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From international to global. Knowledge, diseases and the postwar government of health.

Abstract
This project aims at a socio-historical study of the transition between the two regimes of knowledge and action, which have characterized the government of health after World War II: the regime of international public health, dominating during the first decades of the postwar era, which was centered on eradication policies, nation-states and international UN organizations; the present regime of global health, which emerged in the 1980s and is centered on risk management and chronic diseases, market-driven regulations, and private-public alliances.
The project seeks to understand this transition in terms of globalization processes, looking at the making of knowledge, the production and commercialization of health goods, the implementation of public health programs, and routine medical work. It will focus on four fields of investigations: tuberculosis, mental health, traditional medicine and medical genetics in order to understand how categories, standardized treatment regimens, industrial products, management tools or specific specialties have become elements in the global government of health. The project associates historical and anthropological investigations of practices in both international and local sites with strong interests in: a) the changing roles of WHO; b) the developments taking place in non-Western countries, India in the first place.
The expected benefits of this research strategy are: a) to take into account social worlds including laboratories, hospitals, enterprises, public health institutions and international organizations; b) to approach the global as something translated in and emerging from local practices and local knowledge; c) to explore different levels of circulations beyond the classical question of North-South transfers; d) to deepen our understanding of the transition from the political and economical order of the Cold War into a neo-liberal and multi-centric age of uncertainty.

The research program.

General aims and questions in relation to the state of the art

In the 1980s and 1990s, the HIV epidemic was the most discussed issue in international health organization and was increasingly labeled as a global phenomenon (Bastos 1999). Within this context, "global" referred to various aspects of the epidemic: its scale and the fact that contamination occurred in all countries of the world; the need for coordinated and generalized actions implying programs to be implemented in all countries; the creation of new institutions operating worldwide involved in funding or standardization of prevention (later treatment) protocols; the specificity of problems associated with North-South inequalities, with access to health resources originating in the fact that the majority of HIV-contamination took place in developing or underdeveloped countries, African in the first place.

These discourses, the dangers and activities they point to, are good markers of the emergence of global health as a novel way to think about health-related issues in an international perspective (Brown 2006, Birn 2009, Hodges 2012). In spite of its visibility, one may wonder what is actually new in global health? Historians of medicine are used to tracing the emergence of health as an object of international policy back to the mid-19th century (Weindling 1995, Bashford 2006). Analysts of the contemporary status of science and medicine are on the other hand inclined to think that health only became truly global in the last decades of the 20th century, when the circulation of persons, data, products, and equipments scaled up in such an unprecedented way that it rendered an integrated and world-wide management of health both feasible and necessary (Buse 2009, Labonté 2009, Kay 2009, Koivusalo 1997, Muraskin 1998).

The idea of a big transformation leading to global health is appealing. It resonates with investigations in other fields of science and technology ranging from climate change and biodiversity to agriculture and food supply, which have become global objects of research as well as objects of global intervention and intervention (Jasanoff 2004, Goldman 2005). To summarize them briefly, studies of globalization have pointed to three main areas when advocating the novelty of the present:

a) the economy has changed nature becoming more financial with global flows of capital, more distributed with formerly developing countries as major players, and more direct reliance on innovation; as a consequence prominent actors are no longer, or less exclusively, the nation-states but heterogeneous alliances including new actors among which philanthropic foundations, private-public partnerships and NGOs play a central role;

b) the circulation of knowledge, ideas, products, as well as persons have increased in a dramatic manner bringing together highly heterogeneous cultures, which do not co-exist in a given place, but interact and hybridize, thus giving local or traditional views and practices a global character as well as giving a seemingly global consumer culture local and diversified meanings

c) the end of the cold war and the disappearance of the West/East polarity in international affairs has not only triggered a major reorganization of international institutions but opened spaces for new alliances and circulations, with a mounting role of emerging countries and South-South relationships. One consequence of this institutional reshuffling is that the regulations governing the circulation of goods and people operate at a different level with rules, standards, certification or guidelines being defined by bodies claiming global rather than inter-national competencies.

Science and technology studies have added two specificities to this overview. The first one is the idea that the problems and risks the world faces have changed since the most critical are not longer the threats originating in an untamed nature or in uneven access to wealth but in the unforeseen consequences of human technological interventions. The present is thus characterized by conflicting views of science and technological innovation: one stressing their unforeseen consequences and adverse effects; the other emphasizing their promises, the entry into a 'knowledge society' and the benefits of fields like biotechnology, information sciences, etc. The second specificity STS have pointed to is the mounting role think tanks and other global expertise bodies play in parallel with the decline of inter-national organizations. This somehow balances the moves linking the advent of the global and democracy, which originate in the turn toward participation, empowerment or users involvement that many international organizations have put forward since the early 1990s.

When translated in the health sector these major patterns point to as diverse entities and processes as the Gates Foundation and Global Found to fight Tuberculosis, Aids and Malaria, the generalization of patents, the massive production of generic drugs in emerging countries like India or Brazil, the development and circulation of stem cells or genetically engineered vaccines, the creation of the European Medical Evaluation Agency, the delocalization and international harmonization of clinical trials, the visibility of antibiotic resistance and obesity in the former Third World among many others.

The aim of this project is to historicize and to localize the idea of the transition from international to global health in order to focus on processes of globalization rather than global health; thus avoiding essentialist debates about the true nature of the global or the mere definition of categories. History is needed to balance a widespread fascination for most recent innovations, be they technical, institutional or social; a fascination, which results in the danger of taking the tree for the forest, the future for the present, the experimental for the routine. Assessing the past in the present, i.e long-term patterns and continuity, is indispensable to understanding the degree to which global health is both global and new. On the other hand, the present should also be read in the past. Historical work on international public health needs to be more directly confronted to social studies of global health. Not only because all changes can't be reduced to the idea of old wine in new bottles, but also because such work will change our understanding of the period after WWII.

Localization is needed because the 'international' or the 'global' are not given but complex and collectively constructed realities. Due to their visibility, their size and literary production, macro-actors and their deeds, beginning with nation-states and umbrella organizations like WHO or the World Bank, tend to attract attention. As the term 'glocal' crafted by anthropologists reminds us: globalization does not exist outside processes of generalization from – circulation and aggregation of - local practices while any global agenda or program only becomes real when adopted, resisted and adapted by local actors. In order to approach the 'glocal' one must therefore combine levels of analyses, multiply angles and approaches, i.e. look at the production of path breaking world health reports in New York or Geneva, follow the circulation of international experts seeking to implement programs in national contexts, and observe work - related or unrelated to global aims - in local research, treatment or management sites.

Two additional motives for renewed investigations of health globalization originate in the status of the existing literature. First, public health actors understandably looking for operational targets have provided a majority of the documentation on the transition decades. This often leads to downplay conflicts and tensions, to equate the advent of global health with progress in meeting the health needs of the majority of the world's population. This equation is not altogether misplaced for instance because a once 'neglected' disease like tuberculosis has come back to the fore; health initiatives are now participative and want

patients to take responsibility for their own care. Patterns are however more complicated, outcomes of these changes less straightforward and positive than hoped for. Second, two different genres have until now dominated the more social science oriented corpus: geo-political and institutional analysis on the one hand, anthropological field work on the other hand. The price paid for this polarity is the difficulty to link investigations of local knowledge and practices to broader issues of power and government, and more particularly to the role new forms of knowledge production, their appropriation and use play in the global expertise of health.

The object of study

The object of the project is a social and historical study of the transition from international to global health (Birn 2009, Brown 2006). This transition will be approached in terms of actors, forms of knowledge, tools and practices. The project focuses on the tensions and social dynamics underlying the following core issues:

a) The **reconfiguration of health economic governance around the markets**, which has taken two specific dimensions beyond the general departure of industrial and economic policies from Keynesian perspectives: the generalization of intellectual property rights on health products and that of new tools of government like costs-benefits analysis. From the 1950s-60s onwards, the increasing industrialization of therapeutic agents led to a new proprietary economy centred on patent rights, generalized after the creation of WTO and the signature of the TRIPS agreement in the 1990s. These intellectual property rights have been legitimized as critical incentives for private innovation and become essential but highly contested elements of health policies (Parry 2004, Rajan 2006, Walby 2006). In parallel, within a context of major reforms of public management and under the leadership of institutions like the World Bank, epidemiology and economic calculus have played a central role in changing the relationship of health to development (Staples 2006, Sidiqi 1995, Rao 1999). Health investments are now currently advocated as better means to combat poverty, especially when health and environmental costs of "classical" development strategies are taken into account.

b) The **emergence of post-national institutions of health governance**. The first decades after World War II have been a time of large scale, technology laden international health programs and initiatives (beginning with the malaria or smallpox eradication campaigns) supported by nation-states and the organizations of the UN system (Amrith 2006, Bhattacharya 2006, Cueto 2007, Lee 2009). Since the 1970s, these 'top-down' programs have been increasingly criticized in the name of efficacy, community-based care and local knowledge (Webb 2008). Given the decline in the level of state-based permanent funding, international organizations like WHO have in parallel placed a strong emphasis on networks, alliances and private-public partnerships whose role in challenging the the power of major players like big NGOs, northern governments or multinational pharmaceutical companies remains questioned (Muraskin 2005, Page 2007).

c) The **limits of the therapeutic revolution and access policies**, which means that – in spite of the discovery of major novel therapeutic classes up to the 1970s and an increased access to medical care in developed and (even if still very uneven and hierarchical) in developing countries – debates about the crisis of pharmaceutical and biomedical innovation have become pervading. These do not only target problems of costs and unequal distribution of therapeutic agents but also issues of exhausted R&D pipelines, social and medical side- or adverse-

effects, i.e. "resistance problems" or "neglected diseases" for which there is barely any significant research (Farmer & Sen 2004, Petryna & Lakoff 2006). Biomedicine as problem as well as solution has thus become central in the post-80s debates about the priorities of health government (Petryna 2009).

d) The **epidemiological transition and the management of risks.** The retreat of infectious diseases has not only resulted in new challenges in the form of chronic pathologies affecting people in Europe or in North America as well as increasingly larger populations in so-called mid-income countries, but was also simultaneous with the (re)-emergence and “chronicization” of diseases like malaria, tuberculosis or Aids creating unprecedented situations of patients affected with multiple pathologies (Livingstone 2012). In parallel, the management of both chronic and infectious disorders has increasingly become a question of risk assessment and risk management. This implies the spreading of epidemiological tools like probability calculus, risk factors, cohort studies, high risk groups or the extension of disease surveillance networks and also of notions like autonomy, choice or responsibility for one’s own life conducts.

Rather than looking solely at international institutions and their transformation, our approach of the peculiar assemblages of science, medicine, economy and politics associated with global health will focus on the various arenas and activities associated with the framing and handling of diseases. The practices of health globalization will be explored according to three main dimensions: the actors involved, the tools they mobilized and the health targets or categories they select. The processes the project will analyze in priority include: a) the making of knowledge and the conduct of expertise at the local and international level, with a special interest for the work and circulation of so-called “global” experts; b) the production, distribution and commercialization of medical products, with a particular interest in drugs and therapeutic agents; c) the various of regulation involved in the management of prevention and clinical care, with a peculiar interests for the role of professional and academic bodies, national authorities and international organizations involved in the design and implementation of public health programs.

The project seeks to explore a socio-historical scenario based on the idea that the multiple practices of globalization, which have existed or appeared since the end of the Second World War can, for analytical purposes, be explored as constituting two different regimes: the regime of international public health, which dominated the first four decades of the postwar era and the regimes of global health, which gradually stabilized during the past two decades.

Within the twentieth century regime of international public health, the control of selected infectious diseases, especially smallpox and malaria dominated the agenda (Howard-Jones 1981, Bhattacharya 2006, Cueto 2007, Lee 2009). Eradication campaigns were considered central initiatives of WHO and other inter-governmental bodies. Eradication was generally understood as a technological problem to be dealt with through standardization, expert evaluation of needs and benefits, and centralization. UN agencies as well as major US foundations coordinated these programs, i.e. defining the targets, the means of intervention and providing some of the infrastructure (notably vaccines for smallpox and insecticides for malaria). During this first period, drugs or clinical care played a secondary role compared to prevention strategies, which mobilized vaccines as well as social control in the fight of infectious diseases. These programs appeared critical to the reconstruction of post-war Europe as well as for the stabilization of African and Asian colonies (Staples 2006). This landscape started to change in the 1960s. The change is to some extent the product of a new sociopolitical environment associated with the Cold War and the East/West divide on the one hand, the decolonization and emergence of numerous new nation-states whose economical, social and political life focused on the "need for development" (Sidiqi 1995, Amrith 2006). It is also the product of the emergence of

biomedicine as the dominant form of medical knowledge and as the basis upon which a rapid expansion of therapeutic tools could be foreseen. This is the period of a massive expansion of the pharmaceutical industry, of its research as well as commercial capabilities, and of the consumption of chemotherapeutics in the United States, and in Europe (East and West). Echoing the mounting legal and administrative regulation in nation-states, the international health agenda thus started to address the question of clinical evaluation, toxicology and detection of adverse effects. One additional dimension of this "drug and development" regime are the rising interests in chronic diseases fuelled by the idea of an epidemiological as well as demographic transition, as a stage of development supposedly achieved (in the North) and sought for (in the South).

The mid-1970s is a major turning point as it opened official international spaces for **criticism of international public health and its programs,** which paved the way for the regime of global health. The Alma-Ata conference the WHO organized in 1978 is a well-known episode linked to the context of decolonization and mounting influence of a self-defined "Third World". The criticism of the eradication programs (Litsios 1997, Lee 1997, Webb 2008) and of the inadequacy of biomedical technologies in meeting the needs of the poorest populations brought to the fore a model of more simple technologies, primary health care, and basic medical needs. Renewed interests in “social health" were not only translated in central and local initiatives to provide access to “essential” therapies but also in discourses and projects for "modernizing", "rationalizing" and "integrating" traditional medicines. By the mid-1990s, **the end of the Cold War and the neo-liberal phase of economic globalization** did not only undermine the "Third World" coalition and the centrality of the WHO but also provided another model of development focusing on liberalization policies, minimal state, civil-society empowerment and high tech investments (Petryna 2006 and 2009). This model is at the core of contemporary global health. It has been translated in health policies through an increasing emphasis on local and capacity building initiatives, individual choices and risk management; these changes being carried out by a multiplicity of actors ranging from the World Bank to charitable foundations like the Global Fund and a myriad of health- and community-related NGOs (Muraskin 2005, Page 2007, Rao 1999). Interests in risk epidemiology and biotechnology strengthened the importance of chronic disorders as global rather than Northern or post-development problems, obesity or mental disorders but also genetic diseases. Issues of infectious diseases and epidemics instead of vanishing however gained a new visibility, for instance with the Aids epidemic and the "global return" of tuberculosis. This fuelled new research on chronic or “chronicized” disorders (Farmer 2004, Livingstone 2012) as well as controversies about "neglected" diseases with multiple initiatives to avoid "market failures", I.e. generic production, private-public research partnerships, foundation-based distribution programs (Cassier 2010).

This scenario should however not be viewed as a simple replacement or substitution model. For instance the eradication and other central programs typical of the first wave of health internationalization have not disappeared. They are still with us although the assemblage of actors, tools and targets they involve are profoundly changed.

The research strategy, its benefits and wider significance.

The practices of health globalization the project seeks to investigate will be explored at several levels, i.e. international, national or local; building on the idea that processes of globalization proceed from moves of generalization and localization; that the circulations making things global emerge from and result into local practices. The project will combine historical and anthropological studies, the project will explore a scenario based on the idea that the multiple practices of globalization, which have existed or appeared since the end of the Second World War can, for analytical purposes, be explored as constituting two different regimes: the regime of international public health, which dominated the first four decades of

the postwar era and the regime of global health, which gradually stabilized during the past two decades.

Within the regime of international public health, the control selected infectious diseases, especially smallpox and malaria dominated the agenda. Eradication campaigns were considered central initiatives of WHO and other inter-governmental bodies. Eradication was generally understood as a technological problem to be dealt with through standardization, expert evaluation of needs and benefits, and centralization. UN agencies as well as major US foundations coordinated these programs, defining the targets, the means of interventions and providing some of the infrastructure. During this first period, clinical care played a secondary role compared to prevention strategies, which mobilized vaccines as well as social control in the fight of infectious diseases. The mid-1970s is a turning point as it opened official international spaces for criticism of international public health and its programs. The Alma-Ata conference the WHO organized in 1978 is a well-known event linked to the context of decolonization and mounting influence of a self-defined "Third World". The criticism of the inadequacy of biomedicine in meeting the needs of the poorest populations brought to the fore a model of more simple technologies, primary health care, and basic medical needs. Renewed interests in “social health" were not only translated into central and local initiatives to provide access to “essential” therapies but also in discourses and projects for "modernizing", "rationalizing" and "integrating" traditional medicines.

By the mid-1990s, the end of the cold war and the ensuing neo-liberal phase of economic globalization did not only undermine the "Third World" coalition and the centrality of the WHO but also provided another model of development. It focused on liberalization policies, minimal state, civil-society empowerment, high tech investments. This model is at the core of contemporary global health. It has been translated in health policies through an increasing emphasis on local and capacity building initiatives, individual choices and risk management; these changes being carried away by a multiplicity of actors ranging from the World Bank to charitable foundations like the Global Fund and a myriad of health- and community-related NGOs. Interests in risk epidemiology strengthened the importance of chronic disorders as global rather than Northern or post-development problems, obesity or mental disorders but also genetic diseases. Issues of infectious diseases and epidemics instead of vanishing however gained a new visibility, for instance with the Aids epidemic and the "global return" of tuberculosis. This fuelled new research on chronic or “chronicized” disorders as well as controversies about "neglected" diseases with multiple initiatives to avoid "market failures", i.e. generic production, private-public research partnerships, foundation-based distribution programs.

At first glance, such a scenario seems to advance a grand historical narrative calling for a palette of investigations, which could – even with an ERC grant – raise concerns about feasibility. Instead, the project will approach our basic research questions through a series of specific and local studies in order to develop and trace patterns of health globalization. The selection of these case studies is based on three steps: 1) relate the core issues to particular segments of the medical and public health domains; 2) focus the investigations to be pursued within each of these fields on one or two case studies associated with peculiar health targets in highly specific situations. In this way actors, forms of knowledge, discourses, tools and modes of intervention can be analyzed in parallel; 3) consider the case studies not only within their local and concrete historical settings, but in relation to international health management and more general social and economic patterns. This will allow for detailed investigations of the double processes of generalization and localization, which globalization of health is based on. The postwar history of the selected fields is long enough to reveal significant transformations related to the four core issues the project investigates. The interest of their combination resides in the possibility of analyzing the globalization of: a) regimens and treatment programs (tuberculosis); b) a public health category or problem (mental health); c) industrial products (traditional medicine-derived

herbal preparations); d) a new medical specialty (medical genetics).

The four fields selected here are tuberculosis, mental health, traditional medicine and medical genetics.

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A. The return of tuberculosis as world-wide neglected disease: globalizing the DOTS regimen

Using the therapeutic management of a major infectious disease as the entry point, this segment aims at empirical studies on the framing of a biosocial disease and the international implementation of strategies to control it over half a century. A major international- public health concern until the 1960s with multiple causality of the disease has led treatment of TB to sweep the entire range of therapeutic practices, from social control policies to drugs. While TB had been the iconic social disease of industrial societies thus giving priority to institutional treatment and assistance, WWII was a turning point (Parckard 1989, Worboys 2006). Under the auspice of UN-organizations, BCG vaccination came to be widely organized with specific antibiotic therapies dominating care in developed countries while BCG vaccination campaigns in developing countries could be framed as a medical strategy of modernization. By the 1970s, TB was considered eradicated in the former and medical specialists of lung and respiratory diseases faced a professional crisis. At the same time WHO put on hold its TB expert committee that had held 9 meetings between 1947 and 1974 and pharmaceutical firms stopped their investments in anti-TB drug research programs.

The main inquiry will focus on the path which led the World Health Organization to reinstate its program against tuberculosis in1995 in response to a resurgence of the disease driven by the new HIV epidemic sustained by poverty rates, but within a changing institutional landscape with the mounting interests of the World Bank in health management and the critiques of the absence or poor performance of tuberculosis control programs in the South (World Bank 1993). Several things differentiate the global tuberculosis of the 1990s and after from previous decades beyond the mere co-infection with HIV: it is considered ‘neglected’ both in terms of access to chemotherapeutics and of research investments; it is a threat of world dimensions requiring standard tools, integrated and centralized programs within the framework of a global strategy. An alarming rise of multi-drug resistant cases is the object of major concerns with on-going monitoring of the risks, i.e. the circulation of strains and the organization of chemotherapy (Kim et al 2005).

International actors, beginning with WHO, accordingly implement different approaches than previous programs. Directly Observed Therapy short course (DOTs), which became the preferred approach in the early 1990s, reflects the insight that control of antibiotic resistance is less the consequence of intrinsic failure than the consequence of bad administration of treatments. Solutions are therefore to be sought in standardization of tools and protocols, surveillance and control of patients to insure compliance, good organization and performance assessment (Harper 2010).

Another dimension of global TB is the emphasis international actors place on public-private partnerships. Between 1990 and 2010 global bodies focusing on tuberculosis reduction (Stop TB Partnership, the Global Fund to Fight AIDS, Tuberculosis, and Malaria; the International Union Against Tuberculosis and Lung Disease; as well as the WHO Stop TB Strategy) proliferated. These partnerships focus on questions of drug research and access rather than public health policies. They nonetheless promote a novel discourse about health governance, which stresses flexibility, accountability, communication and users/patients participation.

Questions to be investigated in this segment are

1) What are the origins of DOTS? How does the strategy relate to previous schemes and activities investigating or seeking to implement TB chemotherapy in the South (for instance the 1960s-70s chemotherapy trials in India)? How was the question of resistance to TB antibiotics dealt with and transformed from the 1960s on when the question was deemed a mere technical problem whose solution was more innovation? How did the components of DOTS make their way through the work of international TB experts beginning with experimentations in South-East Africa or New York? How did institutions like the World Bank, which were outsiders to international health size up the issue and build their own expertise?
2) How are DOTS programs conceived and operated (with which tools?) in utterly different social, institutional and economical contexts ranging from countries facing major crises of state and public health institutions (in East Africa) to so-called emerging countries (Brazil or India) with a long history of health and development policies but facing huge social and economical inequalities? How are the risks of resistance risk assessed and managed? With which tools both locally and globally? How do TB programs balance in practice the contradictory commitments to disciplining and empowering patients?
3) How is the private—public boundary worked out? How do the new partnerships for TB drug research and development handle diverging agenda and interests between international agencies, NGOs and the industry? How do they relate to previous initiatives to foster drug access in the South, regulate markets and negotiate intellectual property rights like the WHO program for essential drugs? How was the crisis of nation-based, horizontal, primary health care, which dominated the WHO agenda up to the 1990s worked out and translated into such alliances?
4) Which tools and practices of drug standardization, quality control and certification have emerged in the context of global TB programs? To which extent do 'new' global philanthropic foundations like the Gates differ from 'old' foundations like the Rockefeller whose role in the shaping of international health was critical?

Beyond the published scientific and medical literature available in the main databases sources for this segment will include: 1) archives of 'global' institutions and their programs: first WHO, SEARO (WHO Regional Office for South East Asia) and the World Bank where documents regarding the tuberculosis committees established since the 1960s, the expertise of antibiotic resistance since the 1950s, chemotherapeutic research and drug access policies or the 1993 *Global Health Burden* inquiry are available ; 2) interviews with international TB experts and the settings where they have been active outside including national TB committees, Stop TB Initiative, the Global Fund and the International Union Against Tuberculosis and Lung Diseases. This will help analyze the initial trials of the International UATLD in Tanzania and Malawi in the 1980s. These reverted the earlier inclusion of TB-control into general health care in favor of DOTS. Another important issue is the growing association with HIV in Sub-Saharan Africa and the ensuing spread of drug-resistant TB that were specifically addressed through the Stop TB Initiative after 1998 and the inclusion of tuberculosis among the targets of the Global Fund after 2001; 3) observation of the present national DOTS programs, their design and local implementation. The main case chosen is that of India where the PI has done preliminary work to identify relevant sites.

B. Placing mental health on the world health agenda: globalizing a refractory problem

Mental health is the paradox of health globalization. Although part of WHO's founding definition of health, mental health's integration was problematic. After World War II, psychiatry struggled for legitimation as a sub-discipline of medicine, which still questioned the material reality of mental illness. Mental disorders lacked biological markers, as they do today. Psychotropic drugs - indirect evidence of physiological processes - circulated widely only by the late 1950s. And psychiatric classifications, like related indigenous categories, depend on subjective reporting, are embedded in biographies and heavily influenced by social and cultural determinants. The very notion of "mental health" has varied widely since the WHO's founding, with tensions between biomedical concepts of "psychiatric disorder",

"schizophrenia" and "depression" and hazier, psychosocial concepts like "mental health" or "well-being". Yet by 2000, mental health was largely conflated with depression, itself considered a worldwide problem, albeit in variant forms (Good and Kleinman 1986, Kitanaka 2010). Most importantly, WHO estimated depression to be the 4th leading cause of *all* disease burden (Ustun et al 2004) This segment of the project will trace the globalization of mental health using three analytics: a) the construction of psychiatric epidemiology internationally as the primary tool for establishing mental illness as a universal disorder; b) schizophrenia as the disorder through which universality was sought; c) depression as the exemplar of globalization of mental health categories and treatment practices.

At issue in the development of global mental health is the very definition of the entities and objects of intervention targets and tools. We will focus on the central role WHO played in this process through the construction of an international psychiatric epidemiology canon and the development of related tools, including the addition mental disorders to the international classification of diseases. International health depended on a universally applicable definition of mental disorders for estimating morbidity data, for international comparisons and common prevention and treatment strategies across the world. In the absence of validity, psychiatric epidemiologists, statisticians and psychiatrists sought "proxy" indicators, such as inter-rater reliability, internal coherence measures of psychiatric constructs and consistency of rates across settings. Underlying these efforts were tensions between the epistemological and practical search for a scientific psychiatry (i.e. demonstrating universality of categories) and sensitivity to etiological and local practical effects of social and cultural environment. Mental health as a universal aspiration displaced dominant psychodynamic traditions and post-colonial psychiatry dominant by the early 1960s, culminating in a more interdisciplinary "new cultural psychiatry" in the late 1970s. The biomedical perspective was further reinforced by the rapid growth of psychotropic drugs and the standardization and circulation of nosological tools like the DSM – 3rd edition (1980). Today, psychiatric epidemiology has again arisen as necessary to globalization, to counter claims of mental health as refractory to objectification.

The second analytic involves the 25-year history and follow-up of international research on schizophrenia, originally considered a disease of modernity (McCullough 1995). WHO efforts in collaboration with consultants across the world, including the US National Institute of Mental Health (NIMH) and academic anthropology resulted in the International Pilot Study of Schizophrenia (IPSS) launched in 1964 (Hopper et al 2007). The study yielded one of the most enduring and enigmatic results for cultural psychiatry: that prevalence of schizophrenia was similar in developed and developing countries, but prognosis far better in the latter. It also contributed to the development of standardized diagnostic instruments, tested the feasibility of psychiatric epidemiological methods and helped redefine the concept of psychoses. While it is also the WHO-based action program for world mental health, lack of resources and stigma lessened its effectiveness internationally (Desjarlais et al 1996). Schizophrenia is the again targeted by globalization through new alliances, including researchers and institutes in LIC, the incorporation of mental health by NGOs, multiplication of schizophrenia research outside the IPSS and WHO's positioning of schizophrenia at the top of the treatment gap rankings. We will focus on schizophrenia to examine the shift from early international health processes to globalization, including oft locally-resisted circulation of researchers, practitioners and research tools (e.g. through LMIC "hubs"; the NIMH and Global Alliance for Chronic Disease's "Grand Challenges in Global Mental Health Initiatives" (Collins et al 2011); the relationship of WHO to these initiatives) the spread of global mental health as an academic discipline, the linkages between pharmaceutical industry and international mental health assessment research, the expansion of mental health in health and human rights.

The third analytic concerns the transformation of depression from a minor psychiatric category focused on clinical severity (i.e. melancholia) into a moderate disorder, widely diagnosed with brief symptom scales and managed by general practitioners and primary

health centers. The focus will be the development, circulation and uses of the first (1960s) and the second (1990s) generation of anti-depressants in mediating this transformation of depression into a world phenomenon, in interaction with the standardization of diagnostic tools and scales promoted by international organizations and major actors in global health, beginning with the WHO. The rise of depression as a category for research and action is also linked to decline in clearly defined roles and forms of authority and accompanying demands on the individual for performance, responsibility and autonomy, resulting in a "weariness of self" (Ehrenberg 2009). Depression also emerged from the 1970s on as an iconic disorder of poverty, gender relations and work conditions. The generalization and shaping of depression if further attributed to the relationship drug producers developed with physicians through intertwined investments in clinical trials and scientific marketing (Healy 1997). However, that relationship is poorly investigated outside Europe and North America. This section will thus focus on the problematic introduction of depression as a mental health category in India. Although depression became a WHO target priority beginning in the mid-1980s, the impact of these mental health programs in India remains questionable, not only from lack of program resources but also in terms of its social and cultural inadequacy in Indian contexts. Nevertheless, diagnoses of depression are increasing, in association with a growing use of psychotropic drugs (Nunley 1996), especially in relation to the changing status of the elderly and its psychosomatic dimensions.

Questions to be investigated in this segment of the project are:
(1) How did psychiatric epidemiology emerge and by whom was it constructed as an international issue? What was the source and effect of the impact of mental health within WHO? What has been the role of self-defined 'global' experts circulating between WHO, other UN organizations, professional associations and national health institutions? How did epidemiology shape the relationship of WHO activities and positions on mental health and policies? How has it evolved, been resisted or accepted at the local levels?
(2) Which tools and practices have been mobilized by whom and with which consequences for crafting international mental health standards, i.e. disease classification, diagnostic manuals, rating scales, rapid assessment, treatment regimens? When and how did risk categories enter global psychiatry?
(3) What is the role of the pharmaceutical industry in mental health globalization? How did psychotropic drugs diversification and marketing shape research and treatment?
(4) How are the categories of global psychiatry, like schizophrenia and depression accommodated today in non-Western medical, social and cultural contexts? How is the WHO primary care agenda translated locally? What adaptations and resistances are involved? How is the increased antidepressant use related to changing demographic and family structures?

The sources for this study are:
(1) For psychiatric epidemiology, published documents and archives (WHO, Yale University, NIMH, and WHO collaborative centers, including Chennai (India) and Nathan Klein Institute (U.S.) and interviews with surviving pioneers of international epidemiology.
(2) For schizophrenia, in addition to the examination of global mental health initiative data and controversies in grey and published literature, three field sites central to WHO international schizophrenia research efforts are: Chennai (India), Santiago (Chile) and Aro (Nigeria). Each has documentation, active clinics and research institutes, local researchers, psychiatrists and advocates active in globalization related to schizophrenia and will allow interviews of participants and observation of how globalization processes translate into local practices.
(3) For depression in India, written sources include reports and studies of the Indian Psychiatric Society, archives of WHO (Geneva and Dehli) on the activities of its mental health committees; of pharmaceutical industry (Ciba-Geigy, Roche) on the commercialization of psychotropic drugs; of the Indian Ministry of Health on the national mental health programs. Interviews and fieldwork will be conducted at the National Mental Health Institute

in Bengalore, in at least one psychiatric clinic (preferably Madurai where depression was already an issue in the 1970s) and one primary health center or elderly-home (preferably in Kerala where mental health and depression is discussed in the context of renewed development policies).

C. Traditional herbal therapeutic preparations: globalizing alternative industrial products

From the late 1970s onward, WHO, nation-states like China and India as well as local firms and practitioners of non-western medicines have sought to put the question of the making, evaluation and uses of herbal preparations on the agenda of international health. In 2010, this seems to be a huge success: bio-prospection and ethno-botanical surveys in collaboration with industry flourish; the protection of traditional knowledge is an object of international negotiations; the markets for mass-produced herbal medicines link Europe, the United States, Asia and Latin America; they are subjects to international regulations for production, registration and quality control; they are elements in heterogeneous treatment strategies targeting chronic disorders juxtaposing biomedical and so-called alternative and complementary therapies. This segment of the project will explore this dual industrialization and globalization, taking India as a case study. Here the focus will be place on the relations between: a) multilateral agencies, the state and the private sector; b) apparently incommensurable systems of medical knowledge. These questions will be approached through three intertwined sets of practices: therapeutic evaluation, international and national market regulation, public health policies and integration.

A UN program on traditional medicine was formally defined in 1977 when WHO World Health Assembly started encouraged member states to “integrate” traditional medicine in their national health programs. By that time, the perspective consisted in incorporating traditional healers into official healthcare systems, primary health care centers in the first place. It also seek: 1) to encourage the study (above all medical) of traditional medicine; 2) to examine the benefits of traditional medicine in the light of “modern science” so as to maximize efficacious health care practices, and 3) to promote the integration of traditional practices, proved to be efficacious and non-toxic, with biomedicine. This agenda of efficacy and safety assessment proved one of the most long lasting and the most difficult targets of international health activities (Akerele 1987). The tensions between the molecular and statistical paradigm of modern trials on the one hand, the complex nature of traditional preparations and the "holism" of medical categories judged to be inherent in traditional medicine on the other hand were essential. Integration meant a challenging search for bridges between diverse medical paradigms and epistemologies, the translation of incompatible classifications and disease categories, for testing systems amenable to the poly-herbal nature of many traditional therapeutic preparations. These tensions presumably played a significant role in the eclipse of traditional medicine that seem to characterize WHO and health international organizations in 1990s – at least at their central level. Paradoxically, the renewal did not come from international health policies but from a general recasting of traditional Asian medicines (Janes 2002; Langford, 2002) and from the market and national policies (public and private) aiming at the industrialization and mass production of alternative and/or traditional therapeutic preparations.

The contemporary industrialization of traditional medicine in India (Ayurveda and Unani) reflects this move in an exemplary fashion. New ‘traditional drugs’ are created and mass-produced for the biomedical disorders of a cosmopolitan (national and foreign) clientele (Banerjee 2009; Pordie 2010). These products are industrial mass-produced polyherbal preparations combining the reference to tradition and modern pharmacology in unprecedented ways. They do not originate in a simple 'biomedicalization' but in a complex work of 'reformulation', which 'mines' the traditional recipes, simplify compositions to make them amenable to industrial processing, recombine plants to target these chronic diseases giving a difficult time to biomolecular pharmacy, explore forms of evaluation mixing

biomedical and holistic categories (Gaudilliere & Pordie 2012). These processes of re-formulation are not only advanced by a new generation of local firms or by professional bodies of practitioners, they benefit from the support of the state, for instance in matters of patenting, pharmacopoeia, and Good Manufacturing Practices (GMP). This industrialization indicates more generally the social recasting that is at work in learned traditional health systems, which address to an ever lesser extent the most destitute and increasingly the growing urbanized middle-class.

Indian traditional health practices are rooted in holistic medical systems that have been formalized and taught for centuries before their institutionalization and nationalization during the late colonial and post-colonial periods. One peculiar dimension of the transition to global health is that their promotion now revolves around the manipulation of *material medica* and the uses of plants. It is therefore linked to issues pertaining to the exploitation of biological resources. The Traditional Knowledge Digital Library established in 2000 by the Indian government to protect the classical formulas of Indian medicines from patenting in Europe and in the United States is for instance extending its program of inventory to tribal medical knowledge, thus raising new questions of formalization and appropriation. In a parallel process, the National Medicinal Plants Board is equally dealing with Ayurvedic plants supply and problems of conservation, community empowerment and benefit sharing. An interesting contrast to this embodiment of the question of biodiversity, its uses and commercialization within the world of traditional medical systems will be the case of Brazil where the management and the uses of medicinal plants have predominantly taken the form of ethno-botanic and bio-prospection surveys conducted in collaboration with US and European biotechnological institutions looking for purified active molecules to be mass produced through chemical synthesis.

Questions to be addressed in this segment are:
1) Why and how did actors WHO and peculiar nations, India and China in the first place, push traditional medicines within international public health? What was the role of issues of 'affordable' medicine and primary care policies central in Alma-Ata's 1978 conference and its aftermath? How did the new context and actors of the 1990s transform the place and international regulation of traditional medical knowledge and products?
2) What kind of practices are involved in the reformulation of traditional preparations? What is the impact of state- and industry-based regulations? What is the extent of the alignment onto biomedical categories and norms?
3) How have national and more local 'integration' policies been designed and implemented? To target which population and health needs?
4) How are reformulated preparations inserted in the proprietary economy of health? With which tensions opposing the creation of property rights to construct markets and the protection of 'common' corpuses of traditional knowledge? What tools did national and international bodies developed to these effects?

Given the two levels of this segment the sources to be used include: 1) the archives and the written documentation originating in the World Intellectual Property Organization, the various WHO and SERAO committees on traditional medicine on the one hand, the AYUSH (Ayurveda, Yoga, Unani, Sidha, and Homeopathy) from the Indian Ministry of Health on the other hand; 2) interviews and fieldwork conducted at the Indian Traditional Knowledge Digital Library in Delhi and in two major firms, Arya Vedya Sala (Kerala) and Himalaya (Bengalore), where the objective will be to reconstruct the trajectory of specific formulations targeting the Indian and the global market.

D. Medical genetics and genetic testing in the South: globalizing a medical specialty

Medical genetics has become a matter for international health only in the context of the recent and massive efforts toward the sequencing of the human genome and the

development of DNA-based biotechnology (Gaudilliere 2006, Parry 2004, Rajan 2006, Rose 2007, Waldby 2006). Its present globalization involves two different dimensions: 1) the internationalization and coordination of research activities, which are deemed indispensable not only achieve the large programs associated with the collection of data on the diversity of human genomes, of their functioning in cells and tissues, of their relations to pathologies, but also with biotechnological innovation, i.e. with the development of therapeutic means of intervention (genetically engineered cells, monoclonal antibodies, designed proteins, etc) beyond the mere use of DNA sequences for diagnostic purposes; 2) the generalization of genetic testing services and prevention policies, first of all within the framework of the new reproductive medicine and prenatal diagnosis. Developments taking place in Europe or in the United States as well as the creation of a transatlantic biotechnology space since the 1980s have up to now attracted most attention and are reasonably well known. Medical genetics in the South is in contrast poorly investigated. The processes grounding the emergence of medical genetics services and that of biotechnological research infrastructures will be explored in two different regional contexts: India and the Arabic peninsula.

Genetics entered the agenda of international health in the 1980s when WHO started to consider the need for “community genetics” programs, whose aim would be to organize the screening of high-incidence hereditary disorders and to provide counseling to minor the risks of transmission. In 2005, given the significant reduction in costs and the standardization of diagnostic tools, this perspective was translated into a policy of integrating medical genetics within the palette of WHO recommended primary care services. The cases of Oman or Saudi Arabia however reveal that local policies of genetic screening practices were put in place long before this commitment (Beaudevin 2010). Benefiting from the financial resources of oil exploitation, the former country has for instance instantiated population screening of hereditary blood-disorders, which builds on the type of consultations, human geneticists have advocated since the 1970s. This apparent transfer however raises difficult issues of localization regarding the availability of tools, the definition of risks that should become targets of public health interventions given the costs of treatment, the limitations of free-choice and informed consent when families and political authorities do not operate on the basis of individualistic and user-oriented predicaments, the relations between representations of heredity, race and ethnicity. A second layer of globalization, focusing on the circulation of genomic expertise, has surfaced more recently with the launch of common projects like the Arab Genome Project or the Center for Arab Genomics Studies (in Dubai), which associate US academics, biotechnology start-ups and local geneticists. Such ventures seek two aims the articulation of which is far from obvious: to collect and evaluate molecular data relevant to international genomics and to promote medical genetics as a legitimate and recognized medical specialty.

The case of India will contrast this peculiar localization of medical genetics in two respects. First, medical genetics there has not emerged as a public health phenomenon. Recent initiatives have concentrated on the institutionalization of the specialty with the creation of the Indian Society of Human Genetics and the introduction of courses in medical school training but testing centers are rare, often private like the Sir Ganga Ram Hospital in New Dehli and addressing the demand of the new urban middle-class, while the establishment of national screening programs, first for genetic blood disorders has been proposed by the new professionals but, up to now, without concrete consequences. Issues of costs and access often come to the fore in the discussions about such programs but other motives ranging from the global evaluation of the Indian ‘health burden’ and local representations of heredity play a significant role. Second, and in contrast to this non-priority, genomics research is strongly supported if only as a consequence of its potential for biotechnological innovation. India is thus advancing its own version of translational research where translation is not only an issue of bench and bedside relationship, but also a problem of translating community health needs in biomedical investigations. Beyond its participation in international projects like the International Cancer Genome consortium, the National Instiute of Biomedical

Genomics opened in 2009 in West Bengal has thus started cohort studies in Kalyani and Kolkata with a strong focus on the molecular biological understanding of 'common diseases' beginning with tuberculosis and malaria.

The questions to be addressed in this segment are:
1) What kind of processes account for the inscription or the absence of inscription of medical genetics within the local public health agenda? What was the role of WHO institutions and experts? Why and how were screening programs designed? How are they related to population policies and collective representations of risk and heredity?
2) What are the links and the tensions between the import of advanced genomic technologies, the participation in transnational research projects and the demands for local work on common or neglected diseases taking into account issues of social and cultural inequality?
3) How do local adaptation and circulations shape medical genetics as specialty? Up to which point is the Western model of genetic counseling and individual risk management taken up in practice?
4) How does the regulation of testing rely on professional norms and standards? How is this form of regulation associated with the emerging local and global markets for genetic testing?

Given the relative paucity of written documentation beyond the scientific literature and the official reports (from WHO, the national health authorities and the medical societies) the sources used for this segment will mostly originate in interviews and ethnographic fieldwork. The sites envisioned are: 1) in the Arabic peninsula: the Centre for Arab Genomic Studies in Dubaï. the Oman Hereditary Blood Disorders Association, and the firm Eastern Biotech operating in the entire region ; 2) in India: The Genetics Unit of the All India Institute of Medical Sciences in New Delhi, which is the local WHO collaborating center; the Sir Ganga Ram Hospital in New Delhi and the National Institute of Biomedical Genomics in West Bengal.

In order to further comparisons and general analysis of the core issues of the project, the historical and anthropological investigations associated with these four fields will be examined and discussed together in two ways. First, a series of internal workshops focusing on each field will take place during the second phase of the project. They will gather all participants in the project and invited experts in order to discuss specific results in respect to the core issues targeted by the project. Second, a series of international thematic conferences will be organized. The aim of these conferences is not only to bring together eminent scholars working on global health, whether or not they are participating in the project, but also to insert the project within the broader context of the social, cultural and political studies of science and globalization, focusing on the interplay between actors, tools and regimes of intervention. Located in the second phase of the project, three conferences will respectively focus on "Epidemiological transitions, forms of care and risk management", "Markets, health economies and innovations", "Actors, institutions and global health expertise". In addition, two international thematic conferences will be organized. The first conference "How to understand global health?" will take place at the beginning of the project. It will place the projected research into the existing research, address the scholarly community and engage key actors in a witness session. The closing conference "Glo/cal Health: knowledge, actors, practices" will provide a stage to present the projects findings. Special emphasis will be laid on engaging actors from the various field studies in a witness session on the occasion.

What is the general yield of this strategy beyond devising a feasible research agenda designed for a limited period of time? First, it focuses on configurations of knowledge and action while considering the various social worlds participating in international health, i.e. taking into account issues of research, production, clinical work, access and health care organization. Second, it will permit to approach the global as something localized in and

emerging from local practices or cultures. Focusing on specific diseases or products will allow us to move through the entire spectrum of globalization activities, not taking central actors like WHO and their institutional life as the only point of entry but also consider firms and NGOs. Third, it will deepen or understanding of the transition from the political economy of the cold war into the liberal and multi-centric age of uncertainty in which we live. In fact, it will also challenge the established historiography that relies largely on political history by supplying a history of substantial health changes that cannot be reduced to a function of those political histories, but is an integral part of a general history of the present. Fourth, employing different levels of analysis, and their interactions will facilitate symmetrical considerations of North-North, North-South and South-South transfers and circulations, while a peculiar focus will be put on developments in India, a major player in the post-colonial world order. The final and fifth benefit of focusing on specific practices lies in avoiding opposing the "social" and the "scientific," society and knowledge. It will allow us to show how these were in fact inseparably amalgamated in the most basic operations of medical work, rather than one being the context or the outcome of the other.

The project thus seeks to rethink the category of global health in the direction of elaborating it from an actor's category into an analytical category of the social sciences, reflecting on the complex articulations between processes of localization and processes of globalization. Beyond providing data, analysis and specific narratives for the four fields under investigations, the project will thereby offer overarching or theoretical perspectives to the three disciplines it mobilizes:

1. To sociologists and anthropologists it will provide a critique of what are currently considered concepts and actors of global health.
2. To historians it will present means to frame the history of global health in terms of the involved actors, the periodization and in relation to the narratives that are to be employed to place this history into that of the contemporary world at large.
3. To political science the project will offer insight into the politics of global health that reaches beyond the level of global health governance to that of national, regional and local health practices.

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