

MINISTRY OF HEALTH

Science, Technology and Innovation in Health

Brasília – DF
2008

The Secretariat of Science, Technology and Strategic Inputs

Conceived during the 1st National Conference on Science and Technology in Health, held in 1994, the Secretariat of Science, Technology and Strategic Inputs (SCTIE) was finally established in 2003. Among the achievements over the past five years, are detached the institutionalization of Science and Technology (S&T) under the Ministry of Health and the consolidation of this one as the main articulator of actions of science, technology and innovation in health policies.

Technical Cooperation

In August 2007, the Ministers of Health, Jose Gomes Temporão, and of Science and Technology, Sergio Rezende, renewed the agreement of technical cooperation that, since 2004, has made possible the fomentation to researches in health and technological development projects. Most actions triggered by SCTIE counts with the participation of the National Council for Scientific and Technological Development (CNPq) and the Research and Projects Financing (Finep).

Other important partners of SCTIE in these actions are the state foundations for supporting research and the state secretariats of health and science and technology.

For implementation of actions, programs and studies aiming the development of the Health Industrial Complex (CIS), was signed in December 2007, the Cooperation and Technical Assistance Statement between the National Bank for Economic and Social Development (BNDES) and the Ministry of Health.

The technical cooperation with the Coordination for the Improvement of Higher Education Staff (Capes) was also formalized through a cooperation and technical assistance term, signed in May 2008. The document aims to guarantee the integrality of the action from health and education sectors.

The Pan American Health Organization (PAHO) has also established important technical cooperation in SCTIE strategic projects.

Institutional Highlights

National Policy on Science, Technology and Innovation in Health (PNCTIS)

Instrument that directs all actions conducted by the Secretariat of Science, Technology and Strategic Inputs, the PNCTIS, approved during the 2^a National Conference on Science, Technology and Innovation in Health, in July 2004, is an important part of the National Policy of Health. Its main objective is to contribute in a way that the national development occurs in a sustainable manner, stimulating the production of new knowledge targeted to the Unified Health System (SUS) needs.

National Agenda of Priorities in Health Research (ANPPS)

The ANPPS purpose is to meet the needs of the national and regional health and induce, in a selective way, the production of knowledge, material goods and services in strategic areas for the development of social policies in force. The document is composed by 24 sub-agendas, which represent the priority areas of research. Each of these sub-agendas, in turn, includes various themes and lines of research.

According to the National Policy of Science, Technology and Innovation in Health, "the agenda is a technical and political process under permanent construction". The same document establishes that "the Ministry of Health must guide the construction process of the National Agenda of Priorities in Health Research, due to its strategic role in the arrangement of the national effort of Research on Health". Almost 4 years after the 2nd. National Conference of Science, Technology and Innovation in Health, the SCTIE is revising the document. The intention is to evaluate the fomentation accomplished by the Secretariat throughout these years and present a new agenda proposal, compatible with SUS nowadays needs.

The participative process adopted in the construction of the agenda's first version will be reproduced in the preparation of a new proposal, which will come from the debate with managers, researchers, professionals and users of SUS. The initiative is aimed at ensuring the coherence between the research's priorities and SUS's new challenges.

More Health: Right of All 2008/2011

The More Health: Right of All 2008/2011 represents a health policy radical reorientation, aiming to strengthen actions focused on the improvement of health conditions and population quality of life, and also contribute with the acceleration of the country's economic growth. This is a decisive plan to overcome the idea that investments in health only represent costs, and consolidate the sector as a field that creates jobs, income and foreign currencies.

Seven axes compose the More Health Program. One of them is related more directly to the SCTIE. It is the Health Industrial Complex. The inclusion of this alliance was due to the need to strengthen the productive sector of health, making it less vulnerable or dependent on external market. The intention is to increase the competitiveness in enterprises innovations and public and private producers of health industries, promoting a vigorous process of substitution of products import and inputs for health and giving more knowledge density focused on the needs of health.

The aim is also, with More Health, to regulate and alter the existing law relating to purchases, to allow the strategic use of the purchasing power of the State for innovative products essential for health, to ensure the competitiveness of local production.

In addition to actions related to Health Industrial Complex, SCTIE, also acts on the fomentation to research in health, in technology assessments and in knowledge management.

Investing in scientific and technologic development for SUS

The Secretariat of Science, Technology and Strategic Inputs (SCTIE) spent, between 2003 and 2007, more than R\$ 410 millions in the fomentation to research in health. It is important to emphasize that these resources are incremental to the other areas of the Ministry of Health, Ministry of Science and Technology, the Ministry of Education, the National Bank for Economic and Social Development (BNDES) and the state agencies of fomentation. Some of these agencies, moreover, allocate resources from their budgets and from the Sectoral Funds of Health and Biotechnology in projects supported by the Secretariat. The SCTIE holds two forms of fomentation.

One of them is the nationwide fomentation, through the publication of edicts on priority themes for the SUS.

For these edicts were intended, since 2003, R\$ 292 millions. There are also national projects which, given their special characteristics, were hired directly and mobilized around R\$ 67 millions.

The other form is the decentralized fomentation, by the state of the federation, which, through the Research Program for the SUS: shared management in health contributes importantly to the regional inequities reduction in science and technology area in health. Since 2003, were invested approximately R\$ 51 millions in the Program.

The whole fomentation process is held in a democratic way, with the participation of researchers, managers and professionals of health, in a long journey that begins with workshops on priorities for research, passing through the examination and contraction of projects, the evaluation of the results achieved and culminates in the process of incorporation of those results in the SUS.

The goal of evaluation is that the knowledge generated contributes to the improvement of SUS management practices and to improve the health situation of the Brazilian population. This process gives transparency to the fomentation management realized by SCTIE, socializes the product measured and promotes approximation between managers and researchers of health.

R\$ 65 millions for research in transmissible diseases

Brazil has had good successes in combating transmissible diseases. The smallpox eradication and the poliomyelitis elimination, enabled through the development of vaccines, are good examples and reinforce the importance of scientific research focused on transmissible diseases. We cannot forget, however, that these diseases continue to be an important cause of morbid-mortality.

With more than 22% of the total researches financed by the Secretariat of Science, Technology and Strategic Inputs, the sub-agenda of the transmissible diseases is the first in number of projects supported between 2002 and 2007. The amount invested in this area was R\$ 65 millions and the main topics discussed were: sexually transmitted diseases (STDs) and AIDS, hantavirus and other viruses, and neglected diseases.

More than one hundred studies on AIDS and STDs

The National AIDS/STD Programme is a worldwide reference. Its most striking characteristics, such as universality, the integration among prevention and assistance and the guarantee of full attention are reflexes of legal principles of the Unified Health System. This is a good example of practical use of the scientific knowledge on health towards the Brazilian population.

These pathologies, however, are still an important cause of the morbid-mortality in the country. Therefore, the SCTIE invests in scientific and technological development in the area, always looking for alternatives that might improve the assistance for people who have AIDS or have some other sexually transmissible disease. Up to 2007, more than one hundred researches on this theme were financed, with resources exceeding R\$ 25 millions. The Secretariat aim is to support the quality continuous improvement of actions and interventions in this area.

Strategic areas of research

The Secretariat of Science, Technology and Strategic Inputs (SCTIE) supports projects related to the various themes and lines of research provided in the National Agenda of Priorities in Health Research (ANPPS) and is important to consider that many of these studies are transversals and, thus, serve more than a sub-agenda.

Neglected diseases: priority

The neglected diseases are a priority for the Secretariat of Science, Technology and Strategic Inputs which, in 2004, financed 33 researches about Dengue using call for bids.

From the definition process of priority research, in 2006, it has directed more than R\$ 20 million to funds for research in malaria, Chaga's disease, Dengue, Leishmaniasis, tuberculosis and Hansen's disease. In 2008, the Secretariat carried out another workshop to the prioritization of research themes and lines, with a prevision of investment of more than R\$ 17 million to fund new studies on these six neglected disease.

SCTIE invests in researches non transmissible diseases

Due to various social and economic changes, there were major changes in the epidemiological profile of the Brazilian population in the last decades. One of them was the predominance increase of non transmissible diseases that have become, from the 60's, the most frequent causes of deaths in Brazil.

Moreover, it represents more than 70% of health assistance spent in the country, with growing trend. Before this, the Secretariat of Science, Technology and Strategic Inputs has prioritized the investment in scientific and technological development in that area. Since 2003, were intended approximately R\$ 85 millions for research on non transmissible diseases. It is the second sub-agenda of the National Agenda of Priorities in Health Research regarding the number of funded projects (17% of the total). Examples of non transmissible diseases: cardiopathy, neoplasia, hemopathy, acute nephropathy, hypertension and diabetes.

ELSA Brazil: the largest epidemiological study of the Latin America

The Longitudinal Study of Adult Health – ELSA Brazil was created from a call for bid of the Ministries of Health and, Science and Technology. It is a multicentric cohort study that aims to investigate and monitor men and women with age between 35 and 74 years old for a period of up to 20 years. The objective of ELSA Brazil is to fill the gaps of knowledge about the incidence of chronic diseases – to mention the diabetes and cardiovascular diseases – and their risks factors on the Brazilian population.

In total, there will be 15 thousand volunteers for the project, workers and academic from six public institution of higher education and research from the South, Southeast and Northeast regions of Brazil: Oswaldo Cruz Foundation (Rio de Janeiro), São Paulo University (USP) and the federal universities of Bahia (UFBA), Espírito Santo (UFES), Minas Gerais (UFMG) and Rio Grande do Sul (UFRGS).

During 2008, the Investigation Centers linked to the Study are being inaugurated and interviews about general health conditions being made, besides physical and laboratorial exams. The data collected in both phases will be analyzed to verify the relation with chronic diseases. The prevision is that, in five years, partial data of the study will be available to be divulged.

Research will reveal the profile of women and children's health

Aiming at collect information to elaborate demographic and health and nutrition indicators of women in fertile age and children under five years, the Ministry of Health of Brazil invested R\$ 7.7 million at the National Research of Demography and Health of Child and Woman (PNDS). The resources are provided by the secretariats of Science, Technology and Strategic Inputs and, Health Care and were transferred through a technical cooperation with Unesco.

Starting in 2006, the National Research of Demography and Health of Child and Woman (PNDS) had a national representation embracing the five macro regions of Brazil, both at urban and rural areas, in a total of 14.617 households. Besides the household interviews with more than 15 thousand women and approximately five thousand children, there were also mensuration of high and weight, blood sample collection to check vitamin A and hemoglobin and information collection about the iodine parameters available in the salt consumed by the families investigated.

Divulged in 2008, the data collected in the research highlighted the fecundity rates and reproductive aspects of women with age between 15 to 49 years, as well as the access to medication and health service, characteristics about sexual activity, anticonception, pregnancy and delivery assistance. Another aspect of the research was the feeding safety of the groups investigated, including the nutritional state of the children.

The results of the PNDS-2006 will contribute to the improvement of public policies and will be shared with the academic community, managers, health professionals and the society. The research was provided through a partnership between the Ministry of Health of Brazil, the Brazilian Center for Analysis and Planning (Cebap), higher education institutions – São Paulo University and State University of Campinas – and the Brazilian Institute of Public Opinion and Statistic (IBOPE).

Researches evaluate the Mental Health Policy

Estimate made by the World Health Organization (WHO) reveals that, in 2020, in Western countries, the mental disorders will be the main cause of the loss of years of life with a good health. In Brazil, these diseases already take the lead among the causes of retirement by disability.

The scientific production will contribute to the strengthening of policies geared to the prevention, the treatment and the psychosocial rehabilitation of people with mental disorders. It was with the intention to strengthen the mental health research, which the Secretariat of Science, Technology and

Strategic Inputs fomented, between 2003 and 2007; more than 90 projects with resources of approximately R\$ 9 million. In 2005, it was launched a specific publication that financed 22 searches.

A new call for BID, launched in August 2008, allocate R\$ 6 million to project in this area.

In search of violence and accidents reduction

The violence and accidents are major preoccupation sources for health. Besides configuring one of the biggest causes of mortality in the country, its consequences entail high costs for the SUS. Only with internments the expenses in 2004 were approximately R\$ 349 million. Several actions of the Ministry of Health have as purpose the reduction of damage and death caused by violence and accidents. The support for the studies development is an important element of these efforts. Between 2003 and 2006, the SCTIE directed about R\$ 7 million for the support of more than 100 projects.

In specific publication about violence, accidents and trauma, launched in 2004, were included 61 researches. The positive impact of the initiative could be observed in the Final Evaluation Seminar of the publication, held in 2007, when they were presented the significant results, including requests of patents and the mapping of violence in all regions of the country.

To overcome the technological vulnerability

In recent years, Brazil has become more dependent on foreign countries with regard to access to new drugs and medicines, health equipment, materials (prostheses and orthoses), hemoderivated, vaccines and inputs for diseases diagnose. The accumulated deficit increased from approximately R\$ 700 million a year, in the late '80s, to a level exceeding R\$ 5 billion in 2007. Apart from its dependence on imports, the little coordination between the public and private sectors, the high technological gap, the fluctuations of international finance market and the global competitive strategies, not always compatible with national interests, let the national health policy in a vulnerable situation.

SCTIE's role in the development and support to actions that contributes for the strengthening of the national system of innovation is essential to reverse this situation. In order to promote the strengthening modernization of the strategic producers of the Health Productive Complex, were drafted, in 2007, two programs for promoting the production and innovation in the ambit of SUS. The first, called the National

Program of Fomentation to the Public Production and Innovation in the Health's Industrial Complex, is addressed to all producers

Public of medicines, immunobiological and hemoderivated, considered by their characteristics and strategic relevance, priority for investment and implementation of actions geared to the development of the Industrial Complex. The second of Health, National Program for Qualification, and Innovation in Production Equipment and Materials of Use Health in the Health Industrial Complex. The second, the National Program for Qualification, Production and Innovation in Equipment and Material of Health Usage in the Health Industrial Complex, has a target audience the industry of medical products.

Both programs come to a series of established priorities by a number of national strategic policies for the country, with emphasis on Industrial Policy, Technology and Foreign Trade (PITCE), the Policy of Biotechnology Development and the National Policy on Medicinal Plants and Phytoteraphy. The programs will be implemented by the SCTIE in an integrated and coordinated form with the instance of the Ministry of Health more involved with the theme, especially the areas responsible for actions of health and pharmaceutical care, combining the technological demands and priorities of the SUS with the demands of the target-markets of the productive sector.

Besides, by 2007, more than one hundred projects were financed, in an approximately amount of \$ 117 million. Check, hereinafter, some of these projects.

Brazilian Pacemaker

With financing of approximately R\$ 1.7 million, it is underway the project that aims the creation of a Brazilian pacemaker. The device is indicated for people with cardiac arrhythmia - alteration in the rhythm of the heart's beats - which can lead to death. The group, formed by the Genius Institute of Technology, the Dixtal Biomedical and Bioengineering Division of the Office of the Heart (Incor / USP), has already completed the development of the chip that will incorporate the equipment. Since 2007, the industrial prototype is in development. After that, it will still be necessary to make the prototype smaller and begin the clinical trials to confirm its effectiveness.

The national production of pacemakers is of great importance for Brazil. In the decade of 1970, Brazil has come to dominate the technology of fabrication of devise, but the Brazilian industry faced difficulties in maintaining the technological development rhythm, and the country started to import the product. Only in 2005, Brazil imported 18 thousand devices to the Unified Health System, at a cost of R\$ 165 million. The completion of the project will make the country less vulnerable.

The development of the Brazilian pacemaker will also have the support of the Studies and Projects Funding Agency (Finep), and the participation of researchers from universities in Brazil and Uruguay.

Drugs coming from the sea

Despite the huge Brazilian marine biodiversity, studies with algae for fabrication of drugs and cosmetics are still incipient in the country.

The publication launched in 2006, destined R\$ 2.9 million to support research projects and innovation with that purpose. Four studies are being developed by the federal universities of Minas Gerais, Paraíba, Rio de Janeiro and the University of São Paulo. The researches have the purpose to investigate in the algae the presence of bioactive substances with potential antioxidant, antibiotic and anti-inflammatory and with capacity of absorption of the ultraviolet radiation.

To improve the quality of orthopedic implants

They are among the goals of the Multicentric Network of Orthopedic Implants Evaluation (Remato), the improve of the quality and increase of the durability of the orthopedic implants used in the country, to avoid that the patients undergo to a second surgery to replace the material due to poor quality, wearing and lack of resistance.

The system received more than R\$ 13 million for the financing of 15 research projects, which aim to install the national capacity for the evaluation of orthopedic implants.

With the initiative, it is expected the reduction of the spending in the health system. In 2004, before the launch of the publication, were designed around R\$ 103 million for orthopedic implants.

Bioproducts for therapeutic use

Produce national medicine using substances found in Brazilian fauna and flora is an important strategy for the reduction of the dependence of Brazil in relation to the importation of pharmaceutical inputs.

Eight research projects selected in a call held in 2005 by the ministries of Health and the Science and Technology have that purpose. Were allocated resources in the order of R\$ 7 million.

The researches are investigating the application of boldo extract for the production of analgesic and anti-inflammatory, the analgesic activity of the rattlesnake venom typical from the Central West, the utilization of the plant popularly known as foot-of-cow in the treatment of diabetes, and the use of different plants in the development of drugs for the treatment of cancer, asthma, depression and Alzheimer's.

National production of derived of the blood

The Ministry of Health spends around US\$ 120 million with the importation of hemoderivated to attend to the patients of the SUS. Among them the factor VIII and IX of the blood coagulation, used in the treatment of people with hemophilia A and B, respectively. Among the strategies of the country in its quest for self-sufficiency, is in the national production of concentrates of these factors. In that sense, the SCTIE fomented three researches on development of the factors VIII and IX of blood coagulation, which, together, brought together resources of about R\$ 1.8 million.

The research with hemoderivated have the differential that increases its complexity: its natural raw material, the human plasma, is obtained with donations of blood. The production of factors of blood coagulation through genetic recombination, an alternative to usage of human plasma, is among the goals of the projects encouraged.

Self-sufficiency in vaccines

The National Program for Vaccine Competitiveness (Inovacina), established by the Ministry of Health in 2006, has by finality confer to Brazil self-sufficiency in fabrication of vaccines. The expectation is that in 2008 the country produces 100% of the doses that uses against poliomyelitis.

Result of a wide process of discussion involving managers, producers and academics, the Inovacina is developed by the Oswaldo Cruz Foundation (Fiocruz), in partnership with the National Sanitary Surveillance Agency (Anvisa), the Ataulpho de Paiva Foundation, the Butantan Institute and the Technology Institute of Parana.

The SCTIE fomented three projects with a total value exceeding R\$ 14 million, aiming the development or improve priority vaccines for the National Program of Immunizations - as the pentavalent (against diphtheria, tetanus, pertussis, hepatitis B and Haemophilus influenzae) and immunizing against meningococcal meningitis, hepatitis A, canine leishmaniasis and rabies.

New drugs and diagnostic kits

The SCTIE launched in 2006, a public call for projects support in research of drugs, medicines, inputs, equipment and diagnostic kits. The objective was to stimulate the national competitive production of therapeutic product and diagnostic of neglected diseases or of major economic impact on the public health system, such as AIDS, viral hepatitis, toxoplasmosis, rubella, Chagas disease, herpes, measles, syphilis, dengue, tuberculosis, leishmaniasis, leptospirosis and malaria. Were contemplated 28 projects, that receive resources exceeding R\$ 56 million.

Public production of medicines

Since 2003, the SCTIE has invested in projects of reform, amplification and modernization of areas intended to the production and quality control, as well as the acquisition machinery and equipment of public producers of medicines, reaching in 2007 investments more than R\$ 320 million.

Development or technologies transfer

Agreements related to the production of the following strategic inputs are in progress: interferon alpha 2b, erythropoietin, peginterferon, NPH insulin, hemoderivated, efavirenz, vaccine against rotavirus, combined vaccine against meningitis C, quadrivalent vaccine against HPV, vaccine against pneumococcus.

Stem cells help in the treatment of heart diseases

The researches with adult stem cells have provided hope to bearers patients of certain diseases. In Brazil, the more advanced researches with this kind of cells involve the heart diseases. Studies in this area have already gone through laboratory and animal stage and now will start the clinical research. In that sense, the SCTIE is funding the Multicenter Randomized Study of Cellular Therapy in Heart Diseases (EMRTCC), an innovative project that takes many challenges.

This study will be fundamental to prove the efficacy already suggested by isolated researches, as well as evaluate the applicability and future substitution of traditional treatments by these therapies in the Unified Health System. Its goal is to evaluate the effectiveness of the autologous implantation of the bone marrow stem cells in 1.200 Brazilian patients with the following heart diseases: dilated cardiomyopathy, Chaga's Heart Disease, ischemic heart disease and acute myocardial infarction. Coordinated by the National Institute of Heart Diseases of Laranjeiras, the EMRTCC received an investment from the Ministry of Health of R\$ 13 million.

Contribution to surpass the regional inequalities in Science and Technology in health

The SUS Research Program: shared management in health - PPSUS has three main objects: foment researches whose results are applicable to the SUS; strengthen the management capacity of the science policy and technology in health in the states of the federation; and contribute to the surpass of the regional inequality in science and technology in health, attending to the strategies of the National Policy on Science, Technology and Innovation in Health.

For this reason, the PPSUS financed, by 2007, more than a thousand research projects, with resources exceeding R\$ 51 million. The Program also perform an important role in the increasing of the number of masters and doctors in health and in the formation of a scientific culture in the states.

A conquest of the program is the increase of the state participation in the investment in science and technology in health. Proof of this is that the financial contribution of the states - a key aspect of PPSUS - has been expanding significantly. The state participation doubled, and is more than approximately R\$ 6.5 million in the biennium 2004/2005 to more than \$ 13 million in 2006/2007.

The Ministry of Health, the national financing of the Program, has partnerships in the federal ambit, the National Council for Scientific and Technological Development (CNPq), and in the state ambit, the care foundations to the research (FAPs) and the secretaries of health (SES) and science and technology. The CNPq has an important role in the development of PPSUS in national level, providing political support, technical and administrative. The FAPs act as executor agents in its states. With the SES, participate in all operational steps, since the definition of priority lines of research, until the final evaluation of projects.

The evaluation of researches aims to compare the results achieved with the goals originally proposed. It is a participatory process involving researchers, managers and external consultants. The first seminars of final evaluation of the PPSUS were performed in 2007, in nine states, with the presentation of more than 150 research projects contracted in the biennium 2004/2005.

The Program was considered by the National Council of FAPs as the best ongoing initiative involving the partnership between federal and state entities.
parceria entre entes federal e estaduais.

Technologies evaluation in health: important managing tool

In a context guided by continuous spending elevation, by the growing production of knowledge and by changes in the epidemiological profile of the populations, the managers are pressured by users, health professionals, judges and promoters and industry representatives to the fast incorporation of new products and processes in the Unified Health System. That makes the technologies production evaluation in health (ATS) an increasingly important tool for managers in the sector. The ATS subsidizes the decision, avoiding three major problems: the use of technologies that have no proven effectiveness; of other with no effect or negative effects; and the non utilization of effective technologies.

The Ministry of Health, aiming to meet the demand of managers by reliable information, has been working for the institutional strengthening of ATS. Four milestones record this effort. In 2003, it was established the Council of Science, Technology and Innovation in Health (CCTI). Coordinated by SCTIE, the body has as its attributions implant the National Policy of Science, Technology and Innovation in Health, define guidelines and promote the evaluation of new products and processes. Under the CCTI, it was formed the Permanent Work Group in Evaluation of Technology in Health (GT ATS) to organize and monitor the activities of ATS of interest to the SUS. The GT involves all departments of the Ministry, the National Sanitary Surveillance Agency (Anvisa), the National Agency of Supplemental Health (NSA), the National Council of Secretaries of Health (Conass) and the National Council of Municipal Health Secretaries (Conasems).

In 2005, the Department of Science and Technology created the General Coordination of Technologies in Health Evaluation, with the attribution to implement, monitor and disseminate the ATS in the SUS. Since then, the coordination issued about 60 technical notes on technology and led the process of the Methodological Guidelines for Elaboration of Scientific-Technical Advice for the Ministry of Health definition. Besides, it have also been promoted in partnership with the Secretary of Health Attention seven post-graduation courses in health technology management, for the formation of about 50 specialists and 120 teachers.

In 2006, the Decit became a member of the International Network of Evaluation Agencies of Technology in Health (INAHTA) and participated in international forums that subsidized the structuring of the area in SCTIE. This international

cooperation, through the Decit, represents a big step of the Ministry of Health to increase the access of the managers to the best scientific evidence to support the decisions.

In the same year, it was constituted the Commission for the Incorporation of Technologies (Citec), responsible for managing the process of technologies incorporation, developing routines, flows and recommendations for the decision making, and of stimulating the formulation of clinical protocols. The Commission works under the coordination of the Secretary of Health Attention (SAS).

National Policy on Health Technology on Management

The Ministry of Health, through the Secretariat of Science, Technology and Strategic Inputs, coordinated the elaboration of a proposal for the National Policy on Health Technology on Management. The document is the result of discussions held under a committee, set up especially for that purpose in 2005, and of a public consultation, made in 2006.

The Policy aims to "maximize the benefits of health to be achieved with available resources, ensuring access of the population to effective and safe technologies, in equity conditions."

Knowledge Systems in Clinical Research and ATS

To approximate the clinical research to the priorities of the SUS, a joint action of the ministries of Health and Science and Technology implemented in 2005, the National System of Clinical Research in the Teaching Hospitals.

Were set aside R\$ 35 million for the System, which aims to standardize the development of all phases of clinical trials of drugs, procedures, equipment and devices for diagnoses. Besides, the Ministry of Health has led the creation of the ATS' Brazilian Network (Rebrats), which will organize the demand and implementing of studies, avoiding duplication of efforts and contributing to the definition of evaluation priorities.

R\$ 12.5 million to new studies in clinical research and ATS

The Ministry of Health and the Ministry of Science and Technology designed, in 2007, approximately R\$ 12.5 million for evaluation studies of technology in health, including clinical

research.

For the realization of these studies, a public call was made that selected nine projects on three issues: the effectiveness of surgical techniques for morbid obesity, the cost-effectiveness of the similar insulin to the human for diabetes type I diabetes and effectiveness of therapies available to the visceral and cutaneous leishmaniasis.

It was also launched an publication, which included 22 studies on four themes: cost-effectiveness of strategies for supervised treatment of tuberculosis; impact of judicial actions in the National Policy on Pharmaceutical Assistance, cost-effectiveness of high cost medicines for chronic hepatitis B , dyslipidemias and rheumatoid arthritis; and tracking of interventions of high complexity in cardiology.

Management of Knowledge in Health

Given the complexity of health care organizations, their managers need valid information, reliable and updated to decide consciously. The scientific research is an important source of this kind of information.

The utilization of scientific knowledge is not, nevertheless, a simple process. There are a number of factors permeating the relation between science and management that must be observed to understand how the managers can benefit from the scientific production.

These factors relate to both the production of research and researchers, as to the technical decision-making and the managers.

In 2007, the Ministry of Science and Technology created the General-Coordination of Knowledge Management, which aims to promote the utilization of scientific knowledge by managers, professionals and society.

The central strategy of encouraging to the utilization of the results of research in the adopted management by SCTIE is the continue approximation between researchers and managers, in a context that promotes the frank debate between these actors and the access to information by appropriate channels and languages.

An important action in 2007 was the realization of the event Research for Health: development and innovation for the SUS, which occurred in Brasilia. It was a moment of rich debate about the present situation and the perspective of science, technology and innovation in health in Brazil. Before the event, were held meetings of networks, workshops of evaluation of result searches, an international seminary of evaluation of health technologies and a seminar on scientific information dissemination. The discussion on the scientific dissemination involved representatives of the journal Science Today Online, the Portal Scidev.net, of the

Health Channel / Fiocruz, among others.

It also stand the cooperation with institutions as Conass, the Conasems, the Latin-American and Caribbean Information of Health Sciences Center (BIREME) and the Oswaldo Cruz Foundation, which has been of great importance to bring the scientific information manager.

Besides, the SCTIE participates in international projects of scientific dissemination, with emphasis on the Evidence-Informed Policy Network (EVIPNet), network coordinated by the World Health Organization (WHO) which proposes strategies to stimulate the culture of scientific evidence utilization among managers.

Science and Technology Incentive Award for the Brazilian Unified Health System (SUS) 2008

Created in 2002, the Award is an incentive instrument to the scientific-technologic production addressed to SUS. Besides recognizing the scientific merit of the researches, the Award expands the divulgation of research results, supporting its incorporation by the public and private health services. Under the categories of PhD, published paper, master and monograph, there were 1,730 registered from 2002 to 2007. In this period, 23 research works were awarded and other 115 received honors mention, focusing in various themes as: neglected diseases; oral health; medication; women, child, elderly and family health; health management; and technological development and innovation. In 2008, SUS, one of the main public polices of social inclusion in Brazil, commemorated 20 years of existence. To celebrate this historical moment, the seventh edition of the Award included a new category, "Well succeeded experiences of scientific knowledge incorporation into SUS", to award researches that participated at the construction process of the Brazilian Unified Health System (SUS).

Scientific events contribute to the dissemination of knowledge

Released every six months, the call for public support for Scientific Events in Health is another initiative that helps for the dissemination of new knowledge. The demand for support, in 2007, was of 290 proposals in the first calling and of 197 in the second, totaling 487 proposals.

In both calls, the SCTIE funded a total of 54 conferences, seminars, meetings, journey, conferences and symposia. Until 2007, R\$ 6.9 million has been already allocated to the sup-

port of 164 events.

From 2008 on, the call for bids started to recommend that in all events should have the participation of not only researchers and academics, but also managers and professionals of SUS.

The novelty will facilitate the exchange of experience between academics and administrators and bring the two communities.

Health Researches

An initiative of the Department of Science and Technology (Decit), Health Researches is an electronic tool that offers access to research projects supported since 2002, by the Ministry of Health in partnership with other institutions. The data bank Health Researches will be part of the Science and Technology in Health Information System (SISC&T), which first module was initiated with the administration of the registration for the Incentive Award in Science and Technology to SUS 2008.

The SISC&T is a system of data that, besides the Award, will be responsible for the registration management to SUS Research Program: shared management in health, to the Consultants Bank and to information related to researches financed by Decit, as calls for bid and results, among others.

Link: www.saude.gov.br/pesquisasaude

Dollar conversation rate - annual average for the years studied:

2002 - R\$ 2,85 to US\$ 1,00

2003 - R\$ 3,14 to US\$ 1,00

2004 - R\$ 2,92 to US\$ 1,00

2005 - R\$ 2,47 to US\$ 1,00

2006 - R\$ 2,23 to US\$ 1,00

2007 - R\$ 1,95 to US\$ 1,00

2008 - R\$ 1,69 to US\$ 1,00

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