NEW HEALTH SYSTEMS:
Integrated Care and Equity

Stéphane Callens¹

ABSTRACT
Health inequalities are a growing concern, fueled by developments, real or perceived, of health systems in the world. It is therefore to understand the dynamics that drive health systems, to provide fair architectures and to compare different programs of integrated care that are proposed.
If the persistence of health inequalities is well established, it does not receive a satisfactory explanation provided. The strongly hierarchical societies are deteriorating life expectancy. The most frequently cited mechanism is a stress factor; others emphasize advances in life expectancy in the world. The managements of health risks follow a progressive development, while the habits of the poor lead to consumption introducing many delays. These rules of life also manage health issues.
The ethics of integrated care improves coordination. The expression of medical ethics based on equity is old, as well as the good cooperation of concerns in the health system. The integrated care is the basis of contemporary developments normative frameworks of health systems. The pitfalls encountered are from old definitions of specific areas for social support, the pharmaceutical therapeutic intervention, and finally behavior. Additional focus on quality and risk analysis, integrated care can improve the performance of global health, and combine universal coverage, equity and quality of care.


JEL CLASSIFICATION: I14

1. INTRODUCTION : NEW HEALTH SYSTEMS
A set of transformations leads to talk of new health systems for disease changes, approaches to the management and control of the health system, as well as those resulting from the integration of new technologies (instant communication of medical data from the person, remote management of a therapeutic protocol, new coordination in the health system). All health systems dimensions are affected by the changes underway:
The spatial dimension. A "global health" theme appeared at the end of the previous millennium, after a series of epidemic alerts across the globe. It would, however, 400 million people without any access to a health system in the world. A universal coverage horizon is within range of existing systems. This is enshrined in the United Nations 2015-2030 program, the Sustainable Development Goals (SDG).
The organizational dimension is affected by the change in respective proportions of various diseases. The relative share of infectious diseases dropped sharply during the twentieth century. The management of non-communicable diseases of sick people requires better coordination between

¹ Université d’Artois, France, s.callens@sfr.fr
health and social approaches. A more active role of patients and people is often necessary to prevent and cure diseases that come from lifestyle (dietary practices, compliance, and practice physical activity). The organizational gains are particularly emphasized in the management of health care systems: the approach is consensual, gradual and highlights a common interest.

The health and disease experience changes during the course of the life cycle. Health also connected induced changes. New technologies bring more mobile the aid. The possibility of monitoring vital parameters which is not too binding is a factor in these changes. The improved survival rate after a health accident alters life experiences. People pass through a variety of health accidents, and will often have to live more long-term illnesses.

The theme of integrated care centered on the person is put forward by the World Health Organization (WHO), which has been a work program on this subject for years to come. This is probably a general approach is traced, without assured that the ongoing transformations truly follow directions set by the international organization.

Definition of Integrated Care

« Integrated Care » is a Working program for WHO in SDG (Sustainable Development Goals) period. World Health Organization gives the following definition: "Integrated care is a concept bringing together inputs, delivery, management and organization of services related to diagnosis, treatment, care, rehabilitation and health promotion. Integration is a means to improve services in relation to access, quality, user satisfaction and efficiency." Integrated Care is used by all the health authorities in the world for reforming health system. But it is not sure we obtain less inequality in health.

Definition of Integrated Care

Figure 1 : Coordination prescribed by WHO

WHO declaration in Alma Alta (1978) was a « rawlsian » program for reducing health inequality in the world. This approach for reducing inequality was « upstream » by general improvement of infrastructure. « Integrated care » is more a «downstream » strategy. But optimal policy for reducing health inequality is context dependent.

The plan followed in this contribution consists of two main sections. The first part gives an overview on the health inequalities issues, the second part focuses on sustainable and equitable health systems architectures.

2. INEQUALITY IN HEALTH

The gain in life expectancy on average worldwide was 5 years for the period from 2000 to 2015. Among the countries with life expectancy at birth and the shortest ones at the longest, the gap is 36 years old. But a gap of 17 years in the same indicator is found for London alone, even though the health system provides universal health care coverage. If two countries as diverse as Sweden and
Bangladesh are compared in the period from 1990 to 2015, the purchasing powers grows only in Sweden, while a health system performance indicator, as the survival rate male 65 years, has an even stronger improvement in Bangladesh than in Sweden. On the axis of Changes in Health indicator, there are strongly negative trends (countries with a high prevalence HIV / AIDS) and strongly positive (countries emerging from civil war) with no change in wealth. An axis offset from the average value of increase in health indicator also records variations of great amplitude of wealth (e.g., negative, mining income countries having exhausted its reserves), which did not alter the progression indicator of Health. Only global inequality (and not local) shape health systems in the world.

By giving the value of the overall Gini in econometric models, we found the characteristics of average performance of health systems. In a way, it is therefore a global health system ½ Private and ½ Public, with poor performance in the prevention of early mortality, for example. It tends to reduce the share of unreimbursed health expenses: indeed, globally, the Gini is very high, there is no middle class "global" that can participate in health spending. It costs 6 % of the global wealth. Of the four major types of health systems, namely the "Bismarckian" (social rights only for employees), the "Beveridgian" (parliamentary control of health rights associated with citizenship), the "Alma-Alta" (a care package by health workers) and "Humanitarian-Academic" (a care package backed by a training system), the two first introduced in the late nineteenth / early twentieth have been in a different context of inequality, however, for societies that have completed their first industrialization. Thus, social protection in Sweden is introduced to curb the massive emigration of Swedish workers to the United States in the first half of the twentieth century. The last two types introduced in the last quarter of the twentieth century answer to a situation where global inequality is dominant. The sharp inequality in the world introduces international aid flows and the measures taken by intergovernmental agencies.

The broader underlying transformation is the passage of societies nationally distributed annuities from the primary sector - in this case, the internal inequality is high, but there is not much difference between the various societies - to companies where these revenues become unimportant to those from industries and services. Health systems have developed in the latter context.
In behavioral economics, according to Puri and Robinson (2007), it can be distinguished various "optimism" that can affect the quality of decision-making processes of the individual in relation to his own health:

- "absolute optimism", measured by the difference between life expectancy and declared expectancy actuarial life,
- "social optimism": this is an overestimation of its own capabilities at a comparative evaluation, that is to say, if estimated less fragile and more competent than others, through an individual median of reference,
- "optimism over a field" for example, professional; For example, a fisherman who says his job is not more dangerous than another, then that is objectively one of the most dangerous.

The results of one study on optimism in Health in the Hauts-de-France can be compared to similar surveys conducted after Hurricane Katrina in the United States and in Morocco, “median” country in the international health system. An important "absolute optimism" is present in men, not in women. Procrastination is important before entering care or preventive measure in the Hauts-de-France study. “Social optimism” is more salient in the United States study. “Professional optimism” is associated principally with farmers in the studies.
The founding crises, Beck sociologist refers to as "emancipatory disasters", make the difference with regions that have not experienced them - there are carbon monoxide poisoning and legionella in hospital statistics in Morocco but not placing on the public debate of the issues.

<table>
<thead>
<tr>
<th>risk</th>
<th>Levels of risk management</th>
<th>France (24th)</th>
<th>Morocco (109th in SDG list 2015)</th>
</tr>
</thead>
<tbody>
<tr>
<td>legionellosis</td>
<td>Level I</td>
<td>Noroxo episode comes from a poor technical mastery of installation cleaning</td>
<td>Level 0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carbon monoxide</td>
<td>level I / II</td>
<td></td>
<td>Level 0</td>
</tr>
<tr>
<td>Pesticides</td>
<td>level I / II</td>
<td></td>
<td>Level 0</td>
</tr>
<tr>
<td>Tropospheric ozone</td>
<td>level I / II</td>
<td></td>
<td>Level 0</td>
</tr>
</tbody>
</table>

Figure 5 : Inequality in risk management between France and Morocco

The conclusions reached can be summarized in a proposal: the gradient of health inequalities is powered by widening gaps from degradation processes or improving medical decision. The deterioration in the quality of the decision relating to his own health, comes from personal decisions, family or caregivers on prevention, the time to have the relevant access to the health system, the management of a therapeutic process.

The existence of a hierarchy can help improve decision making, and a favorable situation vis-à-vis business employees rural populations is common. This touch too simplistic vision of Wilkinson (2010), centered on the pathological effects of stress caused by the hierarchy in organizations. The qualities of the process the most critical medical decisions in health inequality is that of the diligence and respect for informed consent.

3. EQUITABLE AND SUSTAINABLE INTEGRATED HEALTH SYSTEM

A Compared approach

An empirical approach of comparing health systems led to the first ranking of health systems based on the criteria of SDG, in 2015. Iceland has been ranked in first place. In a European ranking of efficiency, the country is also well placed, but not occupy the first place. The Icelandic health system has characteristics similar to all European systems of health. In addition, Iceland has very low levels of pollution. Habitat is urban, concentrated on the coastline. There is only one university hospital and seven community health districts for the 320 000 inhabitants of the island. Health system is universal: resided for six months opens social rights. The structural ratio “doctor by bed” is 1.08, for a density of 3.2 ‰ hospital beds. There are twice as
The Icelandic health system is kind “Beveridge”. However, the labor market participation rate is very high in Iceland: only reside on the island that people who work there, and the distinction between a system based on the employees, or residents, is much attenuated.

The Icelandic system is based on the rights of patients. There is no gatekeeper, with possibilities of remedies available to the sick, and a list of pharmaceutical products limited to 3000. Dental remains not reimbursed, which puts out-of-pocket at exactly the rate of average in the World, or 18%.

The computerized information system is unique. However, some practitioners are not connected, and the inclusion of seven local subdivisions poses difficulties which could have been avoided (Sigurgeirsdóttir et al., 2014).

SDG score is very low in country with care supply shortage. For example, “doctor by bed” is 0, 33 in Guinea, and there is a capacity of the whole health system very small. Weakness of Guinean health system is responsible of recent Ebola outbreak, indicating that the performance of a comprehensive health system depends on those of its weak links. The 2002 outbreak of Ebola hemorrhagic fever had reached African countries or in the type of Alma Alta, such as Gabon or in the type-Academic Humanitarian as both Congo, and had been contained. 2013-2015 epidemic indicates that a recovery effort of health systems in Africa is needed.

<table>
<thead>
<tr>
<th><strong>« Alma-Alta » Health system</strong></th>
<th><strong>Academic-Humanitarian Health system</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Universal service</td>
<td>Hospitals and Care centers</td>
</tr>
<tr>
<td>Public health prevention</td>
<td>Operational capacity</td>
</tr>
<tr>
<td>Poorly trained health workers</td>
<td>A professional ethics</td>
</tr>
<tr>
<td>Low operational capability: for example, only 8 % of health workers in Burkina Faso have a proper attitude toward a serious pathology (inequality of competence).</td>
<td>Capacity covers part of the needs, and is only serviced areas where health centers are installed (spatial inequality).</td>
</tr>
</tbody>
</table>

A search for an explanation of non-fulfillment of one of SDG - the decline in mortality of children under five – in Burkina Faso, indicates good access for families to immunization and key drugs. However, health workers are too poorly trained to manage the diseases. A small part of the population in Burkina Faso has access to a health care system; most people resort to informal care, and the poor have no access. The two dimensions of the insufficient supply (health facilities and health worker competence) form the inequality in the health system (Koudiati et al., 2015).
In intermediate scores of ranking SDG 2015, it can be distinguished two health systems groups.

1. Latin America is characterized by high internal inequality, which is also found in Central America and the United States. Health systems have structure ratios between the different lines of care that are equivalent to those of the top ranked countries according to performance. Equity research is understood as a new phase of development for the health system. Schematically, the health system it is constituted as a Bismarckian system, where social rights are reserved for employees of firms. And public health concerns led to the creation of a public agency. Some services are created for the poor in a new phase selective. The result is a segmented health service, with universality more or less complete, with very disparate levels of service because of the health system dualism. In this context, the promotion of integrated care can be seen as a new phase of the health system, trying to arrive at equity (Cotlear et al., 2015).

2. Three common features used to group a set of other countries of Eurasia, in their relation to equity. First, equity is an old figure, like the doctor Sun Simiao, for example shared by traditional medicine and modern Chinese. Structural ratios are not in the canons of the WHO, the ratio of doctor by bed is about 0.5, and the number of beds is much higher than the average for SDG ranking leaders. The integrated care is small scale driven in these countries. Health agencies have a conservative approach. Waiting times come first in health care access difficulties encountered by studies (Raynaud, 2015). In China, the care provided by general practitioners are better than those of others in the front line, however these suffer from a stigma in the population (Zou et al., 2015). Simple ways like a small application facilitating the identification of patients in the professional responsible for the pathology of individuals, allow improves guidance and ensure continuity of care (Shi et al., 2015).

Kindness, equity and neutrality

The ethical basis of integrated care includes those of Sustainable Development and those specific to health professionals. Universal Access and equity are the first two principles (Minkman, 2016). Several typologies have been proposed to classify all ethics in the world. Ogien (2007) proposed to
distinguish between a minimum and maximum bioethics. A universal typology is, in a complementary manner, disclosed for example by Schweder (2000) about the ethical situation in Asia. Schweder proposes to distinguish the ethical autonomy, those in the community (and Schweder insisted on the Chinese situation as an example of this type) and those of purity (logic entirely different from that of risk). In the ethics of community, moral code emphasizes homework, respect and obedience to the authorities; actions must be consistent with the requirements of roles, genders and ages. In ethical purity, the person must remain pure and just, and avoid being soiled or corrupted. The moral codes of purity are centered on the body practices, sexual and dietary restrictions. The definition of an ethic of care is more difficult in this form of moral code. The formulations of these different ethical in the health field can be minimum or maximum. Bioethics autonomy enunciated by Kant is considered maximum by Ruwen Ogien because it includes provisions for self, positive duties to others and collective entities (society, the army ...). Ruwen Ogien (2007) proposes three conditions for the ethical in general, - Benevolence, Equity, and Neutrality - particularly in the area of health:

1. The proposed wording for Benevolence is that of non-sacrifice, in the sense of not harming others. Extended formulations of benevolence were proposed by Confucius. It is developing a virtue from a sense of humanity. This recommendation is reformulated by Mencius in an expression equivalent to that of "primum non nocere", that also retained by Ogien (2007). For Mencius, benevolence is first doing no harm. In ethical charters for the treatment of Alzheimer's disease, this benevolence is declined in the double rejection of any form of "abandonment of care" and "unreasonable obstinacy" (Alzheimer Charter, 2011).

2. Equity or Non-discrimination is the second principle proposed by Ruwen Ogien (2007). Chinese practitioners cite this condition first, because of the wording of their charter of medical ethics, that of Sun Simiao (581-682). This sets out a principle of universal access to care. He made the first description of a progression of dementia. The care is individualized: in internal medicine treatise called "Yellow Emperor", dementia opens a medical decision, and differentiates general precepts and routine requirements of other pathologies. In contemporary charters "anyone sick should benefit from advances in research" (Alzheimer Charter, 2011).

3. Neutrality is respect for the life choices of others. This neutrality is the third of the principles laid down by Ruwen Ogien (2007). This neutrality is detailed in contemporary ethical charters (e.g., the first five points -on ten - the 2011 Alzheimer Charter relate neutrality "recognize the right of the patient to be, feel, desire, refuse, respect choice of the patient, respect the sick, protect its property and equipment choices; respect the emotional ties of the patient, respect the citizenship of the sick person ").

Compared to these three conditions in practice different forms of paternalism (a breach of neutrality) is indicated as an explanation of low levels of care for patients worldwide (three dementias in four unsupported according to the World Health Organization). Community ethics as Confucian well satisfy the first two conditions, but are much less satisfactory for the third condition. There is a need to weigh, measure distributed Care: it indicated e.g. Alzheimer Charter of 2011 - but that weighting was already stated in the earliest known text of Medicine. The lack of concern is a risk; caregiver burnout carried away by their solicitude also: declination of temperance care is necessary for the ethical health personnel.

It is probably possible to reconcile the ethics of the Community Care with ethical tradition, in relation for example with the first formulations of Confucius. Two pitfalls are indicated by Rowen Ogien (2011) in the development of ethics of Care, one of paternalism (due to the absence of explicit statement of neutrality), and that of inequality (due to the absence guidance on the weights of Care).
The formulation of professional ethics in the health care came with the improvements of educational training methods. The first explicit bioethics textbooks in China’s Tang Dynasty appear when the system of written examinations is taking place. These treaties explain that students must be diligent in their studies to avoid misdiagnosis. Previously, it was the only strict obedience to the guru that was required for physician’s apprentice, which led to a difficult transmission of quality in medical procedures and diagnoses. A path leads from Confucius (an ethic of respect for the authorities and compassion) to China’s ethics of Tang Dynasty, when Emperor recognizes that medical diagnosis was independent from official truth of divination methods.

Review of autonomy is made by the ethics of Care. It explores compassionate and community formulations of ethics (Tronto, 2012). These formulations have been developed since ancient times, before a caesura given by ethics of truth; the first was that of the cynical philosophers in the ancient Greco-Roman world.

Criticism of medical competence in an intellectual tradition that goes back to Rousseau. Alma Alta is in this current. This led to the establishment of humanitarian medicine. “Free access to all effective health care, that is to say, delivered by staff trained and provided with suitable means, is the only fair policy” (Brauman, 2009).

The training of general practitioners in France is that of a sweet directivity, a “have you ever thought about quitting smoking?” slipped on the tone of casual conversation. However, attitudes outside of these official standards “mothering” are observed in the controlled studies (Bloy, 2015). Balint had theorized an “apostolic” ethical noted that among GPs. They tend to idealize a receptive and cooperative patient. The feeling of general practitioners is not always having adequate arrangements to confidently manage the accompaniment of patients deemed "uneducable" (Bloy, 2015).

GPs, hospital staff often highlight their empathic ability. An ethic of truth is claimed by case managers. It is dedicated in their ethical codes. The regulation requires the patient information. For example, in China, the general practitioner is required to give all the information to the patient or a family member. However, family and medical paternalism combine to contribute to the low catch rates in charge of dementia.

The paternalism of family rule Chen Yugi (-215, -150) dates back to ancient China: the medical diagnosis is told a family member, but not directly to the patient. The family remains the one that represents an authority that will take charge of the person with dementia. Autonomy is only for the whole family in the Confucian tradition.

Medical paternalism is defined by the retention of a diagnosis by the medical professional. This happens a lot for dementia: there was still 95 % retention for Alzheimer's disease in England in
For cancers, the attitude of GPs in Europe has grown from a silence to an ethical attitude.
In Chinese surveys, GPs have conscious professionals of equal treatment of patients.
For regions where the Buddhist influence is important, the attitude of compassion is even more emphasized.
The burnout particularly affects those professionals (Tsai, 2014).
In summary, ethical professionals involved in the care of dementia combine the recommendations
of the two ethics of Care and Risk. Neither empathy, nor risk management can claim to be only
sufficient to define the professional ethics (Corvol, 2013). A dividing line exists, but rather between
paternalism and an ethic of truth. It takes a dimension that is reflected in the catch rates in charge of
dementia, for example.

Integrated Health system: EKSOTE et KEKSI in Finland

The Finnish scheme adopted in 2010 (Finland is one of the integrated health promoters in WHO), complete an initial
pattern of hospitals by a wide mesh network - the computer system KEKSI - and a small mesh, for example EKSOTE
(South Karelia district of social and health services) in the district of the hospital Lappeenranta (72 000 inhabitants, two
universities of 12 000 students).

Integrated Health system in South Karelia (Finland)

Decentralization and equity: example of Dementia in the world

Decentralization is necessary:

- Optimal policy is context dependent,
- Paralysis of WHO (very centralized) in front of Ebola epidemic,
- Low level of % diagnosis of dementia in centralized country like Hungary or China, for example.

The rate of diagnosis of dementia varies worldwide between 3 % for Hungary and 55 % in Sweden.
It is 7 % for China (Chen et al., 2013). Access to care, family relationships and attitude of general practitioners play a shared role in determining the rate of diagnosed patients. The key to distribution of these factors differs between regions. The role of family backgrounds is negative in two configurations: one isolated person and that of a community family environment (family paternalism). The density of general practitioners is often managed by the health authorities, so that at the same rate of general practitioners per 100 000 is a wide dispersion of rates of diagnosis. The care rate of dementia is equivalent to mental health (Chen et al., 2013). For example, the cohort
The study conducted in Auvergne on the stigma attached to the outcome of dementia neurodegenerative diseases highlights health practitioners, rather than families. Professional ethics combined with intra-family decision system is put forward in the case of China (Fan & Li, 2004; Fan, 2011).

The good organization of areas of mental health and social work is a precursor to the good organization of supported dementia. Coordination between the various areas (health, mental, social health) remains a major problem affecting the deployment of supported dementia. Sweden is cited positive example for the organizational structure combining different levels of the health system (Rosow et al., 2011). But complex in practice, for example, « good practice » for dementia in Sweden:

![Dementia in Sweden](image)

**Upstream and Downstream Integrated Care**

A limit on decentralization is the existence of risks that can be managed only on a fairly large scale, such as disasters or air pollution. A review of the literature indicates that the programs of building resilience to disasters exist. He's wanted to build resilience before the onset of the disaster, that is to say, it is an integrated "upstream" Care. The shortcomings are rather for risks that prevention policies should be broken down to smaller scale.

<table>
<thead>
<tr>
<th>Risk</th>
<th>« natural » district</th>
<th>« Upstream » integrated care</th>
<th>Global Median</th>
<th>Example: France</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disaster</td>
<td>Large region</td>
<td>2</td>
<td>0</td>
<td>1,5</td>
</tr>
<tr>
<td>Air pollution</td>
<td>Large region</td>
<td>2</td>
<td>0</td>
<td>1,5</td>
</tr>
<tr>
<td>Legionnaires disease</td>
<td>Commune</td>
<td>1,5</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Monoxyd carbon</td>
<td>Commune</td>
<td>1,5</td>
<td>0</td>
<td>1,5</td>
</tr>
<tr>
<td>Pesticides</td>
<td>Commune</td>
<td>1,5</td>
<td>0</td>
<td>1,5</td>
</tr>
</tbody>
</table>

![Five risks and decentralization](image)

The French law of January 2016 proposes experiment of local prevention team of the loss of autonomy for the elderly over 75 years. This is a positive example of integrated care "upstream", that is to say, integrated care that do not remain confined to the accompaniment of a hospital discharge (integrated care "downstream").

### 4. CONCLUSION: AFTER EBOLA

Integrated care is a common practice in medical NGOs, positive actors in the tragedy of Ebola in West Africa. Weak health systems in the three countries of the Ebola epidemic in 2014-2015, as well as the denial of the epidemic risk by the WHO have considerably weakened the credit of the
intergovernmental organization. The definition used by the WHO to define integrated care are not clear, always leaving a small door open to notoriously undersized health systems, implicated in the outbreak of Ebola hemorrhagic fever.

The G-20 will decide in 2017 on global health policy. It will then be assessed the extent of the paradigm shift caused by the Ebola crisis, particularly on the role of WHO, previously focused on the health regulation, and taken by surprise by the Ebola epidemic.

The WHO work program on integrated care is incomplete: there is no integration of indicators to follow health system. Different health inequality issues casually refer very specialized actions, which, for the most part remain fully defined.

REFERENCES
Organisation Mondiale de la Santé (1978), Déclaration d’Alma Alta sur les soins de santé primaire, 12 septembre.


