who wish to provide guidance thus possess the same widely supported and correct information for the public. In 2008 RIVM also published new information about the consequences of foodborne infections for society in the National Public Health Compass ([www.nationaalkompas.nl](http://www.nationaalkompas.nl)).



## Nanotechnology in perspective

Nanotechnology makes it possible to control matter on the very smallest scale. Materials can be made stronger, more elastic or more scratch-resistant, for example. Hundreds of products containing nano-particles are now on the market. However, there is still a considerable lack of knowledge for assessing the potential risks for people and the environment. With this in mind RIVM established the Knowledge and Information Centre for Nanotechnology Risks in 2008. In its first guidance report entitled 'Nanotechnology in perspective', the centre identified the risks in the four main fields of application: medication and medical technology, food, consumer products and the environment. RIVM conducted research into the most effective methods for studying the toxicity (including eco-toxicity) of nano-materials.

## Prevention of serious overweight

People severely overweight (obese) are more frequently ill and use more care services than people with a healthy weight. They also live less long than those with a healthy weight. So viewed over their entire life obese people actually consume less care than people with a healthy weight. The upshot is that prevention of obesity produces significant health gains but on balance does not lower the costs of healthcare. This emerged from RIVM analyses published in the medical journal PLoS Medicine in February 2008.



## Off-label prescription of medicines

A survey conducted by RIVM among 464 general practitioners and 406 specialists and an examination of medical guidelines of physicians revealed that the off-label prescription of medicines is a commonplace part of medical care. This involves prescribing medicines for disorders or for groups of patients for which they have not been approved in principle by the Medicines Evaluation Board. Depending on the specialisation involved, 22 to 45% of the physicians said that they 'regularly' do not know whether a prescription is off-label. Experimental behaviour was found to occur 'seldom to occasionally'. The professional group expressed an urgent need for a central notification and evaluation system.

## WHO Collaborating Centre for Nutrition

In September 2008 the WHO (World Health Organization) awarded RIVM the status of WHO Collaborating Centre for Nutrition. Through this collaboration WHO seeks to obtain extra expertise and experience. The new centre will advise the European head office in Copenhagen with regard to nutrition, exercise, overweight and health. It is a virtual centre whose activities will be embedded in regular work to the fullest possible extent. Examples of activities are the performance of studies into the cost-effectiveness of interventions, analysis of policy documents, validation of lifestyle interventions, participation in expert meetings, providing advice on European WHO projects and writing reports and articles.

## Nuisance caused by AWACS at Geilenkirchen

The Ministry of Housing, Spatial Planning and Environment commissioned RIVM to conduct an exploratory study in 2008 into the health and exposure effects of air traffic around the NATO air base at Geilenkirchen. The results revealed that approximately 20% of the inhabitants in the Dutch region around the German air base experienced serious nuisance caused by noise. The noise may possibly result in weaker learning abilities among children. Adults in the Onderbanken region of the Netherlands may possibly run a risk of higher blood pressure.



## Infants and young children do not eat sufficiently healthily

RIVM monitored the food consumption of almost 1,300 children aged between two and six. The report that was published in 2008 revealed that infants and young children in the Netherlands do not eat enough vegetables, fruit, fish and fibre-rich foods. Moreover, the food consumed by young children contains too many saturated fats. The intake of vitamins and minerals was found to be sufficient except for vitamin D and folic acid. The unhealthy nutrition of these children can result in overweight and in later life chronic diseases. Policies are necessary to encourage healthy eating patterns among children.





## Re-evaluation of data concerning prosecuted nurse

RIVM re-examined the case of a former female nurse sentenced to life imprisonment in 2003 for murdering a baby by administering an overdose of digoxin. The extensive details at RIVM's disposal were not indicative of digoxin poisoning. The baby most probably died a natural death. Based on this conclusion the nurse was released in April 2008 and the Supreme Court reopened her case on 7 October 2008.

## Corus hair research

During a television programme about Corus on 18 May 2008 mention was made of research into concentrations of metals found in the hair of children. In response to parliamentary questions RIVM was asked to assess whether the found concentrations constituted a health risk. It was concluded that the research in question was unsuitable for assessing potential health effects of Corus. The results of wider research into the relationship between emissions, local air quality and the health of people who live near Corus are expected in 2009.



## Intensification of cooperation between ministries

RIVM possesses knowledge that can be useful in the policy fields of the Ministry of Social Affairs and Employment and the Ministry of Transport, Public Works and Water Management. In January 2008, RIVM signed a master contract with the Ministry of Social Affairs and Employment covering opportunities for cooperation in the field of hazardous substances, workforce participating and physical safety. For the Ministry of Transport, Public Works and Water Management, RIVM acts as a national expertise centre for external safety and the classification of substances. Hazardous substances occupy a central position. These are substances that fall within the criteria of the Globally Harmonised System for the Classification and Labelling of Chemicals (GHS). RIVM also acts as an adviser to and represents the Ministry of Transport, Public Works and Water Management at United Nations conferences on the transport of dangerous substances and the GHS.



## Vaccination against HPV

In November 2008, Ab Klink, Minister of Health, Welfare and Sport, informed the Lower House of Parliament that from 2009 the HPV vaccination would be included in the national vaccination programme. Infection with human papillomavirus (HPV) is benign in most cases, but a few strains of the virus can subsequently cause cancer. Vaccination provides protection against the two types, HPV 16 and HPV 18, which together account for approximately 70% of all cases of cervical cancer in Europe. Each year this disease causes the death of more than 200 of the 600 women who contract it in the Netherlands.

RIVM oversees the National Vaccination Programme and coordinates the HPV vaccination campaign carried out by municipal health authorities. The Institute is responsible for monitoring and conducting accommodating research.

## Organisation and Financial Data

## Cooperation arrangements

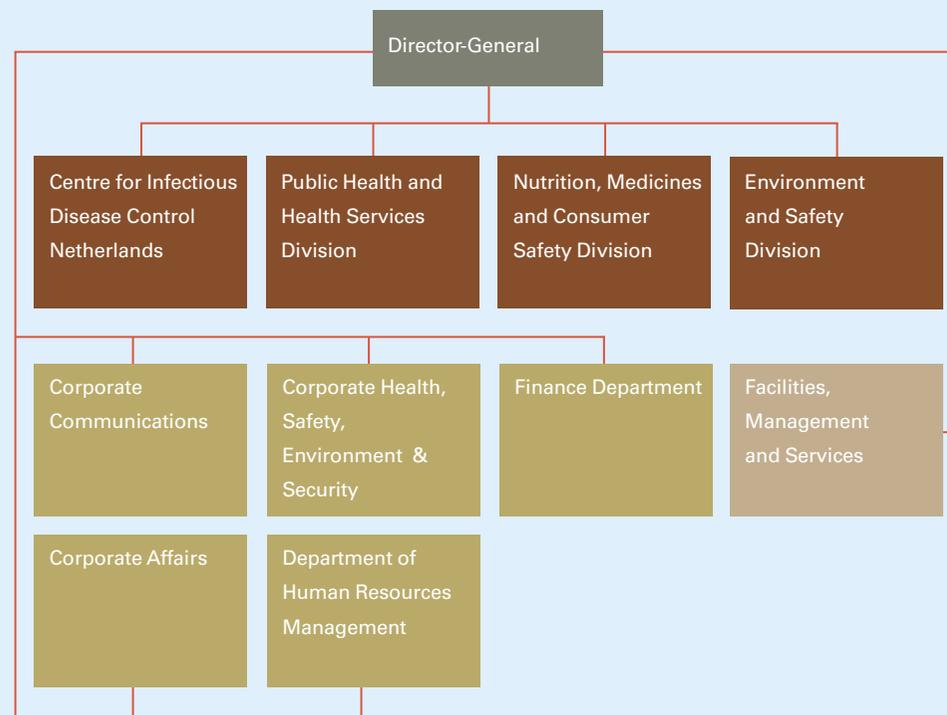
Nationally and internationally, RIVM has numerous cooperation partners. In the Netherlands RIVM cooperates with research institutes like TNO, NIVEL, RIKILT, KNMI, the Water Department of the Directorate-General for Public Works and Water Management, Deltares, SenterNovem and various universities. Contacts with planning agencies are also important. RIVM also maintains close and functional ties with municipalities, provinces and municipal health authorities.

Internationally, RIVM is a member of various networks that support the European Commission. RIVM also cooperates with institutes like the European Centre for Disease Prevention and Control (ECDC) in Stockholm, the European Food Safety Authority (EFSA) in Parma, the Organisation for Economic Co-operation and Development (OECD) in Paris, the European Medicines Evaluation Agency in London (EMA), the European Directorate for the Quality of Medicines (EDQM) in Strasbourg and the European Environment Agency in Copenhagen. RIVM further maintains close contacts with the World Health Organization (WHO) and the World Bank.

## Annual IANPHI conference at RIVM

RIVM was proud to host the annual conference of the International Association of National Public Health Institutes (IANPHI) held at Bilthoven from 12 to 15 October 2008. This organisation, formally established in 2006, now has 50 members. The global network is dedicated to improving and optimising public healthcare and acts as a catalyst for developing national public health institutes. The agenda for the conference at RIVM included many interactive sessions on illness monitoring and strategic planning. The programme also offered considerable opportunities for networking and for exchanging knowledge and information.

## Organisation chart on January 2009



Director-General: Dr Marc Sprenger

Deputy Director-General: drs. Niek Parlevliet

Director of the Centre for Infectious Disease Control: Prof. Dr Roel Coutinho

Director of the Public Health and Health Services Division: Dr Moniek Pieters

Director of the Nutrition, Medicines and Consumer Safety Division: Dr André Henken

Director of the Environment and Safety Division: Dr Reinout Woittiez

# Financial statements 2008

Balance sheet at 31 December 2008 (all amounts in EUR x 1,000)

	31-12-2008	31-12-2007
<b>Assets</b>		
Intangible fixed assets	1.332	923
Property, plant and equipment	8.414	6.550
- land and buildings	-	-
- installations	1.857	1.960
- other fixed assets	6.557	4.590
Inventory	13.876	-
Accounts receivable	13.012	9.616
Other receivables	3.243	44
Outstanding and prepaid items	3.879	1.998
Project sales not yet invoiced	3.714	5.339
Cash and cash equivalents	129.126	70.622
<b>Total assets</b>	<b>176.597</b>	<b>95.092</b>
<b>Liabilities</b>		
Equity	9.724	10.270
- operating reserve	13.391	8.342
- reserves required by law		0
- undistributed profits	3.667	1.928
Provisions	16.803	12.750
Accounts payable	10.246	8.075
Other debts	1.322	465
Instalments received in advance	47.271	36.907
Accrued liabilities	91.230	26.625
<b>Total liabilities</b>	<b>176.597</b>	<b>95.092</b>

Itemised statement of income and expenditure over 2008 (all amounts in EUR x 1,000)

Itemisation	A Amount originally budgeted	B Actual amount	C = B - A Difference
<b>Income</b>			
Revenues from Ministry of Health, Welfare and Sport (owner)	15.774	13.578	2.196-
Revenues from Ministry of Health, Welfare and Sport (commissioning body)	67.074	107.524	40.450
Revenues from Ministry of Housing, Spatial Planning and the Environment	45.351	50.010	4.659
Revenues from Ministry of Agriculture, Nature and Food Quality	1.350	632	718-
Revenues from other departments	2.625	4.764	2.139
Revenues from third parties	29.000	144.967	115.967
Interest received	500	4.029	3.529
Released from provisions	0	4.243	4.243
<b>Total income</b>	<b>161.674</b>	<b>329.747</b>	<b>168.073</b>
<b>Expenditure</b>			
Operating expenses	157.941	318.608	160.667
Interest paid	213	428	215
Depreciation	3.520	5.559	2.039
Added to provisions	-	8.819	8.819
<b>Total expenditure</b>	<b>161.674</b>	<b>333.414</b>	<b>171.740</b>
<b>Balance</b>	<b>0</b>	<b>3.667-</b>	<b>3.667-</b>

## Note on the financial statements

Income and expenditure were both considerably higher than budgeted in the year under review. This stemmed from the system prescribed for drawing up the budget, which may include only firm undertakings given by primary clients. The stated figures include the income and expenditure of contracts awarded and performed during the fiscal year. In 2008 RIVM took over the provincial inoculation records offices for the performance of the National Vaccination Programme. The associated financial consequences could not be estimated in the budget, but have been included in the stated figures and balance sheet at year-end 2008.

The 2008 results were attributable mainly to:

- a slightly more favourable operating result than expected at the sectors;
- higher accommodation expenses as a result of building alterations and renovations;
- higher interest earnings;
- creation of provisions to cover future costs.

## Staff

At year-end 2008 RIVM employed 1.625 people, including the new Regional Coordination Programmes unit (112 people). In the year under review 130 employees left RIVM and 87 new employees were appointed. Our workforce includes 47% with an academic degree and 27% postdoctoral researchers. RIVM employs 19 part time professors.

Women account for 46% of the workforce. The average age of RIVM employees is 44 and the average length of service is 11 years.

The sick leave rate was 3.8% in 2008. Short-term absence due to illness accounted for roughly half this percentage. The sick leave rate is well below the maximum standard set for RIVM.

## Highlights from the Annual Environmental Report

RIVM shares the site with the Netherlands Vaccine Institute (NVI) and the Netherlands Environmental Assessment Agency (PBL). The new environmental permit was issued for the entire site and the organisations share various environmental services such as wastewater and waste collection. Consequently, the annual report provides a picture of RIVM, NVI and PBL. Pollution of Surface Waters Act

RIVM obtained a combined new permit (general permit) under the Environmental Management Act and Pollution of Surface Waters Act in 2008. The permit includes a company environmental plan legally valid for 2007-2010. The plan includes various improvements such as a heat/cold storage system, soil protection measures and a central system for registering chemicals.

The environmental performance of RIVM, NVI and PBL in 2008 was determined as follows:

- Compared with 2007 water consumption increased by 4.6% to 135,600 m<sup>3</sup> due to an increase in the sterilisation process.
- The quantity of pollution units in waste water decreased to 665 as a result of fewer discharges of organic substances.
- The total quantity of waste decreased by 14% to 801 tons compared with the year before. This is mainly because of the decrease in the quantity of autoclaved laboratory waste, manure and sawdust, and old iron.

RIVM, NVI and PBL spent approximately €5 million on environmental, energy and water costs in 2008 (including energy consumption, waste and levies for waste water).

## Scientific Supervisory Committee

The task of the Scientific Supervisory Committee is to monitor the scientific quality of RIVM. It does so by maintaining supervision over and advising on the level and quality of performed research and the quality system of RIVM. Based on its findings the committee issues a statement each year regarding the quality of research and the quality system of RIVM. The committee reports its opinion to the owner of RIVM.

RIVM had an eventful year in 2008. The institute was regularly in the news. The perils surrounding the Marburg virus were a cause of concern for many people. The dynamics of RIVM were also in evidence during the meetings. The committee was informed of current matters such as Q fever. The committee was also informed about the forthcoming centenary of RIVM and its future accommodation.

The Scientific Supervisory Committee was informed extensively about the consequences of discharging the responsibilities assigned to RIVM by central government. To meet these responsibilities RIVM will pursue a development in which it conducts less research of its own and instead has more tasks performed under its overall responsibility. By so doing the institute has opted to continue its work across the full spectrum, but by performing less in-house research and by commissioning more research.

As a result the research base within the institute will become narrower and the institute will be more dependent upon the results of research conducted elsewhere. This is a cause of concern for the committee from the point of view of scientific quality. The changes mean that the institute will operate at a greater distance from the hands-on research. Moreover, RIVM will have in this situation less direct control over the quality of the research and the results. It will be up to the management of the institute to agree arrangements with the parties involved to assure the quality of research (and results) performed elsewhere. The committee will keep a watch on this matter.

In 2008 the Public Health Status and Forecasts (PHSF) and the Healthcare Performance audits at the Public Health and Health Services Division was completed. Moreover, the scientific audit of the measuring and modelling of environmental quality at the Environment and Safety Division were completed. The committee is satisfied with the positive results of the audits of the PHSF and Healthcare Performance. The committee intends to discuss further the evaluation of the policy function and the positioning of the PHSF and Healthcare Performance. The audit also produced recommendations for further development of the Healthcare Performance.

The committee has concluded on the basis of the provided information, the positive results of the PHSF and Healthcare Performance audits and the talks held with the management of the institute that RIVM has succeeded admirably in assuring the scientific quality of its research. The committee will continue to watch over developments concerning the responsibilities of RIVM and their potential influence on scientific quality, also in relation to its international activities.

## Colophon

**Text**  
RIVM Communications

**Project coordination and final editing**  
RIVM Communications

**Design**  
RIVM Publishing

This annual report is also available in Dutch.

Please e-mail RIVM at [info@rivm.nl](mailto:info@rivm.nl) for additional copies of this report.

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