Thematic Report to EU-CELAC Senior Official Meeting[1]:

Health

EU-CELAC SOM Working Group on Health

Brazil – Spain

Contenido

[1] This thematic report has been prepared by the Senior Official Meeting Working Group on Health (SOM WGoH) with EU-LAC Health support following the guidelines of ALCUE NET. We acknowledged ALCUE NET for the preparation of this template in order to facilitate the unified reporting of all Working Groups.

1. Objective of the thematic report

The main objective of this report is providing the EU-CELAC Senior Official Meetings (SOM) representatives with the insights found by the **SOM Working Group on Health** (**SOM WGoH**) and its supporting project **EU-LAC Health** (http://eulachealth.eu/) as to serve to the purpose of promoting the advance towards a JIRI on the area of health.

SOM WGoH was created on April 2013 co-leaded by Spain and Brazil and the following countries stated their interest to be included in this working group: Argentina, Dominican Republic, Mexico, Panama and Uruguay (from CELAC side) and Belgium, Finland, France, Germany and Portugal on the European side.

2. Bi-regional Cooperation Activities in the Thematic Area

a. Thematic area background in Latin America, Caribbean and the European Union

Bi-regional cooperation in Health Research

Health research stands as one of the major areas of expenditure in both regions, al together representing around 40,000 millions € in 2010[2].

The EU FP7 (7th Framework Programme for Research and Innovation, from 2007-2013) has been a huge opportunity and the highest funding source for the European and International R&D, as well as the unique model agreed by EU Member States and Associated Countries to set some common Research and Innovation priorities around which to structure and enhance EU competitiveness and progress.

The EU through FP7 provided a new approach to its scientific and technological research policy by introducing international cooperation as an essential strategy in each of their specific programs.

EU-LAC bilateral relations have already come a long way; however the effective incorporation of Spain and Portugal to the EU in 1986 meant a decisive boost to the cooperation and not only on the commercial side. The 2009 European Commission's Communication: "The European Union and Latin America: Global Players in Partnership" proposed to establish a permanent dialogue in S&T to make progress in developing an EU-LAC Knowledge Area.

EU-LAC Research collaboration through EU Framework Programme

Argentina, Brazil, Chile, and Mexico have a bilateral agreement with the EU, and have engaged in specific tasks towards improving cooperation in research.

International Cooperation in Health follows three main strategies:
• General opening of all topics to any country in the world, in which International Cooperation Partner Countries can participate in projects and receive funding.
• Specific International Cooperation Actions, that address specific issues that partner countries face or have a global character, on the basis of mutual interest and benefit
• Programme Level Cooperation on coordinated topics with certain countries, mainly those with bilateral agreements.

LAC participants in Health FP7 funded projects

The LAC region has been active in participating in FP7 projects.

LAC countries participate in about 16% of the total health research projects funded by the EC in the FP7. The amount received through the health research projects is of 14.58 Million Euros, equivalent to 21.1% of all

[2] Røttingen J-A, et al. (2013). The Lancet, Vol. 382 No. 9900 pp 1286-1307

funds received. Brazil leads the group with 20 projects and 4.3 Million Euros, followed by Argentina with 11 projects and 2.37 Million Euros. Colombia is in third place followed by Mexico Bolivia, Chile and Peru.

Health and S&T priorities and future actions

Health is not just a value in itself - it is also a driver for growth. Only a healthy population can achieve its full economic potential. The health sector is driven by innovation and a highly qualified workforce. Health-related research and development has the potential to reach 0.3% of GDP. The healthcare sector is one of the largest in the EU: it accounts for approximately 10% of the EU's gross domestic product and employs one in ten workers, with a higher than average proportion of workers with tertiary-level education. Health therefore plays an important role in the Europe 2020 agenda.

Horizon 2020

Horizon 2020 is the financial instrument implementing the Innovation Union, a Europe 2020 flagship initiative aimed at securing Europe's global competitiveness. Running from 2014 to 2020 with an € 82 billion budget, the new EU's programme for research and innovation is part of the drive to create new growth and jobs in Europe. This instrument has an important part of its budget (€ 6.8 billion) dedicated to the Societal Challenge 1: Health, demographic change and wellbeing.

Trans-national collaboration instruments in the EU

The EC is increasingly promoting the alignment of the national funding interests through some transnational instruments. Some relevant initiatives worth mentioning are:

- European Research Area Networks (ERA-NET): the ERA-NET scheme was designed to provide targeted support for the coordination and mutual opening of national and regional research programmes.

- Joint Programming Initiatives (JPI) are to pool national research efforts in order to make better use of Europe's public R&D resources and to tackle common European challenges more effectively in a few key areas. Examples of JPIs in the health area are: "Joint Programme in Neurodegenerative Diseases (JPND)", "A Healthy diet for a Healthy life (HDHL)", "Joint Programming Initiative in Antimicrobial Resistance" (JPIAMR) and "More Years, Better Lives – The Potential and Challenges of Demografic Change".

- Research Infrastructures (RI) have the overall objective to optimise the use and development of the best research infrastructures existing in Europe. RI offers new possibilities for transnational coordination of research activities not only in Europe but globally.

- EDCTP was formed by a European Parliament and European Council decision in order to pool resources, funding and activities to achieve a greater impact against three poverty-related diseases. It combined political will and defined health priorities of both the developing and developed world. EDCTP is co-funded by the European Commission and European Member States under Article 185 of the EU Treaty to promote a more integrated approach to health research among European countries.

Other Bi-regional funding initiatives

CYTED

The Ibero-American Program of Science and Technology for Development (CYTED) was created in 1984 through an inter-institutional agreement signed by 19 countries of Latin America, Spain and Portugal.

CYTED has the objective to contribute to the harmonic development of the region through cooperation mechanisms between research groups of the universities, research centres and innovation companies of the Ibero-American countries towards the achievement of scientific results that are transferred to productive systems and social policy.

Through its existence, CYTED has generated 210 thematic networks, 197 coordinating actions, 4 research consortia, and 33 innovation projects with an annual participation of over 10,000 scientists.

Specifically in health, and since its origin, CYTED has approved 45 networks where over 1070 research groups of Ibero-America have participated with an estimated 4,100 researchers involved. The mean life of a network is four years, and the estimated funding is around €5.9 million.

Spain has coordinated 14 networks. Regarding the consortia in health research, 17 projects have been financed (Spain 5, Argentina 3, Brazil 2, and Chile, Bolivia, Colombia and Mexico 1) with an estimated total amount of €13.6 million. Topics cover basic research as well as public health research. The program does not finance clinical trials.

European research centres in LAC

The Institute Pasteur is based in Montevideo, Uruguay, and established there in 2004 by a joint agreement between the governments of France and Uruguay and the Institute Pasteur of Paris.

Considering Germany's support, the Dallmann-Laboratory/Argentina, Pierre-Auger-Observatory/Argentina and quite some with biomedical focus like Max-Planck-Partner-Institute for biomedical research in Buenos Aires, Heidelberg Centre in Santiago de Chile, CETA-RS/Brazilian, Fraunhofer Chile – Centre for Systems Biotechnology are examples of the interest of European Countries to work in the region.

Bilateral agreements

Countries in the LAC region have several bilateral agreements signed with European countries. The Ministries of Health or the Ministries or Councils of Science and Technology have signed these agreements. The agreements do cover a wide array of actions, and sometimes the bilateral academic support (fellowships, etc.) is part of these agreements. Ministries of S&T are more active to promote the signing of agreements.

Interaction between EU-LAC policies for Aid Development and Health Research cooperation

Scientific knowledge and Innovation has been considered a relevant instrument for aid development because of its capacity to provide effective innovation to combat main challenges in global health.

The main instrument governing the European Commission Cooperation with other world's regions is the Development Cooperation Instrument. The EC is currently the main donor in the LAC region.

National Cooperation Aid Agencies develop a leading role as far as global health research is referred. The recipients of the funds are mostly Multilateral Public Agencies or Private Platform for Medical Product Developments. The main European agencies of cooperation involved on health research development projects are: NORAD, SIDA, DFID, DANIDA, BMZ/GIZ, AECID, and Irish Aid. As an important Philanthropic

European based organizations, The Wellcome Trust, Foundation Meraux, and UBS Optimus Foundation should be mentioned.

3. Cooperation Actions and instruments: Road Map for implementation

The thematic project **EU-LAC Health** (Annex I contains list of partners and advisors) has as main objective the design of a roadmap towards a future Joint Initiative on Health Research and Innovation, with the aim of intensifying the cooperation between EU and CELAC on health research and coordinating by means of thematic alignment of programmes. Many activities have been already carried out since October 2011, when EU-LAC Health project started.

Action	Activity	Work progress	Instruments	Indicators + Impact
Mapping	➢State-of- Play Analysis by **EU-LAC Health**. Main contents of the analysis: • Analysis of the political framework of S&T collaboration between EU and LAC • Health research systems in LAC • Analysis of the situation of S&T on health in EU • Identification and analysis of the health research funding programmes	**State-of- Play Analysis** Finalized Document (June 2012) See Annex II containing Summary and Introduction of de document.[3]	**Instruments used:** • Surveys to the EU and LAC countries • Literature review • **EU-LAC Health** State of Play Analysis Workshop (Rio di Janeiro, March 2012) http://eulachealth.eu/past-events/#spw-workshop	- EU-LAC Health Deliverable to the EC: State-of- Play Analysis Document - Published Article BioMed Central: "National research for health systems in Latin America and the Caribbean: moving towards the right direction?" http://www.health-policy-systems.com/content/12/1/13 - Accepted Article RECIIS-Electronic Journal of Communication, Information & Innovation in Health: "The Development of relationships in science, technology, research and innovation in health between the EU and LAC countries"

[3] State-of-Play is a document Restricted for EU-LAC Health Consortium and EC

Action	Activity	Work progress	Instruments	Indicators + Impact
Scientific areas/topics	➢ Selection of scientific areas of interest: • Chronic diseases • Cancer • Neurological diseases and stroke • Infection • Prevention of diseases and promotion of well-being • Health and social care services research ➢ Assembly of a Scientific Working Group (as an interim Scientific Advisory Board) per area http://eulachealth.eu/scientific-working-groups/ (Annex III) ➢ Elaboration of Draft Scientific documents on each selected area, presented at the EU-LAC Health 2nd Scenario Building Workshop (Rome, April 2013) http://eulachealth.eu/past-events/#2nd-workshop ➢ Selection of topics for ERANet-LAC (see point 4), started at **EU-LAC Health** 1st Roadmapping Workshop (Mexico City, October 2013) http://eulachealth.eu/past-events/#3rd-workshop ➢ Definition and prioritization of topics, presented at EU-LAC Health 2nd Roadmapping Workshop (Madrid, Feb 2014)	**Draft of Scientific Research Agenda**, presented at **EU-LAC Health** 2nd Roadmapping Workshop (Madrid, Feb 2014) http://eulachealth.eu/past-events/#4rd-workshop	**Instruments used:** - Survey to the countries carried out by e-mail. - Survey results were presented and discussed at **EU-LAC Health** 1st Scenario building Workshop (Buenos Aires, October 2012) http://eulachealth.eu/past-events/#spw-workshop - Analysis of results: • burden of diseases • added-value - Selection of 6 top areas - SWOT analysis of three potential scenarios, carried out at **EU-LAC Health** 1st Scenario building Workshop (Buenos Aires, October 2012) **Potential instruments for future implementation:** • ERANet-LAC • H2020 • CYTED • Joint Initiative on Health Research and Innovation	- 25 replies to the questionnaire from 22 EU and LAC countries and 3 multi-country organizations : 166 areas of potential interest - Agreement among experts and policy-makers of LAC and EU on the interest of the selected scientific areas

Action	Activity	Work progress	Instruments	Indicators + Impact
Capacity Building	➢ Promotion of capacity building activities such as: • Scientific training, Exchange, Secondments • Training about international projects (Horizon 2020)	Foreseen activities	**Potential instruments for future implementation:** • ERANet-LAC • H2020: Marie Skłodowoska-Curie Actions • H2020: ERC grants • CYTED networks • Health -National Contact Points for H2020 • RIMAIS • EU-LAC Health • Joint Initiative on Health Research and Innovation	Potential increase in collaboration between researchers from EU and LAC
Innovation	➢ Creation of Stakeholders forum as a consultant body ➢ Innovation in the health care sector ➢ Definition of clear Intellectual Property Rights policies for the Joint Initiative		**Potential instruments for future implementation:** Collaborative projects with participation of clinicians as researchers Collaborative projects with participation of Academy-Industry	Knowledge and Technology Transfer
Other Actions	➢ Relation with other SOM Working Groups ➢ Definition of Open Access Policies ➢ **Definition of EU-CELAC JIHRI Governance**		**Instruments**: ALCUE NET EU-LAC Health EU-LAC Health	**Potential impact:** Enhanced and Coordinated EU-LAC research and innovation on health Serve as pilot for other thematic areas

Work Plan	
Activities	**Timeline**
Developing and discussing the EU-CELAC Joint Initiative on Health Research and Innovation and its Strategic Roadmap: • Refining Draft Scientific Research Agenda • Developing Governance rules • Roadmap for the implementation of the Joint Initiative on Health Research and Innovation	2014
Presentation , consultation and validation of the Draft Strategic Roadmap: • Definition of the Strategic Roadmap • Roadmap consultation to the countries • Validation of the Draft Strategic Roadmap EU-LAC Health *Roadmap Consultation & Validation Workshop* Elaboration of Final Strategic Roadmap	End of 2014
Scientific Research Agenda: Developing the 1st draft Work Plan	2014
Strengthen coordination of EU-LAC Health with related initiatives (H2020, ALCUE NET, ERANet-LAC, CYTED, Cooperation agencies, etc.), Increasing collaboration with other initiatives and supranational organisations such as European infrastructures, PAHO, GACD, IRDiRC	2014
Definition of an *Interim* Governance (Interim Governing Board (IGB) and executive support secretariat (SEC) to implement the validated Strategic Roadmap: Definition of Terms of Reference for taking part on the Governing Board	2015
Scientific participation in the Joint Initiative on Health Research and Innovation: Elaboration of Terms of reference for taking part on Scientific Advisory Board	2015
Terms of reference of Stakeholder participation in the Joint Initiative on Health Research and Innovation: Elaboration of Terms of reference for taking part on Stakeholder Advisory Board	2015
Scientific Research Agenda Proposal	2015

4. Formulation of topics to be considered in the activities of the ERANet-LAC project

EU-LAC Health, in collaboration with the EU-LAC Health Scientific Working Groups, has elaborated a Draft Scientific Research Agenda structured in 6 scientific areas. Extracted from the Draft Scientific Research Agenda, 18 topics have been prioritized by EU-LAC Health Scientific Working Groups (3 topics per area formulated by level of priority).

No order of priority has been established between the 6 different areas. The table below shows the 1st prioritized topic for each area.

Health Research Area	1st Topic
Chronic diseases	Evaluation of low-threshold interventions to tackle obesity, diabetes and other metabolic disorders in EU and LAC countries
Cancer	Improving the quality of care and quality of life of dying cancer patients
Neurological diseases and stroke	Healthy aging to combat neurodegeneration
Infection	Research in prevention of infectious diseases and promotion of well-being
Prevention of diseases and promotion of well-being	Management support health using mobile devices
Health and social care services research	Equity in the access to effective health and social care

The complete list of topics is included is the following:

Chronic diseases

Short introduction to the chronic diseases research area

Chronic diseases are non-communicable diseases or conditions that are of long duration and generally slow progression. The prevalence of chronic diseases has risen sharply in both EU and LAC countries during the last decades and they are by far the leading cause of mortality representing 60% of all deaths worldwide. Furthermore, 70% to 80% of healthcare costs are spent on chronic diseases. Collaboration between EU and LAC within the chronic disease field will focus on the metabolic syndrome and its associated disease states. Rationale for this focus is the high and still rising prevalence of obesity in both EU and LAC countries which is threatening the sustainability of health systems in both regions. Furthermore, obesity and associated disease states are largely preventable by life style changes and, therefore, are excellent conditions to study the feasibility of primary and secondary preventive measures.

Added value of EU-LAC cooperation in this area

The collaboration between EU and LAC is a unique opportunity to generate new knowledge and implement translational research due to the differences in cultural context, genetic background, population age, and type of health care system on 1) prevention programs, 2) studies about the pathophysiology of chronic diseases and 3) the efficacy of interventions. Both regions have unique experiences which complement each other: EU has a higher burden of chronic disease explained by population aging and earlier epidemiological transition; however, social conditions and health care systems are more favourable as compared to LAC to deal with this expanding burden. LAC is facing a chronic disease epidemic with health systems in an earlier stage of development. This characteristic allows testing treatment or prevention strategies under different experimental conditions. Also, migration fluxes exist between EU and LAC countries, a natural experiment to study the pathophysiology of these disorders.

Long-term (5-10 years) impact of EU-LAC cooperation in this area

Collaboration between EU and LAC provides a unique opportunity to evaluate and establish interventions that reduce the burden of chronic metabolic disease in both regions. By harmonizing study participant characterization and endpoint assessments, not only the overall efficacy of interventions can be tested but also differences in outcomes depending on cultural context, genetic background, population age, and type of health care system are evaluated. This is a prerequisite to translate study findings on chronic metabolic disease into clinical practice in a more region-sensitive way, i.e. some interventions might well work in selected LAC but not in EU countries and vice versa.

Chronic diseases: Specific call topic suggestion

TOPIC 1: TITLE	Evaluation of low-threshold interventions to tackle obesity, diabetes and other metabolic disorders in EU and LAC countries

Specific challenge:	Evidence-based interventions that can be provided at little cost - so-called low-threshold interventions - need to be established and evaluated to 1) tackle the chronic diseases epidemic and 2) keep treatment costs under control.
Scope:	Evaluation of innovative treatment strategies (face-to-face visits with non-health care workers, telephone counselling, smartphone app, information material send by mail only, at distance counselling based on web resources, E-health initiatives, design and validation of decision support tools, among others).
Expected impact:	The study will provide an estimate on two endpoints: 1) effectiveness and 2) compliance in the different intervention arms. EU-LAC collaboration provides additional value since the influence of e.g. cultural context, genetics, population age, and type of health care system can also be studied. Decision makers are provided with solid evidence which intervention provides best value for money.
Type of action:	Clinical intervention study

TOPIC 2: TITLE	Inter-ethnic studies about the pathophysiology, prevention and treatment of chronic diseases

Specific challenge:	Ethnicity is a major determinant for the prevalence of these conditions. In addition, it is a modulator of the response to therapy. The ethnic diversity of the EU and LAC countries is a unique opportunity to generate a network of institutions and projects in which individuals with different ethnic backgrounds are needed to study the role of genetic or cultural factors in chronic diseases.
Scope:	Basic, clinical and translational studies in which ethnic diversity is a major determinant or a confounding variable. Two or more ethnic groups should be included in the initiatives. Special focus should be placed in the amerindian heritage, because this population has been under-represented in chronic diseases studies.

Expected impact:	To generate: 1) genetic, pharmacogenetic, and other omics projects in which the pathophysiology, prevention, prediction and treatment of chronic diseases are studied in two or more ethnic groups. 2) Initiatives assessing the effect of cultural or other environmental factors on individuals of the same heritage living in different environments. 3) Cultural adaptation of standardized interventions.
Type of action:	Basic, clinical or social research studies.

TOPIC 3: TITLE	Indicators for healthy aging in EU and LAC countries

Specific challenge:	Healthy aging subjects provide a unique population to determine which modifiable, i.e. environmental, and non-modifiable, i.e. genetic, factors protect from chronic disease. Several studies in centenarians have been published. However, subject characterization has been highly heterogeneous between studies and no study directly compared predictors of healthy aging in different world regions.
Scope:	Centenarians are characterized using the same phenotyping protocol in both EU and LAC countries. Assessment includes fasting blood analysis (extended metabolic profile including adipokines), genetics (genome-wide association study), questionnaires on e.g. demographics, cognitive, mental, and physical health, life events, activities of daily living, nutrition, and exercise.
Expected impact:	Environmental and genetic factors which contribute to healthy aging are defined. This knowledge will provide the basis to define interventions (e.g. lifestyle, drugs) that protect from chronic diseases. EU-LAC collaboration provides additional value since subject characterization is homogeneous and protective factors being present in both regions are prime candidates for further analysis.
Type of action:	Observational study/international registry

Cancer

Short introduction to the cancer research area

The world is facing a critical health care problem: as the global population ages, cancer will become the most important public health problem worldwide. In 2012, the incidence of new cancer cases in Latin American and Caribbean countries (LAC) was 1.1 million, with 0.6 million deaths; in Europe 3.4 million new cases, with 1.75 million deaths (http://www.iarc.fr). A common misconception is that the quality of interventional cancer care, and end of life care where curative treatment is no longer an option, is exclusively related to resources. Appropriate resources often exist, but may be poorly allocated without a reasoned strategy based on appropriate clinical research evidence. For example, in both developed and developing countries, an increasing amount of the GDP is spent on cancer screening and diagnosis without a corresponding improvement in early detection, survival and quality of end of life care. The best way to deal with this problem from a public health perspective is to establish high quality clinical and evaluative research, through regional and international collaboration, which produces evidence to drive strategic plans which can be tailored to existing available resources and health care systems. In both EU and LAC countries, large, large studies on primary prevention are crucial and strategic in children and fertile ages population. A network of population based cancer registries is essential to conduct evaluative studies on all level of prevention.

Added value of EU-LAC cooperation in this area

Cancer research is vital to the development and improvement of methods to prevent, detect and treat cancer. International partnerships are a fundamental component of the global fight to improve both cancer cure and care. For example, clinical trial research in the Latin American region is scarce; in August, 2012, of the 35 471 cancer clinical trials registered worldwide, only 1665 (4·6%) were registered in Latin America. The lack of research in developing countries results in four unmet needs:

1) recommended treatments do not reflect ethnic, cultural, environmental and resource differences;
2) little research conducted on very frequent tumours primarily found in developing countries.
3) palliative care interventions are scarce
4) etiologic and survival population based studies

Hence, collaboration between EU and LAC is essential to provide benefits for both partners: for LAC countries information, data sharing, expertise, technological support, capacity building and the experience from developed health care systems that may be adapted /modified to the regional conditions; EU countries will benefit from an increased data pool, information on cancers proportionally more frequent in the LAC region(e.g. gastric, cervical, gallbladder, childhood leukaemia)and an understanding of innovative interventions and approaches to care in developing communities, such as the use of community and volunteer support.

Long-term (5-10 years) impact of EU-LAC cooperation in this area

By 2019, an EU-LAC Collaborative Cancer Research Group, including End of Life Care, will be established. The Collaborative will be capable of, and will conduct independently peer review funded Phase I, II and III Clinical trials, as well as innovative observational, situation analysis, epidemiological and implementation studies that will improve clinical care for patients and their families in three key areas: Detection and Diagnosis; Interventional Therapies for Cure; End of Life Care.

The developing work of the Collaborative will be conducted in consultation with the Cancer Patient Coalition and relevant Latin American and Caribbean organisations. In addition, the executive collaborative will seek to engage and influence national and international policy to ensure that existing and developing evidence is available to continually improve diagnosis, intervention and care, not only in the EU LAC countries, but for the global health community.

Cancer: Specific call topic suggestion

TOPIC 1: TITLE	Improving the quality of care and quality of life of dying cancer patients

Specific challenge:	In 2012, 2.35 million people died from cancer in EU LAC countries. Evidence identifies challenges and disparities in the quality of care in the last year of life, both within and across EU LAC countries. Developing innovative models and approaches to care require examination for impact and transferability. Aim: to advance the international evidence base in the care of dying cancer patients by undertaking multicentre clinical trials and/or observational studies to establish core international standards and improving quality of life.
Scope:	The delivery of appropriate care for dying cancer patients remains a key medical, social, economic and political issue. An international project which engaged both EU and LAC counties (OPCARE9) has already identified areas of common research interest and potential learning between continents. EU LAC collaborative research is required to improve and expedite the equitable delivery of care for cancer patients at the end of life.
Expected impact:	The research will seek to inform and develop an evidenced based approach to systematically standardise assessment and care, utilising patient and relative generated outcomes. This will make a significant contribution to the care of dying cancer patients at a national and international level. It will potentiate future EU LAC research by the development of EU LAC collaborative clinical and research networks.

Type of action:	Collaborative / Research

TOPIC 2: TITLE	Development and operations of Clinical Cancer research networks in Latin-America

Specific challenge:	Clinical research must be promoted for the benefit of the community of cancer patients. The development of research networks trying to advance innovative models and different strategies for research must be encouraged. It is necessary to develop less expensive, integrative and modern models in the Latin-American region. Drug development and science are crucial; however it is also critical to have additional information that will improve cancer care and make health care systems more efficient. The added value of this project will be to support the development of LA research networks with the guidance and expertise of European partner organizations.
Scope:	The Latin-American region is active in clinical cancer research and several groups and Institutions are performing well in the development and implementation of Phase I, II and III Clinical trials. But they are working unconnectedly and in an uncoordinated way. The positive experience from cooperative groups in the US and the EORTC in Europe has demonstrated that research networks are an important tool for the improvement and progress of cancer research. The objective will be the creation of a new network or the improvement of existing structures.
Expected impact:	This project possibly will change the current picture in clinical cancer research, transforming independent researchers in members of a strong and more efficient group of researchers and institutions and allowing the region to develop their own programs of research, adapted to the local needs and to the epidemiological, cultural and health care characteristics.
Type of action:	Research, Collaborative, Building Capacities and Training. Establishment of partnerships and collaborations together with proper funding for sustainability..

TOPIC 3: TITLE	Studying the Etiology and Survival of childhood Leukemia in Latin America and Caribbean countries and Europe

Specific challenge:	In Latin America/Caribbean (LA) and European countries (EU), approximately 16,000 children are annually diagnosed with leukemia (CL), which are about 30-40% of all childhood cancers. CL incidence and survival varies markedly within LAC and Europe and the risk of CL is high in several countries. The large geographical incidence and survival disparities indicate etiological and survival studies would be important in elucidating risk and prognostic factors for CL.
Scope:	• to improve descriptive epidemiology of CL in LAC and EU. • to create a structure to facilitate pooling the data for shared hypotheses • to agree a list of risk and prognostic factors including genetic and environmental factors • to agree on a list of biological markers of environmental exposure in CL and possibly their parents • to study the influence of selected risk factors exposure on CL survival • to promote link with similar networks/consortiums in the world
Expected impact:	• Updated CL mortality, incidence and survival data as base for subsequent descriptive, follow-up and etiological studies • Consortium of LAC/EU experts members • Study designs to improve the knowledge of the CL etiology and survival in both LAC and EU. • Database for pooled analyses to guarantee sufficient study power of CL subtypes • Network of LAC bio-banks to investigate CL biological markers and linkage with EU bio-banks
Type of action:	Collaborative study

Neurological diseases: neurodegeneration and stroke

Short introduction to the neurological diseases and stroke area

The global burden of neurologic diseases (ND) is enormous. A recent report by WHO shows that ND account for 11% of mortality worldwide, and their impact on the quality of life of patients, families/caregivers and society is huge. ND contribute to 92 million DALYs in 2005 (6% of total) projected to increase to 103 million in 2030. Among ND, more than half of the burden in DALYs is contributed by cerebrovascular disease, followed by dementias, in particular Alzheimer's Disease (AD). AD, a progressive neurodegenerative disease, accounts for as much as 80% of dementias. Dementia and stroke reduce a person's ability to perform everyday activities. The number of people living with dementia worldwide is currently estimated at 35.6 million. These figures will significantly increase in the next 15-20 years. Taken together, estimates indicate that the global burden borne by ND is poised to exert significant pressures on public health systems worldwide. EU-LAC regions are not immune to this problem.

Added value of EU-LAC cooperation in this area *(1000 characters maximum)*

The added value of EU-LAC collaboration is the opportunity to investigate interactions among racial, genetic and environmental factors, as well as develop a deeper knowledge on the prevalence of both modifiable and non-modifiable risk factors, involved in ND and neurodegenerative diseases, mainly stroke and AD-like dementia. Identified changes common to all populations are likely to be involved in common disease pathways. This in turn will help establish cost-effective standards for the management of these prevalent diseases.

Long-term (5-10 years) impact of EU-LAC cooperation in this area *(1000 characters maximum)*

EU-LAC collaboration offers the opportunity to advance research in ND and neurodegenerative diseases by sharing knowledge, experiences and new skills in order to enrich ideas and optimize the use of resources. Also, EU-LAC collaboration can provide a platform for access to complementary expertise, infrastructure and unique populations that will promote scientific progress and strengthen technological capabilities through technology transfer and researcher and fellowship exchanges. Furthermore, EU-LAC collaboration can make use of cooperation as one of the drivers by which successful strategies/approaches can be implemented in public health policy aimed at reducing the burden of ND, mainly stroke and dementia.

Neurological diseases: neurodegeneration and stroke - Specific call topic suggestion

TOPIC 1: TITLE	Healthy aging to combat neurodegeneration

Specific challenge:	Population aging represents significant burdens for developed and developing countries alike. The population of people > 65 years in LAC countries is expected to increase to more than 130 million by 2050. Currently, 16% of the EU population is > 65, and this figure is expected to reach 25% by 2030. This poses major questions in terms of socioeconomic burden as ND are mostly associated with aging.
Scope:	Populations with different genetic and environmental backgrounds would serve as models of healthy aging and ND. Data would include information about health, functional ability and social support networks, and blood samples for genetic and proteomic studies, collected from aged individuals who maintain high physical and cognitive function combined with minimal disease and disability.
Expected impact:	New knowledge, networks, and evidence can be applied to the understanding of aging. LAC populations are usually classified as a single ethnic group by researchers despite their cultural, socioeconomic and genetic diversity. The same holds for EU populations. With the advent of biomarker-based research, this is an opportune time to develop multicenter studies focused on aging across cultures.
Type of action:	Alignment of participant selection criteria and data sharing; validation using experimental models.

TOPIC 2: TITLE	EU-LAC STROKE BIOBANK

Specific challenge:	Every year, 15 million people worldwide suffer a stroke. Nearly six million die and another five million are left permanently disabled. Stroke is the second leading cause of disability, after dementia. The predictions for the next two decades suggest a tripling in stroke mortality in LAC countries.Treatment options are limited and lack effective diagnostic and prognostic markers.

Scope:	Treatment options in stroke are limited, specially in developing countries and regions such as LAC. Furthermore, there are a lack of effective diagnostic and prognostic markers with clinical utility for the management of this disease. The creation of a stroke biobank in the EU-LAC region would have a special value for searching useful biochemical and genetic markers in stroke.
Expected impact:	Obtaining the largest biobank on the world for the identification of molecular and genetic markers of susceptibility to stroke; biomarkers with prognostic and diagnostic value, as well as with value for measuring treatment effectiveness and secondary prevention. Besides, this biobank will have a wealth in terms of their cultural, socioeconomic and genetic diversity of EU-LAC countries.
Type of action:	Creating a common stroke biobank shared between the EU-LAC countries.

TOPIC 3: TITLE	**mHeatlh: take control of your health by ICTs (Information and Communications Technologies)**

Specific challenge:	By the end of 2013 there will be 6.8 billion mobile subscriptions for a world population of 7.1 billion. It is anticipated that we will have more mobile devices than human beings on this planet in 2014. Prevention of disease, promotion of healthy habits, adherence to treatment, patient engagement and self-management are challenges for a new way of communicate in our World.
Scope:	The use of existing Information and Communications Technologies (ICTs) in order to improve the management of ND, mainly prevalent neurological disorders such as stroke and dementias. Future medicine will emerge based on reliable measurement of the quality of life provided by all and every prevention and therapeutic approaches by using ICTs.
Expected impact:	Healthy people becoming more conscious of the value of being actively involved in the acquisition of health habits in EU-LAC countries. Patients more involved in the management of their disease. Citizenship and industry collaborating in an open innovation environment to create new business models, devices and applications.
Type of action:	Implementation of criteria for management of ND by using ICT. Development of mHealth.

Infectious diseases

Short Introduction to infectious diseases research area

There is no doubt that Infectious Diseases is the clinical area most affected by a deregulated global economic growth. There are increasingly more scientific evidences on how climate change determines the new epidemiological pattern of communicable disease in the world.

Emerging Infectious diseases (food, water and vector borne diseases) still represent a high burden of mortality associated to difficulties for early detection of the infection, therapeutic limitations and patients suffering from underlying conditions such as immune suppression, chronic or debilitating illnesses.

Antimicrobial resistance is becoming a huge societal challenge.

There is a concern in industrialized countries to prevent diseases from entering and causing an outbreak or re-emergence.

In developing countries, the concern is detecting communicable disease outbreaks earlier and stopping their mortality, spread and potential impact on trade and tourism.

Neglected Infections and Poverty, though hidden and often silent suffering, are responsible for a significant burden with an estimate of 568 million people affected in 2005 (Salud en las Américas 2007).

Added value of EU-LAC cooperation in this area

- Knowing regional, epidemiological, and environmental differences in prevalence and morbidity of different infectious diseases to develop better control programs
- Developing intervention programs adapted to geographical areas but with a global perspective
- Controlling of infectious diseases associated to immigration and travelling
- Facilitating validation of new tools of screening and diagnosis by doing multicenter studies. The perspective from both sides of the ocean
- Collaborative research in animal models of infection by sharing facilities and alternatives to animal models of diseases
- Bridging the gap between underpinning research and public health microbiology
- Increasing collaborative research, educational programs and global research results

Long-term (5-10 years) impact of EU-LAC cooperation in this area

- Fostering the development of EU-LAC international disease-specific networks and to integrate pre-existent networks
- Design of multicenter studies to analyze emergence of resistance, microorganism interactions and immune response and other emerging topics in infectious diseases
- Development of good laboratory practices (GPL) procedures and harmonization of techniques of research including proficiency tests (EQA – External Quality Assurance) using specific panels
- Collaboration with companies interested in techniques related to personalized medicine
- Scientific advice, training and advisory functions

Infectious diseases: Specific call topic suggestion

TOPIC 1: TITLE	Research in prevention of infectious diseases and promotion of well-being

Specific challenge:	Its objectives are infectious disease detection, monitoring, outbreak response and providing scientific evidence to prevent and control disease
Scope:	This topic includes issues related to public health of infectious diseases such as frequency of those entities, communicable diseases, surveillance programs, notification procedures and their influence on control measures and management of cases by social care services.
Expected impact:	Design of multicenter studies to know microorganism genetic, evolution, and ecology as well as the population genetics Development of standard operational procedures and harmonization of techniques of research foccusing in epidemiological responses Collaborative research in animal models, new vaccines and drugs, and bioinformatics
Type of action:	Promotion international disease-specific networks and participation in JPI on AMR and IMI

TOPIC 2: TITLE	Early detection research including both screening and diagnosis

Specific challenge:	The design of new techniques to early detection of infections including both screening methods and confirmation diagnosis procedures. National and international agencies require diagnostic procedures with very high accuracy and reliability to detect the microorganism and the disease impact. Otherwise they cannot be licensed as clinical diagnostic techniques.
Scope:	The high morbidity and mortality still associated to many infections are related to difficulty for their early detection. Most of patients with risk factors to a number of infectious diseases are inappropriate treated since reliable and early methods to detect the infection do not exist.

Expected impact:	Reduce the overtreatment which generates toxicity and unnecessary expenses, and also increasing the likelihood of developing resistance to antimicrobial agents. Development of diagnosis system for viable but non-cultured pathogens Development of diagnosis systems for novel and emerging pathogenic microorganisms Novel diagnostic approaches using new sequencing and high throughput sequencing
Type of action:	Design of multicentre studies to develop new screening and diagnosis techniques

TOPIC 3: TITLE	**Emerging food, water and vector-borne diseases**

Specific challenge:	Vector-borne related diseases: borreliosis, chikungunya, dengue, malaria, plague, Q-fever, rabies, SARS, smallpox, tick-borne encephalitis, viral haemorrhagic fevers, West Nile fever, yellow fever, and some acute diarrhea. Food and waterborne diseases and zoonosis: anthrax, botulism, campylobacter, cholera, echinococcosis, hepatitis A, rotaviruses …
Scope:	These infectious diseases still have high rates of morbidity and in specific cases high mortality rate and both are associated to difficulties for early detection of the infection, therapeutic limitations, areas without adequate resources, and patients suffering from underlying conditions such as immunosuppression, chronic or debilitating illnesses.
Expected impact:	Analysis of the potential differences in microorganism genetic, evolution, and ecology by different geographical areas Specific programs for prevention of endemic infections Better control of imported infections Increasing collaborative research and global research results
Type of action:	Fostering the development of EU-LAC international disease-specific networks.

Prevention of diseases and promotion of well-being

Short introduction to Prevention of diseases and promotion of well-being area

European and Latin-American countries are changing in many ways that affect health and demand new ways of thinking and acting. Consequently, using innovative and integrated approaches to deal with behavioural, environmental and health care determinants are crucial and necessary actions. It is also very important to address disease prevention and healthy ageing, especially cancer and other chronic diseases. For achieving these objectives, we propose two options:
1- The use of mobile devices in adults could be used for supporting health managements, diagnosis of diseases using hardware of mobile devices. This would be based even through the application of low-cost sensors.
2- Implementing materials suitable for different educational stages: In the school, families, teaching staff and pupils, focused on the promotion of healthy choices and in particular in the prevention of the primary risk factors for cardiovascular disease (CVD) from a very early age.

Added value of EU-LAC cooperation in this area

According to the EU-Commission and PAHO requirements, projects aiming at facilitating access to technology and knowledge, knowledge management and communications, have shown to improve the quality of life. Around the world there are reports of such initiatives, for chronic disease areas (e.g., congestive heart failure, pulmonary disease, diabetes, and skin ulcers (West D, 2012)) but also for outbreaks of transmissible diseases. In both areas, mobile technology lets persons to overcome the boundaries of geography in health care and at a distance, through both urban and rural initiatives, and is usable regardless of geography and language (West D, 2012) How Mobile Devices are Transforming Healthcare, Issues in Technology Innovation, N.18, 1-14.
Nevertheless, prevention still plays a secondary role, and healthcare workers fail to seize interactions through mobile communication with patients as opportunities to inform them about health promotion and disease prevention strategies.
Additionally, social and economic cohesion will benefit from new technologies and interactive activities to engage at risk populations and promote behavioural changes necessary to prevent the rise of cardiovascular diseases and other chronic conditions.

Long-term (5-10 years) impact of EU-LAC cooperation in this area

The use of m-health will not only be beneficial for patients and medical staff, but also will represent a significant contribution to the economies of the EU-LAC countries. For example this technology can: “1) reduce unproductive travel time, 2) improve logistics, 3) enable faster decision-making, and 4) empower small businesses and improve communications” (West D, 2012). Therefore, cooperation in this initiative to be growing for the countries participants and lasting for the following decades.

The goal of health promotion is to reduce mortality, morbidity and disability of the population. This is achieved through changes in the determinants of health. Therefore, we talk about impact evaluation, which assesses the effects of an intervention on its immediate achievements (in this case, KAH or BMI), and about outcome evaluation, which assesses the long term effects of an intervention (morbidity, mortality, disability, functional independence, equity and quality of life)

Prevention of diseases and promotion of well-being: Specific call topic suggestion

TOPIC 1: TITLE	Management support health using mobile devices

Specific challenge:	There are very limited evidence the use of mobile phone may support preventive health care, to improve health status and health behaviour outcomes, if compared with disease treatment and rehabilitation. There are significant information gaps regarding the areas (smoking, eating, alcohol consumption...) the long-term effects, and user satisfaction with such interventions. These limit the development of information and communications technology (ICT) applications, as well.
Scope:	To test the applicability of such interventions on the field in both geographical areas.
Expected impact:	To provide higher quality evidences on the effectiveness of such interventions through the carrying out of literature revisions and/or experts' consultations in European and Latin American countries, and to propose research and development (R&D) projects on this issues.
Type of action:	Research projects, R&D of start up in the field of ICT applications in healthcare

TOPIC 2: TITLE	Using mobile devices to improve access to prevention and timely diagnosis/treatment of chronic diseases

Specific challenge:	To address disease prevention and healthy ageing - especially cancer and other chronic diseases – with specific comparative research initiatives, starting from the key causal factors of diet, alcohol consumption, physical activity and smoking
Scope:	To increase access to data on overall performance of local/regional center mandated to prevention, diagnostic, treatment and rehabilitation of cancer; to increase accessibility (in terms of logistic, adequate times and outcomes) and promote continuity of care; to promote the self-prevention or the self-management (i.e. auto-diagnosis of skin cancer) through the ICT/mobile use
Expected impact:	Public disclosure of healthcare organization performance is likely to increase quality of care, through internal and external pressure systems (awareness, audit, internal quality improvements processes). Increasing in accessibility is likely to have an impact on health status, as well as all the other tools to promote self-management/care
Type of action:	Research projects, R&D of start up in the field of ICT applications in healthcare

TOPIC 3: TITLE	Educational approach to children population to promote cardiovascular health

Specific challenge:	To reduce the burden of cardiovascular disease in developing countries, providing a comprehensive, global approach toward tackling a problem that claims 30% of all deaths in developing countries. Through the use of pedagogical strategies beginning in childhood to modify the knowledge, attitudes and habits related with health, diet and active lifestyle.
Scope:	In very young children this program can be effective in modifying knowledge; attitude and habits relevant to long-term risk of chronic disease associated with sedentary lifestyle regardless the economic status of the country application, towards material suitable for different educational stages.
Expected impact:	Through a full educational intervention that fully integrate into 4 important levels: School environment, teachers, parents and pupils. There will be a significant improvement of the knowledge of healthy habits that will have a positive impact on health, lifestyle, promoting behavioural changes needed to prevent the onset of cardiovascular disease (CVD) and other chronic conditions.
Type of action:	Research projects, R & D start-up in the field of education with the aim of improving healthy habits

Health and social care services research

Short introduction to Health and social care services research area *(1000 characters maximum)*

The scientific background that supports the HSSR at EU-LAC is the Health Services and Policy Research (HSPR) framework. Essentially, HSPR aims at providing stakeholders with meaningful insight on how regulation and financing systems, organizational structures and processes, health technologies and evidence, and socio-economic factors and personal behaviours affect access to health and social care, quality (in a broad sense) and costs, and, ultimately, well-being.

Archetypical domains within this framework are: a) health and social systems characterization; b) systems performance comparison and benchmarking; c) assessment of the intended and unintended consequences of health and social care policies; d) analysis of the impact of interventions, for example, the adoption of a new technology, the implementation of organizational changes or the use of ICTs, the value of different strategies for knowledge transfer; or, the inclusion of decision-aid tools for patients.

As a scientific research field, HSSR will be built upon scientific principles, in particular validity, feasibility and reproducibility, using the most robust available methods to analyse the aforementioned archetypical domains.

Added value of EU-LAC cooperation in this area *(1000 characters maximum)*

EU and LAC countries share an increasing awareness on the impact of Health and Social Systems as determinants of health and welfare. EU and LAC countries also share the epidemiologic transition towards “chronicity”, a transition that affects the current professional, organizational and political paradigms. EU and LAC countries are unevenly facing the challenges that emerge from both issues; so a) the need of universal coverage; b) the guarantee of equitable access to effective health and social care; c) the need of improving societal efficiency; d) shifting the system towards a strong primary care; e) the necessary integration of Health and Social care; and, f) the requisite of continuous evaluation of performance, with emphasis on quality and costs.

The added value of HSSR at EU-LAC is precisely on the mutual learning from in-country evidence about policies that have succeeded in dealing with the aforementioned challenges. As a matter of example, and broadly speaking, we could assume that European countries might have better attained the goal of reducing access inequalities and LAC countries have better approach the change of the care paradigm getting local communities more involved in health care. HSSR at EU-LAC should be able to draw out those critical elements (institutional factors, local leaders, etc.) that might explain the success of particular policy or intervention in a country, in order to help stakeholders in either region to understand how to adopt those policies into their political and socioeconomic contexts.

Long-term (5-10 years) impact of EU-LAC cooperation in this area *(1000 characters maximum)*

A rough analysis of the research capacity and scientific production has shown a quite uneven reality, favouring EU countries. Moreover, there is a strong imbalance (against LAC countries) in the spread of routinely collected data (e.g. population-based surveys, disease-oriented registries, patient cohorts or administrative data) that, ultimately, enhances or limits the development of systematic, sound and meaningful Health Services and Policy Research. However, neither within EU nor within LAC, all countries experience a homogenous level of research capacity. Reducing these gaps between and within both regions would allow some long-run achievements: increasing the critical mass devoted to analysing health and social systems and their consequences, increasing the research capacity and consequently the competitiveness with other areas of the globe, developing common research infrastructures (e.g. health information systems oriented to evaluate performance, policies or interventions). Ultimately those achievements will turn into an improvement of EU-LAC societies in two ways: helping stakeholders making evidence-based policy making, and having populations properly informed about how sustainable, equitable, safe, and efficient are the policies and services they are exposed to.

Health and social care services research: Specific call topic suggestion

Propose a **maximum** of **3 call topics (ordered by priority)**

TOPIC 1: TITLE	Equity in the access to effective health and social care

Specific challenge:	Is universal coverage the main determinant in reducing inequalities in the access to effective services? Or alternatively: Are there system-specific features that would better explain the attainment of this goal? Or alternatively: Is access to effective services independent of the system, and merely, associated to population differences in socioeconomic or educational status?
Scope:	There is a general agreement on the beneficial effect of universal coverage as a mean to reduce inequalities. However, the effect might resides more in country-specific features: depth and breadth of the benefits basket, the mixture of funding schemes (out of pocket, co-payment and taxation), access barriers (supply, waiting lists, socioeconomic or educational status) or primary care development.
Expected impact:	Research will draw out equity challenges in both regions, and map out system-specific (namely, country-specific) features that would explain a less unequal behaviour in the access to effective care. Ideally, this topic will highlight those policies that have been proven effective in reducing inequalities and will provide evidence on how to transport best practices across the two regions.

Type of action:	Research action

TOPIC 2: TITLE	Improving chronic care in EU-LAC countries

Specific challenge:	Are there policies and practices in EU and/or LAC countries that can be considered as gold standards in chronic care?
Scope:	Epidemiological transition towards “chronicity” and the subsequent healthcare financing challenges affect both regions. Countries are adapting their systems to this new reality (developing pathways of care, changing professional roles, empowering patients and caregivers, adopting ICT innovations). The analysis of policies and practices of chronic care in both regions will allow mutual learning.
Expected impact:	Research on this area will focus on policies and practices that have been proven effective and efficient in specific systems (namely, countries), eliciting those elements that have been shown critical in reaching both goals. Besides, research on this area will be also interested in drawing out policies and interventions that have not been proven better than the existing ones (so uncertainty remains about their effectiveness or cost-effectiveness) This action will provide a repository of best practices, highlighting barriers and facilitators that should be taken into account in the implementation in other contexts.
Type of action:	Networking and research action

TOPIC 3: TITLE	Unwarranted differences in hospital performance across EU-LAC countries

Specific challenge:	Is the risk for a patient to get a bad outcome or an adverse event associated with the hospital where he or she is treated? Is the risk different in specific population subgroups? Are hospital outcomes associated with the level of resources devoted?

Scope:	Unwarranted differences in hospital outcomes are a universal phenomenon that affects millions of patients in both regions. Although in the OECD there has been systematic analysis of hospital outcomes in some EU-LAC countries, the scope of this initiative has not extended broadly. EU-LAC HSSR could bridge the gap reporting on EU-LAC hospitals performance, focusing on specific population subgroups
Expected impact:	Research on this topic would produce two main outputs: a common information system allowing cross-country analyses on hospital performance, and annual reports mapping out hospital outcomes, flagging best and worst performers. The report would contain specific analyses on population subgroups of interest for both regions – e.g. women, elderly people, cancer patients or cardiovascular patients.
Type of action:	Infrastructure development and research action

5. Summary of EU-CELAC SOM decisions-making issues

a. Thematic topics suggested to the SOM by the SOM WGoH for the first and the second ERANet-LAC Joint Call
b. Draft Roadmap for the Joint Initiative on Health Research and Innovation proposed by EU-LAC Health (see index and executive summary on Annex IV):
    i. Draft Scientific Agenda
    ii. Governance outline
    iii. Outline of Roadmap
c. Formalization of SOM WGoH and proposal of widening country participation.

6. Annex I- EU-LAC Health Consortium and Advisory Board

EU-LAC Health Consortium:

- Instituto de Salud Carlos III, Spain
- Ministerio de Salud de Costa Rica, Costa Rica
- INNOVATEC, Spain
- COHRED, Switzerland
- DLR, Germany
- FIOCRUZ, Brazil
- Min. de Ciencia,Tecnología, e Innov Productiva, Argentina
- APRE, Italy

EU-LAC Health Advisory Board

- Dr. Stephane Berghmans , Belgium
- Prof. Jaime Breilh, Ecuador
- Dr. Alfredo Cesario , Italy
- Dr. Luis Gabriel Cuervo , PAHO
- Dr. Maria Ximena Luengo Charath , Chile
- Prof. Sir Salvador Moncada, United Kingdom
- Prof. Dr. Katja Radon , Germany
- Dr. Maria del Rocio Saenz Madrigal, Costa Rica
- Prof. Karl Theodore , Trinidad and Tobago
- Prof. Eero Vuorio , Finland

7. Annex II- State of play report- Summary and Introduction

This report presents the situation of two different regions -European Union and Latin America and the Caribbean (LAC)- in relation to the structures, investments, funding, scientific production and country participation in the 7th Framework Programme of the EU. Differences between the regions' development is known, and differences within regions are more severe in Latin America and the Caribbean.

There is a long history of cooperation and willingness to improve relations between the two regions. There is an established cooperation and political mechanism that allows regions to analyse, plan and implement actions towards a better and fruitful cooperation.

LAC has a population of close to 600 million people, of which half live in two countries, Brazil and Mexico. Even though health indicators have improved, it has not improved the same along the region, differences in health investments, fragmentation of health systems and specific countries' issues have caused these to persist.

Investment in R&D in Latin America has increased mainly thanks to the big efforts Brazil has made, and four countries are the main producers of scientific papers and European Union (EU) Framework Programme 7 (FP7) participation. This programme has implemented several initiatives through which countries have developed projects towards strengthening Latin America's and the Caribbean's participation in FP7. The same four countries with the highest scientific output in the LAC region are the holders of bilateral agreements with the EU. These countries are Argentina, Brazil, Chile and Mexico.

Research for health systems is also a reflection of R&D investments and few countries have a structured research for health system. Financing and linking it to research priorities is something that not all countries have been able to have in place. The well functioning Sectoral Funds to finance research for heath implemented in various countries with their own variations, is a mechanism that has allowed funding to flow and foster research.

In the European Union financing through FP7 - the main programme for research financing - devotes a significant amount to health. EU's scientific production has increased as is well recognised. Through the FP7, the EU member states, associated countries and third countries have all benefited through one or more of the several programmes that have been implemented. LAC's participation has grown. EU Transnational initiatives have played a key role in supporting cooperation.

While the EU's efforts of unity and common market have resulted in a strong alliance and specific financing mechanisms, there is big division due to geopolitical and historical reasons that is reflected in the amount of organisations existing in the LAC region. This causes a great fragmentation and either duplication of efforts or issues that are not attended. This is to be noted as the region of the Americas has two of the oldest organisations in the world, the Organisation of American States (OAS) and the Pan-American Sanitary Bureau/ Pan-American Health Organisation.

EU-LAC Health is oriented to improve cooperative health research between Europe and Latin America-Caribbean countries by establishing (as part of the roadmap) new mechanisms (programmes, funding schemes, etc.) and facilitating the coordination of policies and funding.

This five year coordinated action proposes to define a detailed plan to guide policy makers and other stakeholders on future actions to achieve the above. This consensus roadmap will be developed using a policy-oriented approach and taking into account the new political framework for EU-LAC collaboration in S&T.

Introduction

This report summarises four task reports of Work Package 1 (WP1) and the comments gathered in a two day workshop (March 2012 – Brazil) of the Project "Defining a Roadmap for Cooperative Health Research between the EU and Latin America-Caribbean countries: a Policy-Oriented approach" (EU-LAC Health), co-financed by the 7th Framework Program of the European Union (EU).

The EU-LAC Health coordination action proposes to define a detailed plan to guide policy makers and other stakeholders on future actions to support cooperative health research between Latin America and Caribbean countries (LAC) and the European Commission and Member States (EU). This consensus Roadmap will be developed using a policy-oriented approach and taking into account the new political framework for EU-LAC collaboration in S&T. The Roadmap will support policy-makers and R&D funding bodies and provide them with new insights on how to best coordinate and fund cooperative health research between the two regions. An important effort will be devoted during the project in trying to link and coordinate two important policy areas with strong involvement in health research funding: Science and technology policy (research) and International development cooperation.

This report on the State of the Play analysis reflects the present political framework and current situation of EU-LAC cooperation in health research in the European Union and in the Latin America and the Caribbean regions. It has involved the examination of relevant written material and consultation with important stakeholders and experts to identify and analyse major issues affecting EU-LAC cooperation in health research. Work focused mainly on three important issues:

- Analysis of the existing framework of S&T collaboration between LAC and EU. A review of the existing political and economical framework of S&T collaboration between the EU (EC and member countries) and the LAC region was carried out.

- Analysis of the present situation and future needs of R&D on health in LAC and EU regions. An in-depth analysis of the actual situation of health research in the EU and LAC regions based mainly on deskwork and personal interviews is presented. The analysis focuses on the situation in the EU as a whole, member countries and Latin American and Caribbean countries. Main topics addressed are: Health research systems, health research funding, main actors, health research capacity and S&T priorities and future actions.

- Identification and analysis of existing health research funding programmes promoting EU-LAC collaboration. A review of all the cooperative health research programmes that fund S&T actions

(including R&D projects, capacity building, technology transfer) between the EU and LAC partners was carried out. Main programs, funding agencies and participant countries were identified and analysed, including, when possible, the dedicated budgets and real costs of past years and future trends.

Together with desk analysis, one 2-day workshop to discuss the main findings and drawn conclusions on the State of Play was held in Brazil with participation of partners and members of the Advisory Committee. This workshop was also very useful to inform LAC policy makers and other stakeholders of the objectives and planned activities of the project.

This report is the final document of the above-mentioned actions and includes main findings of the analysis work and conclusions drawn at the workshop. Partners participating in its content through the elaboration of individual reports were: The Oswaldo Cruz Foundation (FIOCRUZ) from Brazil, the Agency for the Promotion of the European Research from Italy (APRE), the Carlos III Health Institute of Spain (ISCIII), and the Council on Health Research for Development (COHRED) Switzerland/Mexico.

8. Annex III: Members of the EULAC Health Scientific Working Group

HEALTH AND SOCIAL CARE SERVICES RESEARCH

- Dr. Enrique Bernal-Delgado (EU coordinator), Senior researcher, Institute for Health Sciences in Aragon, Spain.
- Dr. Karl Theodore (LAC Coordinator), Director, HEU, Centre for Health Economics, Trinidad and Tobago.
- Dr. Antonio Pietroiusti, Department of Biomedicine and Prevention, Tor Vergata University, Italy.
- Dr. Malaquías López Cervantes, Professor, Universidad Nacional Autónoma de México, Mexico.
- Dr. Henrique Barros, Head of the Dep. of Clinical Epidemiology, Predictive Medicine and Public Health, University of Porto Medical School, Portugal.
- Dr. Manuel Espinoza, Professor, Univ. Pontificia de Chile, Chile.
- Dr. Abdul Ghaffar, Executive Director, Alliance HPSR, WHO.

PREVENTION OF DISEASES AND PROMOTION OF WELL-BEING

- Dr. Antonio Giulio de Belvis (EU coordinator), Assistant Professor, Università Cattolica del Sacro Cuore, Italy.
- Dr. Miguel Rojas Chaves (LAC coordinator), Coordinator Biotechnology Research Center, Instituto Tecnológico de Costa Rica (TEC), Costa Rica.
- Dr. Valentín Fuster, General Director (CNIC) and Director of the Cardiovascular Institute and Physician-in-Chief at the Mount Sinai Medical Center, New York, CNIC (Madrid) /Mount Sinai Medical Center (New York), Spain.
- Dr. Rainford Wilks, Director, Epidemiology Research Unit, Tropical Medicine Research Institute; University of the West Indies, Jamaica.
- Dr. Marisa Buglioli, Department of Preventive and Social Medicine, Head, University of the Republic, Uruguay.

INFECTION

- Dr. Manuel Cuenca Estrella (EU coordinator), Director, Centro Nacional de Microbiología, ISCIII, Spain.
- Dr. José Paulo Gagliardi Leite (LAC coordinator), Senior Researcher, Department of Virology, FIOCRUZ, Brazil.
- Dr. Stefano Vella, Director, Department of Pharmacology and Therapeutic Research; Istituto Superiore di Sanità, Italy.
- Dr. Pedro Cahn, Scientific Director and President, Fundación Huesped, Argentina.
- Dr. Pablo Bonvehí, Head of the Section of Infectious Diseases and Infection Control, CEMIC, Argentina.
- Dr. Fernando Pio de la Hoz Restrepo, General Director, Colombian National Institute of Health, Colombia.

CHRONIC DISEASES

- Dr. Carlos Alberto Aguilar Salinas (LAC coordinator), Vice Head of the Department of Endocrinology and Metabolism, Instituto Nacional de Ciencias Médicas y Nutrición. Mexico City, Mexico.
- Dr. Mathias Fasshauer (EU coordinator), Deputy Director, Department of Endocrinology and Nephrology, University of Leipzig, Germany.
- Dr. Daniel Ferrante, Direction of Promotion of no Transmissible Chronic diseases, Ministry of Health, Argentina.

• Dr. Luis A. Castaño, Scientific Director, CIBERDEM, Spain.
• Dr. Davide Lauro, Professor of Endocrinology, Department of Systems Medicine, University of Rome "Tor Vergata", Italy.

CANCER

• Dr. Eduardo L. Cazap (LAC coordinator), Founder President, SLACOM (Latinamerican & Caribbean Society of Medical Oncology , Argentina.
• Dr. John E. Ellershaw (EU coordinator), Professor of Palliative Medicine, University of Liverpool; Director, Marie Curie Palliative Care Institute Liverpool, University of Liverpool, UK.
• Dr. Alejandro Mohar, Director, National Cancer Institute, Mexico.
• Dr. Gemma Gatta, Evaluative Epidemiology, IRCCS - National Cancer Institute, Italy.

NEUROLOGICAL DISEASES AND STROKE

• Dr. Gabrielle Britton (LAC coordinator), Staff Scientist, Centre for Neuroscience, INDICASAT AIIP, Panama.
• Dr. Rita Raisman (EU coordinator), Directeur de Recherche, INSERM / CRICM, France.
• Dr. Marcelo Kauffman, Physician Neurologist. Hospital JM Ramos Mejia (Neurology service), Argentina.
• Dr. Maria Luisa Sacchetti (former coordinator), Department of Neurology and Psychiatry, Sapienza - University of Rome, Italy.
• Dr. Rodrigo Salinas, Chairman of the Bioethics Committee FONDECYT, Chile.
• Dr. José Castillo Sánchez, Neurologist and coordinator of the Cerebrovascular Diseases Network, University of Santiago de Compostela, Spain.

OTHER CONTRIBUTORS

Dr. Maria Luisa Vazquez Navarrete, Research and Development, Head, Health Policy Research Unit, Consorci Hospitalari de Catalunya, Spain.
Dr. Miguel Delgado, Scientific Director, CIBERESP, Spain.
Dr. Oliver Razum, Leiter AG Epidemiologie & International Public Health, Universität Bielefeld, Germany.
Dr. Stefania Salmaso, Director of the National Centre for Epidemiology, Surveillance and Health Promotion, Istituto Superiore di Sanità, Italy.
Dr. Stefano Bonassi, Molecular Epidemiologist, Environmental Mutagenesis, IRCCS San Raffaele Pisana, Italy.
Dr. Michael Alexander Miles, Professor of Medical Protozoology, Department of Pathogen Molecular Biology, Faculty of Infectious and Tropical Diseases., London school of Hygiene and Tropical Medicine, Pathogen and Molecular biology, Infectious and Tropical Diseases, UK.
Dr. Petronila Martínez Peguero, Cardiologist and former president of the Dominican Cardiology Society , Dominican Republic.
Dr. Gerd Hasenfuß, Director of the Department of Cardiology and Pneumology / Chair of Heart Research Center Göttingen, University Medical Center Göttingen, Germany.
Dr. Sergio Koifman, Coordinator, Department of Epidemiology , National School of Public Health/FIOCRUZ , Brazil.
Dr. Berta Roth, Director of the Radiant Therapy Area and Diagnosis, Institute Angel Roffo, Argentina.
Dr. Maria Viniegra, CEO, Instituto Nacional del Cancer de Argentina, Argentina.
Dr. Jesús García-Foncillas, Director of the Department of Oncology, University Hospital “Fundacion Jimenez Diaz”, Spain.
Dr. Exuperio Diez-Tejedor, Head of the Neurology Unit, La Paz University Hospital, Spain.

Dr. Martin Knapp, Director of NIHR School for Social Care Research, Personal Social Services Research Unit (PSSRU) and LSE Health., The London School of Economics and Political Science, UK.

9. Annex IV: Strategic roadmap for EU-CELAC Joint Initiative on Health Research and Innovation

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EXECUTIVE SUMMARY

Background, current context and challenges ahead

The European Union (EU) and the countries of Latin America and the Caribbean (LAC) approved a **Joint Initiative for Research and Innovation (JIRI**) in 2010 to develop what has been named as the *EU-CELAC knowledge area*. Health research has been considered an important area for mutual collaboration between both regions, and for this, a Health Research working group has been created within the **Senior Official Meeting** (**SOM**) that prepares and implements this **Joint Initiative for Research and Innovation.**

The ***EU-LAC Health project*** has been assigned the task to provide the technical background and concrete thematic proposals for the decision-making by the ***EU-CELAC JIRI Health working group***. This goes along with the long-term objective of the project that is to prepare and define **a Strategic Research Agenda for the *EU-CELAC JOINT INITIATIVE ON HEALTH RESEARCH,*** including the scientific objectives that allow addressing global societal challenges***.*** Within this framework, the ***EU-LAC Health project*** has prepared the **STRATEGIC ROADMAP** of the ***EU-CELAC JOINT INITIATIVE ON HEALTH RESEARCH*** which includes the Scope, Objectives, Strategy and the Roadmap which outlines the basis for the implementation of this very ambitious initiative.

Health Research stands as one of the major areas of R&D expenditure in both regions, reaching up to 18% of the total Gross domestic expenditure on R&D (GERD) in EU-27 and around 10% in LAC region. This important investment is translated into a very high number of health scientific publications coming from both regions (around 30% of the total scientific publication in EU-27 and around 25% in LAC). A long standing national commitment on health research has created a critical mass of health researchers and health research organizations in both regions. Transnational collaboration in health research has already taken place, promoted both at EU level by the EC through the different Framework Programmes (FP6, FP7 and Horizon 2020) as well as by individual member states and LAC countries through bilateral Science&Technology (S&T) cooperation agreement and cooperation programmes, as well as the successful CYTED programme. All of these realities contribute to make health research an area where the political mandate to develop an **EU-LAC Knowledge Area** can best be achieved.

Vision and Mission

EU-CELAC collaboration in research, and moreover in health research, is beneficial not only from the point of view of the research community regarding a scientific problem and an efficient knowledge exchange. It is also beneficial in the sense that it improves national competitiveness, supports low and middle income countries by developing STI capabilities and tackles global societal challenges such as ageing or emerging infectious diseases.

The **Vision** of the **EU-CELAC JOINT INITIATIVE ON HEALTH RESEARCH (EU-CELAC JIHR)** is to implement a sustainable collaborative health research effort between policy-makers, researchers and stakeholders from Europe and Latin America and the Caribbean that results in better interventions to improve the health and social wellbeing of citizens.

Accordingly, the **EU-CELAC JIHR** will have as main **Mission** to build a sustainable collaboration between policy makers, researchers and stakeholders from EU and CELAC directed to improve health, economic and social wellbeing of citizens.

The objectives of the **EU-CELAC JIHR** are highlighted below:

- Addressing common challenges, aligning research programmes and avoiding duplications.

- Maximizing synergies among national partners putting together expertise scattered across different countries.
- To increase the scientific and societal impact of the research.
- To increase the overall value for money of the public expenditures in health research.

The **EU-CELAC JIHR** should work under a set of key principles:

- Jointly defined strategic research agenda tackling global challenges.
- Improved integration of national and regional activities through existing or innovative funding schemes.
- Co-responsibility, co-ownership and inclusiveness.
- Flexibility to allow reacting to the changing landscape.
- Sound operational strategy.
- Transparency, accountability and visibility of the initiative.

Scientific Research Agenda

The identification of priority areas in health research for cooperation between the two regions has been considered a decisive step before defining a roadmap to guide future cooperative health research actions between EU and CELAC. Based on the work carried out by the EU-LAC health project, six scientific areas have been selected for further analysis:

- HEALTH AND SOCIAL CARE SERVICES RESEARCH
- INFECTION
- NEUROLOGICAL DISEASES AND STROKE
- CHRONIC DISEASES
- PREVENTION OF DISEASES AND PROMOTION OF WELL-BEING
- CANCER

Six working groups formed by expert scientist for both EU and LAC countries, working within EU-LAC Health, have been asked to prepare for each selected area a first proposal of relevant issues where future collaboration between the two regions could be promoted and supported by the **EU-CELAC JIHR.** Selected areas and relevant issues are sustained by the societal challenge they tackle, the scientific challenge that the bi-regional collaboration may address, the added value gained through EU-CELAC cooperation, main goals and the expected impact of the collaboration.

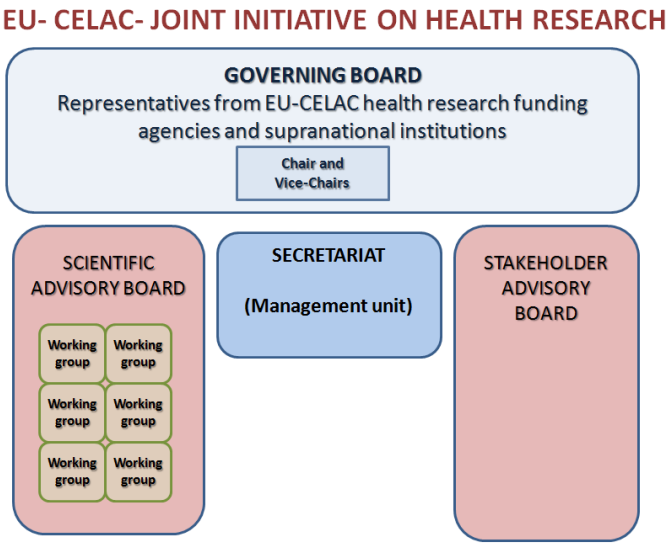
EU-CELAC JIHR Governance

Following international standards of good governance, the governance of the EU-CELAC JIHR needs to follow a set of important elements: i) balance of interest and representation among EU and LAC participants; ii) openness; iii) adaptability and flexibility; iv) efficiency and effectiveness in the use of resources with respect to the goals stated and v) accountability and monitoring and measuring performance.

As part of this strategic Plan, a Governance and Management Structure is proposed for the **EU- CELAC JIHR,** including different bodies for decision making (see figure).

The **Governing Board (GB)** will be the ultimate driver and the highest decision-making structure of the joint initiative. It will be formed by representatives of the respective national funding bodies that agree to participate in the initiative. It will be responsible for ensuring coordination, supervision, implementation and progress of the joint initiative through the Secretariat. Membership of the GB will be open to any EU and CELAC country that wishes to participate in the joint initiative. Membership of additional states joining the initiative shall be approved by the GB.

The **Secretariat** would conduct the day-to-day management activities supporting the initiative and will be its administrative centre, serving as the central point of communication with the different bodies of the initiative. The Secretariat will be responsible for the *i*) management (annual work plan, meetings, agendas, manage the operational budget, etc.), *ii*) communication and dissemination, *iii)* coordination, and *iv*) implementation (*development of the Strategic Research Agenda, launch of projects, etc.*).



The **Scientific Advisory Board** will consist of scientists of high international reputation. Potential problems related to conflicts of interest including the compatibility of Scientific Advisory Board members as advisors and as active researchers should be clarified in the terms of reference elaborated by the Governing Board. The Scientific Advisory Board will advise the Governing Board on research priorities and progress made from a scientific viewpoint.

The **Stakeholders' Advisory Board** would be formed by Public Health authorities, patients associations, Non Governmental Organizations (NGOs), representatives of companies (*pharmaceutical, medical devices, etc.),* public administrations, etc. The role of the Stakeholders' Advisory Board will – in addition to the Scientific Advisory Board – be essential in order to structure and update the Strategic Research Agenda and operational plans that respond to the challenges.

Preliminary Strategic Roadmap

In order to accomplish the objectives of the **EU-CELAC JIHR** a preliminary **RoadMap** from 2014 up to 2020, has been prepared including a calendar of proposed activities. A direct and continuous interaction with the SOM Working Group on Health research is expected at the beginning of this Roadmap to refine and jointly agree upon this Strategic Plan. As result of this, re-arrangements in the Roadmap can be expected.

During the period 2014-2016, main activities need to be focused towards the definition and implementation of the **EU-CELAC JIHR Coordinating Governance** (see figure above), with the technical support of the EU-LAC Health project and the political support of the SOM Health Research Group. Coordination with other ongoing initiatives and policies should also be sought. A first meeting of an *interim* governing structure in 2015 and an operational Secretariat implemented at the beginning of 2016, are two important milestones to be achieved. A definition and approval of the first annual plan of the **EU-CELAC JIHR** will also be pursued during this period.

For the period 2017-2020, a set of actions have been planned, with the main goal of consolidating the **Coordinating Body**, with all its decision making units working and a first set of actions/projects implemented. By the end of this period, a first evaluation of initiative should be carried out.

Finally, an important reflection on the roadmap presented needs to be pointed out. The Roadmap is a helpful tool to design the strategic work towards the setting up and establishment of the **EU-CELAC JIHR**. However, this roadmap needs to be flexible, as milestones achieved during the first period will necessarily condition the viability of the second period and should always be adaptable to the requirements of the SOM Health Research Working group, and furthermore, to the EU-CELAC JIRI.

10. Acronyms

ALCUE NET	Latin America, Caribbean and European Union Network on Research and Innovation(EU Project)
CYTED	Ibero- American Programme for Science, Technology and Development
ERANet-LAC	Network of the European Union, Latin America and the Caribbean Countries on Joint Innovation and Research Activities (EU Project)
EC	European Commission
EU	European Union
EULAC	European Union, Latin America and the Caribbean
EU-LAC Health	Defining a Roadmap for Cooperative Health research between the EU and Latin America-Caribbean countries: a Policy Oriented Approach (EU Project)
FP7	7th Framework Programme for Research and Innovation (2007-2013)
H2020	Horizon 2020: The EU Framework Programme for Research and Innovation (2013-2020)
JIRI	Joint Initiative for Research and Innovation
LAC	Latin America and the Caribbean
RIMAIS	Red Iberoamericana Ministerial de Aprendizaje e Investigación en Salud
SOM	Senior Officials Meetings
STI	Science Technology and Innovation
TORs	Terms of references
WG	Working Groups
WGo H	Working Group on Health