Association Nationale des Étudiants en Médecine de France
ANEMF c/o FAGE - 5 rue Frédérick Lemaître - 75020 Paris
Téléphone : 01 40 33 70 72 - Fax : 01 40 33 70 71
www.anemf.org - contact@anemf.org

Physican's geographic repartition

An international experience

Association à but non lucratif selon la loi de 1901, créée en 1965.
Organisation de représentation selon l'article 811-3 du code de l'éducation.
Représentée au CNESER et au CNOUS. Nommée à la CPNES et à la CNIPI.
Membre de la FAGE et de l'IFMSA.

Summary

Introduction

The regulation of physician's geographic repartition is a main stake for health policy. Freedom of establishment has been questioned several times, and the hypothesis of coercive measures such as bills and amendements to the social security financing bill has been evoqued several times in the last months by public authorities.

As the French National Association of Medicine Students (ANEMF) looks for different iniciatives, we decided to launch an international survey of physician's geographic distribution in foreign countries, and of the different measures taken by those countries to prevent health workforce from downsizing.

The aim of this study is to constitute a data base allowing to develop incentives, telemedicine, collaboration between health workers and new intermediate professions.

This survey has been build in three month, using different sources : two questionnaires, one distributed by the International Federation of Medicine Students Association (IFMSA) and another directed to the French medical students who have completed an internship abroad. Finally, several official reports and articles enabled us to end our searches. They are all referenced at the bibliographic chapter of this study.

Medical desert, an international concern

Among the forty-six interviewed countries, only tree declared not having medical doctor's repartition problems: Montenegro, Catalonia and Sweden.

Among the others:

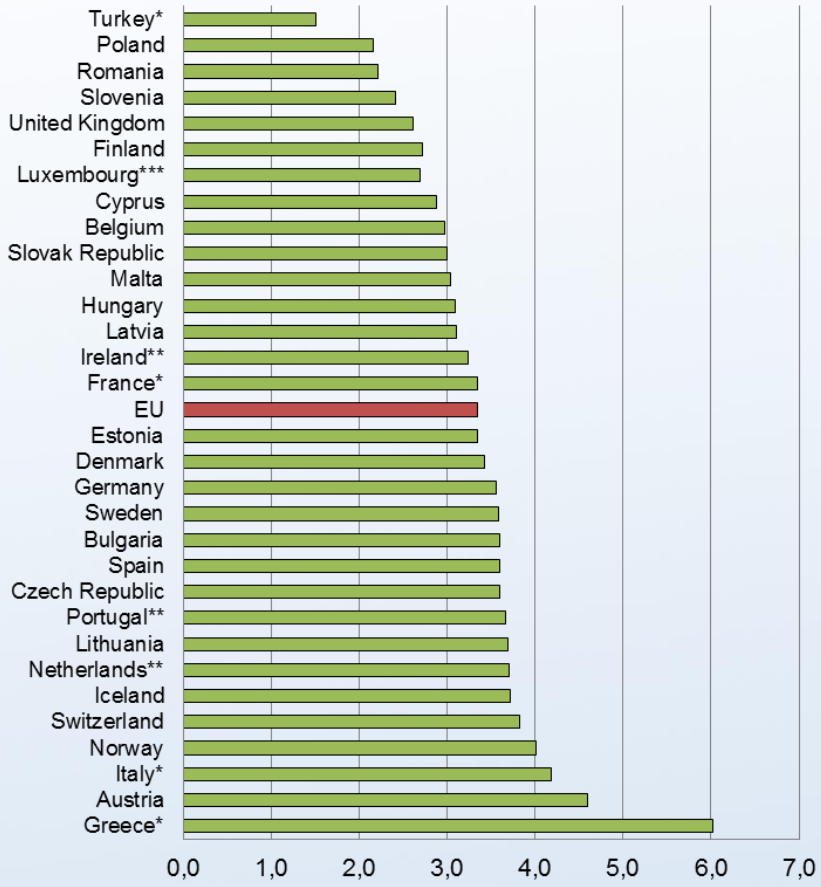
Twenty-one countries consider they don't have enough physicians practicing in underpopulated areas (Austria, Belarus, Brazil, Canada, Costa Rica, Croatia, Czech Republic, Denmark, Egypt, Georgia, Greece, Iran, Lithuania, Luxembourg, Morocco, Nepal, New Zealand, Philippines, Portugal, Sudan, Netherlands);

Five countries consider they don't have enough physicians in overpopulated areas (Bangladesh, Israel, Lebanon, Peru, Saudi Arabia);

Thirteen countries consider they don't have enough physicians practicing in over and under populated areas (Bulgaria, Chile, Colombia, Estonia, Indonesia, Jordan, Nigeria, Slovenia, Zambia, Turkey, Mexico, India, Dominican Republic).

This diagram confirms that the lack of practitioners problem is not exclusively French

Practising physicians per 1000 population for 2008



Sources: OECD Health Data 2010; Eurostat Statistics Database, Ministère de la Santé

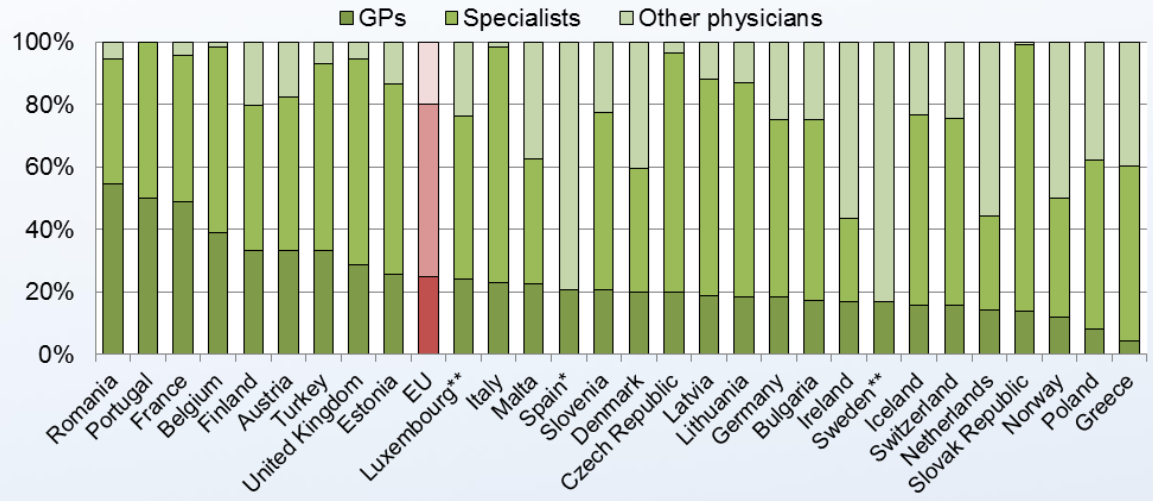
Graphique: Sébastien Rinaldetti - ALEM

*Data include not only physicians providing direct care to patients, but also those working in the health sector as managers, educators, researchers, etc. (adding another 5-10% of doctors).
**Data refer to all physicians who are licensed to practise.
***Data for 2009

In St. Kitts, the **lack of specialists** is highlighted. Conversely, we note the presence of **unemployment in overpopulated areas** in Ecuador and Barhain. Paradoxically, in Egypt, Georgia, the Philippines, Portugal, the Netherlands and Germany, **unemployment in overpopulated areas is associated with medical desertification in underpopulated areas**.

This diagram provides information on the proportion of positions between general medicine and other specialties in the various European countries.

General practitioners, specialists and other physicians as a share of total physicians for 2008 or nearest available



Sources: OECD Health Data 2010; Eurostat Statistics Database, Ministère de la Santé

Graphique: Sébastien Rinaldetti - ALEM

*Data are not available for specialists
** Other physicians: dentists, occupational physicians / Data for 2009

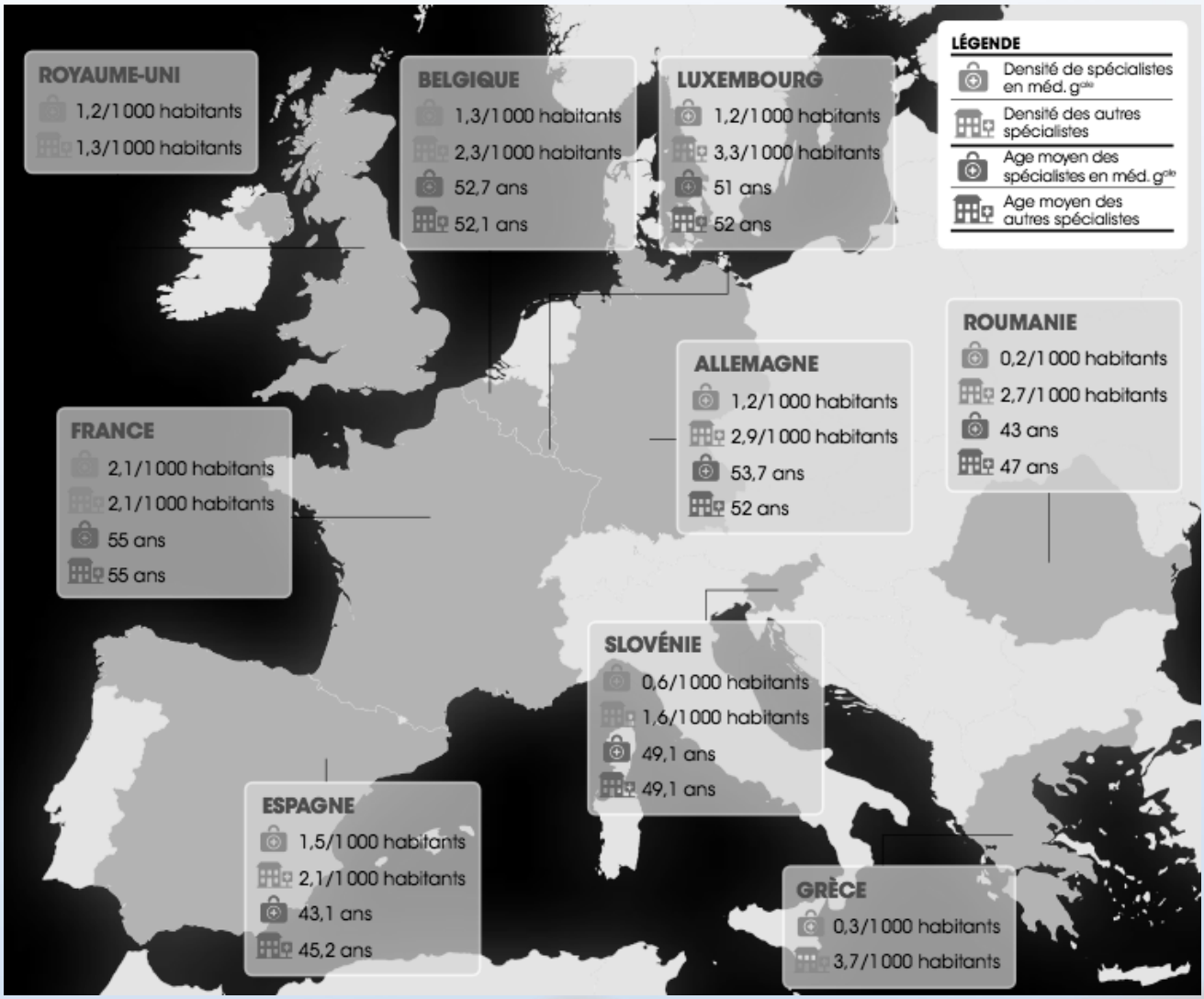
Eight countries reported that **the repartition of physicians is the only problem in their territorial organization of care** (Austria, Barhain, Denmark, Estonia, Luxembourg, Saudi Arabia, Slovenia, the Netherlands) while in Germany, **the isolation of physicians is associated with a lack of access to everyday services** (bakery, schools, post office, supermarket). Note that Germany has the same problems as France in health territorial management: an aging population and physicians, a lack of appeal to a liberal form of practice and doctors that are looking for a better lifestyle.

In Bulgaria, Canada and the Dominican Republic **the isolation of physicians is associated with a lack of other local health professionals** as nurses and pharmacists. In addition, **in thirty-two countries the shortage of physicians is associated with a lack of technical facilities** such as laboratories, radiology centers, etc.. (Brazil, Bulgaria, Colombia, Costa Rica, Czech Republic, Germany, Greece, Iran, Lebanon, Lithuania, Morocco, New Zealand, Peru, Philippines, Portugal, Turkey, Zambia, Bangladesh, Georgia, Jordan, Belarus, Chile, Croatia, Dominican Republic, Egypt, Israel, Mexico, Sudan, Ecuador, India, Indonesia and Nepal).

It is also interesting to focus on distinct physician's territorial repartition patterns that have been noticed worldwide :

Medical Demography's European Observatory's (MDEO) report shows that France has the highest GP's density, compared to a low Specialists density. For instance, Greece and Romania have a higher Specialists density. Although we have to underline the fact that the role of the physicians and of the health professionals in general is not the same in all countries.

Using the information collected by the MDEO, a figure has been realized and published in the "information leaflet of the French Physician's Order" n°21, feb. 2012



Countries face differently the Medical Desert issue. As an example, in Germany, to prevent the ineluctable future lack of physicians, (due to aging of the population), the Government invited the Länder to increase the "Numerus Clausus", to enlarge the selection criteria of the students, to focus less on the grades from highschool's final exam and to consider motivation or social skills as well. Those new parameters are also part of a resolutions proposal for rural physicians, voted in early December by the Parliament. Moreover, Länders will adopt measures giving priority at university admission for candidates that volunteer to spend their first years of practice in rural zones.

Also, on December 20th of 2012, a governmental decree increased the number of hospitals where medical students can do their clinical clerkship. Rural hospitals are now available to host students and in order to improve compatibility between personal life and education it will be possible to do part-time clerkships.

Canada and Germany have experimented **measures of non-conventionment** in high-density zones. As a result, physicians stopped installing in those zones.

Portugal has a sufficient number of physicians, but their repartition of specialties over the territory is very irregular. Nowadays with the crisis, **healthcare is centralized in urban zone** and inaccessible for some inhabitants.

In Brazil, they are discussing the necessity of a public local legislation and a restructuration policy, to regulate physicians' demographical repartition between private and public sector. **There are currently two times more private structures and physicians than public**, even though the vast majority of the patients goes to public structures.

In Netherlands there is **total freedom of installation** ; all restrictive measures were cancelled in 1992.

Incentives measures

Faced with medical deserts, the following governments chose to developp incentives measures, in order to make practice in under medicalised areas more attractive to physicians :

Practice fincancial valuation

In **Denmark** physicians salary is higher when they practice in under medicalised areas.

In **Portugal, expenses due to physicians transportation are refunded.**

In **Austria**, encouragement is only done by **financial support**. There has been no reaction from health care professional or population. This support is promoted during post graduate training.

In **Lituania**, government offers physicians to pay their rent if they establish in a deserted area. Professionals greet the initiative but physicians prefer to emigrate and work abroad. This measures is promoted during and after the residency.

In **Egypt**, physicians and other health care professionals practicing in under medicalised area get a **higher salary**. Public opinion disagrees with this measure, which is promoted during traning.

In **Zambia**, physicians established in rural area get a **specific grant**. The population approves this measure but the professionals are not satisfied. This grant is promoted during medical studies and training.

In **Sudan**, physicans **salary** when they practice in unendowed areas is **rised**. However, to access health cares the population still have to displace a lot. This measure didn't provoque any reaction from health care professionals.

In **Iran**, a financial support with **higher salary** is proposed, specially for specialists physcians if they practice in a remote zone. Population and health care professionnals agree with this proposal which is promoted during medical studies, training and post training ;

In **Nepal**, **salary is doubled** for practitioners in under populated zones. Professionals approuved it whereas the population wasn't fully satisfied. Communication about this support is done during medical studies ;

In **Saudi Arabia**, physicians' **salaries** was **raised** to encourage them. The population has complained to the government about the permanent lack of physicians. Government also proposes an **help to the establishment**. Thoses proposals are communicated during the training ;

In **New Zealand**, young doctors get a **financial compensation in exchange of 5 years exercising in a medical desert** after they get their diploma. Medical doctors agree with this measure. This only applies to physicians attached to the health system (which represent almost all doctors).

Value the territory

In the **Netherlands** a huge **publicity campaign** was led with the help of television and internet in order to highlight deserted regions to attract young people from every job categories.

Equipments developpment

In **Georgia**, population from rural areas encounter great difficulty to access health care because of geographic distance and cost. There are not enough equipments and they're badly kept, dilapidated. A **technical support** is provided with new labs for hospitals but there's still not enough to be efficient, and population and professionals ask for more.
The new health ministry wants to build **new hospitals** in rural zones to allow more physicians posts opening in order to attract them. Almost all doctors agree with its initiative but medical students are scepticals. Moreover, 50% of population doesn't have a health insurance and can't access the health care système. Finally, doctors practicing in under medicalised zones have **higher salaries**. Another problems appears : students interest in medical education decreases.

In **United Kingdom**, since April first, 2005, a **primary health care development plan** has been led to facilitate the general practice on medical desert and doctor practicing rare specialities recruitment.

Egyptian government also tried to **send more equipments to hospitals**, which is efficient but not enough : the doctors complain and sometimes refuse to work, the public opinion is mixed in between blaming doctor and blaming government and they sometimes take it out on hospitals.

In **Ecuador**, a **financial support is brought to improve technical fittings** in some remoted places. However it's not enough according to questionned students, professional and population aren't satisfied. Communication takes place during medical studies, internship and post internship ;

In **Barhain**, they plan to build **new hospitals** to open new jobs opportunities. Doctors are frustrated because it sometimes takes more than a year to get a trainee post. Medical students are worried, the lack of job push them to find a place abroad. Population didn't really react.

Financial support during studies

In **Portugal**, a **financial support can be brought but interns have to work in a medical desert the same number of years of training**. If they decide to leave those zones, they have to pay back the government. There is also a great demand of specialists. **New posts** are opened in the places they're the most needed. Those measures are promoted using the internet and during medical studies. This help have been approved by health care professionals and population ;

In **Croatia**, a **contract** exists, which allows student to get a **grant from the government during his medical studies. In exchange of its grant, he must practice 2 or 3 years in a rural area.** If he doesn't respect his part of the contract, he has to all pay back to the government.

In **Phillippines** a program has been rise : « Doctors to the Barrios » : it's a **grant system in exchange of practicing in slums or local communities in remotes areas. They also have one year of compulsory duty dedicated to the community in public medical faculties.** Doctors, students (forced to) and population approve those measures which are communicated during medical studies ;

In Indonesia, government put a scholarship and made easier the access to internship. In exchange of what, for two years paid by the government, the student will have to practice one year in a medical desert. The communication about its system is too poor, by internet without regular update ;

In **Chili**, a program has been created to encourage young doctors to **get their internship paid by the government. In return for this financial support, the doctors work for the government in a public sector**, to fill in the lack of specialist. This measure has been approved by the medical profession. It didn't get to a specific reaction from the population. This measure is promoted during medical studies and internship ;

In **Canada, studies are financed** by the governemt and there is a **financial bonus** to compensate practicing in a rural zone. Health care professionals and public opinion desagree with this measure promoted during and after the training. **For foreign doctors : a major financial support is brought in exchange of practicing in a medical desert for five to ten years**.

Easier access to medical education

In **USA**, Pennsylvania, a PSAP program selected students from rural areas and claming they want to work in those zones. **Their curriculum has been adapted**. Select students were, according from an NEJM 1993 article five times as numerous as practice primary care and three times as numerous as practice in a rural area.

Punctual support to settlement

In **United Kingdom**, at the end of 2007, government announced he would offer **more money** for medical desert regions **to open one hundred of NHS (National Health Office) medical offices** during the three next years ;

In **Belgium**, once doctors are attached to the national health system, they are totally free to establish themself wherever they want. By the way, so are privates doctors. **Doctors who establish in underprivileged places or medical desert get a 20 000€ subsidy**. This subsidy is allowed as well to the new doctors as the ones who decide to change the place they practice ;

In **Israel**, a **financial support** in the form of a subsidy is brought to encourage young doctors to establish in the south of the country. This measure is considered as insufficient by questionned students. The communication about this help is done during and after the internship period. Docctors, medical students and population are dissatisfied of this measure ;

In **Sudan**, there is a **human assistance to establish** (for administrative procedures, etc) which add to the increase of the physician' salary when he works in a medical desert ;

In **Turkey**, incentive take the form of a **financial bonus**, and if doctors start their exercise in a rural area, they get **more opportunities to work in an urban zone** once their compulsory period is over. Helth care professional have been satisfied from this measure.

Coercives measures

Some governments also tried to use coercives measures to fill in the medical deserts, forcing doctors to practice their :

Obligation to practice in medical desert for a limited time

In **Denmark**, it's compulsory for post graduated doctor to stay for one year. There's also **a law proposal which restrain the number of family doctors' jobs in clinic**. This way, more physicians would be forced to open their own clinic in undermedicalised areas and out of big towns. Professionals are very angry with this law, so are medical students. Public opinion didn't react particularly. Those measures only concern attached to the public health system doctors ;

Brasilian government wants to **force doctors to practice in medical desert,** but this law proposal hasn't been approved yet. Professionals union are against this proposal. So does the national association of brasilians medical students in this shape. This proposal would concern medical students graduated from public universities.

In **Ecuador**, there is a program that has been used for a while, called « the rural ». It concerns ecuadorians graduated from med school. **To work in their country there are two options : stay one year after getting diploma in a rural health center from a randomly selected rural place across our country or do their speciality in Ecuador or any other country and work for one year in a public hospital from the big cities after tha**t. Doctors, students and population approve those measures. They don't only concerned attached to the public health system doctors ;

In **Indonesia**, doctors are **forced to serve one year after getting their diploma or before residency to get permit for doing private practice.** They practice in area set by the government and are paid only 1,250,000 Rp (USD 130/month or € 100/month). They named it internship. But the regulation still could changed in some year ahead. It could be removed regarding lack of budget or extended two years but paid by local government not the national government. Opinions are mixed between doctors, students and population. This measure concern every doctors (not only public practice).

In **India**, **they are making a compulsory internship for an additional one year other than the existing one year in the rural areas**. This measure got the professionals' desapproval. Population is still in need of doctors, whether they are resident, young doctors or seniors ;

In **Tunisia, each resident has to fill a six months compulsory internship in the South, medical desert.**

In **Greece**, **Medical School Graduates have the option to practice rural medicine (ie be the 'GP' in a remote island or mountain village) for one year before their residency**. Their salary is pretty much the same as a resident's salary. This used to be obligatory for all medical school graduates in order to get a residency place, however the last five years it is optional, and **obligatory only for those who wish to be employed to state hospitals after their residency**. Most of the graduates who don't get immediately a residency place are applying for the rural medicine job. Population takes it as granted, as it has been going on for many decades.

Use residency to put under pressure

In **Brasil**, the government created a bonus point system in the residency selection test for doctors who work up to two years in uncovered zones of our health system. **So, a doctor who work those two years after graduation have his results in any residency selection multiplied by 1.1 before being compared to the other physicians trying that same test.** Doctors and medical students are dissatisfied whereas population approves it ;

In **Iran students have the obligation to work in remote areas after becoming a GP for at least 2 years. After that they can become resident and getting a specialist title ;**

In **Turkey**, **students have the obligation for a government work, right after graduation, if no specialization training is taken**. Indeed, access to specialization training is by a written exam they can pass many times they want (however they can't do it more than two times a year). If they fail the exam and until they success, young doctors have to practice for government as general practitionner. This measure is approved by doctors but no students. It convinced population. It only concerns attached to the public health system doctors ;

In **Nigeria**, in addition to the residency programme, **doctors are made to do a compulsory one year national service in hospitals across the country, especially those in rural areas and in regions where there very few people interested in education.** this has helped in addressing the problem of shortage of manpower. **They also started the midwives' service scheme, which aims at remploying retired midwives to help serve the underserved**. Those measures concern every doctors ;

In **Egypt, students with the lower results to their exams have the obligation to practice in rural area for some times.**

Forbidd medical office sale

In **Georgia**, **doctors don't have the right to sell their office anymore if they practice in overpopulated area**. In **Austria** they can do it but **whithout any financial benefit** ;

In **Indonesia**, **they are not allowed to sell their office if they practice in overpopulated area.**

Restrain attached to public health care system doctors' settlement

In **United Kingdom**, doctors working for NHS (National Health Service), meaning almost all physicians, have to sign a contract with NHS to practice, which depends, among others, on the territory access to health care estimation. This distribution is set in the human ressources planning. In the 2007 march 22th report from the parlementary investigation committee on health, this planning have been said as a « disastrous fail ». Freedom to practice wherever doctor wants is only full for private practice (a few of the whole profession) ;

In **Austria, attached to the health system doctors establishment is strictly framed**. Indeed, the necessarily number and distribution of those doctors knowing local parameters (demography, geography, communication ways, etc) are set by the health insurance companies and professionals unions. Usually, patient has the choice between at least two attached to the public health system physicians who practice at the same distance from each others. Planning depends, from one hand on the future needs, calculated considering demographic and epidemiologic developpment perspectives, and from the other hand on medical districts composing the land's medical density calculation. This density is calculated using « medical full time jobs-like » numbers per 1000 citizens, considering how easy it is for patients to go to the doctor, than it's compare to the federal average density. Non attached to the health public system doctor (who are doing private practice) are free to work wherever they want. Their number doubled the last ten years and is lightly higher than the attached to the health public system doctors.

In **Switzerland**, there isn't incentive measure. Doctors doing private practice can establish themself wherever they want. **There is a order which sets, for each canton and each specialty, the maximum number of attached to the public health system doctors**.

Use of theoretical exam

In **Ecuador**, the reason of the unemployment is because there are too many health professionals (they are centralised in big cities) and to control that, the government is working in a licensing exam so every doctor that want to work here, must approve that test, however there is a concern in who must create the exam, so it is in discussion now. They don't have much distribution of health services problems but they have a lack of quality in it ;

About efficiency of this measures, Senate's report « compared legislation study about medical demography » published in may 2008 says that none of these plans to improve geographic distribution solved all the problems.
More over, 2006 IRDES report note that *: « How to improve health professionnals geographic distribution ? Learning from international literature and measures set in France »* : administrative coercition to settle policies, consisting in restrain the number of new doctors who could settle in area considered as overpopulated, as they are lead in United Kingdom, Germany or Austria (Taylor 1998 ; Sibbald 2005 ; Kopetsch, 2003)**, didn't permit to end the geographic distribution unequalities**. They possibly lead to restrain the number of doctors trained, who anticipate the impossibility to settle wherever they want, but didn't improve the remoted areas' attraction.

Whatever the repor, restrictions to settle didn't prove their efficiency, first because they're easy to get round and then because they brought to a lack of interest for medical studies, as in Germany where the number of students asking for admission in medical studies has been divided by five the in ten years.

Focus

Germany and Quebec are countries where coercition as incitation have been developped a lot. That's why we chose to talk about their experiences with more details.

Québec

About **incentives** : government defined « remoted zones » (far from the city center) and « isolated zones » (only a few communication lines). **General practitionners** who practice there have a **higher salary.** The increase rate depends of the zone the GP belongs to, between 40 and 105%. Some doctors can also benefit from a **settlement subsidy (from 10 000 to 25 000$) and a holding in subsidy** if they commit to do a full time practice for a year. Doctors practicing in isolated areas also have extra benefits : a **« remoteness yearly bonus** ». Its amount depends on the place of practice, the number of patients and the family status. They also are **paid back from some expenses** as transportation, food or three to four flight tickets. Same measures but with more important amounts are proposed to specialist physicians. More over, during the registration to the faculty of medicine, **some posts are booked for students coming from isolated or remoted regions. They get some extra points in the selection**.
Scholarships exist, giving 15 000 or 20 000$ in exchange of the committment to practice medicine in a area decided by the ministry for the same number of years the student got the money (four is the maximum). They are proposed to students in the last two years of study ;

About **coercives** measures : **a compulsory externship in a medical desert has been set**, for at least two months. On the other hand, before settling, attached to the public health system GP have to get a **conformity notice** from the regional planning of medical staff (PREM) from one of the eighteen sanitary-social regions in which they want to practice. There is publicity and a selection process if there are several candidates for one job. PREM are reviewed every three years and created by health agencies, set by the government in each region. **Attached GP practicing without conformity notice in a region get their salary reduce from 30% for each activity trimester in those conditions**. However, attached specialists practicing only in offices don't need conformity notice, only the ones who work in hospitals are counted by PREM.

Germany

About **incentives** measures, there is **more money and help to settle**. This only concerns attached to the health system doctors (means almost all). This measure got the profession and stutends approval whereas population push on the government to set stricter measures which would force students to have externship in medical desert. German medical students got the retray of a politic initiative that would force them to have a four monthes externship with a GP. However **they have one compulsory month.**

A new incentive law passed, which **offers to practitonners settled in a rural area a subsidy for each patient, without any number limitation or package ;**

Talking about **coercition**, if nothing restrain the settlement for private practice, since 90's, **access to attached to the health system doctors isn't free anymore.** In each Land, a **equal committee** composed by doctors chosen by attached to the health system doctors association and social insurance agency representatives, **allow to attached physicians a permit for practicing depending on the federal committee orders.**

The federal committee orders define medical specialties – including general medicine – subject to settlement restrictions. For each of these specialties, the orders set as much medicalization indicators as medical district categories. Medicalization indicators are expressed with number of citizens per doctor. Orders concern fourteen physicians groups : anesthesiologist, ophtalmologist, surgeons, internal medicine specialist, gynecologyst, otorhinolagyngologist, dermatologist, pediatrics, neurologist, orthopedics, psychiatrist, radiologist, urologist and family doctors.

The family doctors group includes : family doctors, GP and internal medicine specialists who don't have a sub specialty. For others specialties, counting less than one thousands professionnals over the federal republic territory, there isn't restriction to settlement. **In a given district, settlement is possible as long as the number of specialis don't get over the quota more than 110%.**

The Land committee regularly publish a board saying, for each of the fourteen physicians groupe and for each of the medical district depending on it, availables settlement. In 2008**, in most of district – including the news Landers -, no specialist settlement is possible. However, it's possible to open a GP office in 66% of the district.** Most exceptions are about buying old offices and taking in accound special needs.

Numerus Clausus

Some countries decided, still to fill in medical desert, **to increase the numerus clausus** (number of students allowed in the medical studies).

However, this increase highlight the question : **are the faculties able to well host and teach every medical student ? How to adapt the faculties accomodation capacities to the numerus clausus ?**

In Spain and more precisely in Catalonia, more universities has been opened, but there is no other adjustment.

In Portugal, the number of teachers didn't change despite of the increase of the number of students. Hospitals try to adapt themself by sending students in rural hospitals to keep a good ration students/teachers.

The faculties accomodation and teaching capacities lightly increased in Germany.

In United Kingdom, to face the lack of doctor, the last MWSAC report, an expert committee in charge of advising the minister of Health about the numerus clausus, dated the 1997, advocate that the number of medical students should increase in United Kingdom by 1000 per year and the NHS plan published in 2000 planned an increase of 1000 extra medical student « posts ».

In Belgium, the number of attached to the health system doctors is set by a numerus clausus. This year however, government announced he wanted to remove the numerus clausus for specialty as general practitioner.

In Austria, the access to medical studies is limited since 2005-2006. It was set in 2008-2009 at 1350 with a minimum rate of 75% nationals austrians.

Developp interprofessional collaboration

One of the different ways to improve access to health care is the interprofessional collaboration.

An example of interprofessional collaboration is the **task repartition between midwifes, gynecologists and general practitionners during the pregnancy and delivery** : this repartition doesn't exist in Bangladesh, Croatia, Cezch Republic, Greece, Jordan, Liban.

In Austria, Barhain, Belarus, Brasil, Bulgaria, Canada, Catalonia, Chile, Colombia, Costa Rica, Denmark, Dominican Republic, Ecuador, Egypt, Estonia, Georgia, India, Indonesia, Iran, Israel, Lituania, Luxembourg, Mexico, Montenegro, Maroc, Nepal, New Zealand, Nigeria, Phillippines, Portugal, Saudi Arabia, Slovenia, St Kitts, Sudan, Sweden, Netherlands, Turkey, Zambia, this collaboration is more or less developped :

In Europe

In Belarus, gynecologist takes care of prevention and pregnancy treatment, the midwife is in charge of delivery, and the general practitionner takes care of the post delivery.

In Bulgaria and Austria, the first health care professional to meet, than he turns pregnant women to gynecologist who treat them during pregnancy. Than gynecologist and midwifes are both in charge of delivery.

In Denmark, The pregnant woman consults her general practitioner, when pregnancy is stated and he follows and examines her. In 10th week there is a consultation with a midwife, where a pregnancy plan/chart is made and the midwife makes a plan of future visits. A gynecologist (or a nurse in a gynecologic ward) makes an ultrasound at 12th and 19th week of pregnancy. There is then a midwife consultation every other month or more often. After the birth and when the woman is home with the baby, she is followed up by general practitioner several times and he removes the stitches if she has some and checks her.

En Estonie, les sages-femmes et les gynécologues ne travaillent pas ensemble en général, mais ils gèrent tous deux le suivi de la grossesse.

In Portugal, it depends on the region. Every person is supposed to have a family doctor who is a General Practitionner, and you can have appointments. If there is a special situation - like pregnancy - your GP gets you an appointment with an ObGyn, then you are followed by both/just the ObGyn/neither, as you wish ou as you arrange with your GP.

In Sweden, there is a connection between hospital (delivery) and primary health care through referral system.

In the Netherlands, When a woman gets pregnant she will go to her GP for confirmation or she will go straight to a midwife. Anyway, GP will sent her to a midwife. When a problem occurs during pregnancy the woman will go to a gynaecologist.

In America

Brazil has a really good primary health care, in which there are programs about pregnacy, woman health, etc. Midwifes are comum just in poor areas and rural areas because there arent a plenty of medical professionais.

In Chile, they have a mix system, a public and a private one. In the public one, there are Familiar centers of Health called CESFAM (Centros de Salud Familiar) where Doctors, nurses, kines, etc, work together and if a gynecologist is required that CESFAM is related to some hospital where the general doctor can deliver the patient.

In Colombia, physicians and nurses do prenatal care, sometimes gynecologists too if needed, physicians or Gynecologist or midwifes take care of labour and birth, and physicians, nurses and midwifes enroll with puerperio. All these depend on the context where the patients are located.

In Ecuador, collaboration between physicians and midwifes isn't that obvious and when there is one, it's Just in some cases and all practices are controlled by a gynecologist or related health professional.

In Africa

In Egypt, there is a lot of development occurred over the past 5 years in the gynecological field.

In Morocco, the pregnant starts with the generalist if any problem appears, sent to gynecologist. By the end her last weeks must see the gynecologist.

In Nigeria, the gynaecologist first sees the patient, examines and categorises the patient on the bases of case. Thereafter, both parties are involved in the management of the patients

In Zambia, The midwife attends to pregnant women at the lowest level of health care, that is, local clinics in residential areas or district hospitals (small town level); and performs delivery in non - complicated pregnancies. If there is a problem; a general practitioner at a district hospital attends to the client. For even more complicated cases; a client is referred to an obstetrician-gynaecologist at a central or general hospital (city level).

In Asia

In Iran, the GP teaches people about prevention and issues related to pregnancy and maternal health, the midwife assistes gynecologist in follow ups and delivery and the gynecologist takes care of surgeries, deliveries, pregnancy follow ups and etc.

In Turkey, midwifes make the baby born in rural, with or without the help of physician, as a General Practitioner you are obliged to control every newborns' first six month in your responsibility area. In big cities, the follow up and delivery are he gynaecologist's job ;

In Oceania

In New Zealand, Midwives and GPs work together in pre- and antenatal care, gynecologists only involved if there are complications during birth.

Thirty four countries (Austria, Barhain, Brasil, Canada, Chile, Colombia, Costa Rica, Egypt, Germany, Iran, Israel, Lebanon, Lituania, Luxembourg, Mexico, Marocco, New Zealand, Nigeria, Philippines, Portugal, Sudan, Sweden, Netherlands, Zambia, Bulgaria, Québec, Spain, Italy, Bolivia, Rwanda, Indonésia, Tunisia, Croatia, Taïwan) from forty six requested chose to promote a collaboration between healthcare professionals (psychologist, speech therapist, physiotherapist, orthoptist etc).

Fourteen countries (Peru, USA, Austria, Nigeria, Brasil, Germany, Spain, Tunisia, Uruguay, Japan, Chila, Croatia, Panama, Taïwan) from twenty seven requested, developped the multiprofessional practice.

The access to emergency and primary cares is a problem in every countries concerned by medical desert. In Greece, Iran, Croatia, Rwanda, Sweden, Peru, Uruguay, USA, Tunisia, Canada (Quebec), and Austria, the general practitionner or the family doctor are in charge of those. In Japan (where family medicine is rare), Lebanon, Taïwan and Bolivia, the hospital emergencies department is in charge of these cares.

Il some other countries like Germany, Chile, Spain and Indonesia, emergencies department, general practitionner or family doctor share the job. However, there is a difference between the use of those options.

In Ecuador, poor population prefer to go to the public hospital, whereas rich people chose to go to private doctors, or the ones practicing in town ;

In Peru, patients rather go to the hospital emergencies department because there isn't a lot of family foctors (except for remoted area where they do their civile service). In isolated zone we find a lot of non gratuated doctors (Shaman) ;

In Egypt, underprivileged population go first to public hospital ;

In Panama, patients first go to their family doctor then he can direct them to public hospital ;

In Taïwan, hospitals offer general practitionner/family medicine appointments. People prefer to go here than in a private office ;

In Brasil, patients don't need to consult a GP first, they can directly consult a specialist doctor. Healthcare centers are growing with a important growth of technical assistance depending on local demand and urbanization ;

In Nigeria, primary cares are held by stout women or trained to primary cares people, or students sent in community health care centers before specialty training ;

In Quebec, patients consult GP in priority for emergencies ;

In Chile, GP settle in community health care centers ;

In Mexico, primary health care are occured by GP and rural community health care centers.

Skills transfer

According to ANEMF France, one of the thought to developp is the skill transfer, and the creation of intermediate health care professions. About it, the january 2011 Report related to **health care intermediate professions** written by Yvon BERLAND, Laurent HENARD and Danielle CADET and given to the ministries of Work, Employment and Health, Higher Education and Research and to the State Secretary in charge of Health, report than organizations depending from the health care professionals cooperation were born in a lot of countries and someones in 1960's. The report talk about 8 examples of countries all over the world (includint USA, Canada, United Kingdom, Finland). It especally says that :

Nurses practitionners, in Ireland, got the **right to prescribe** in 2007 ; this right is given after a specific training. This politic is encouraged by medical associations, health stakeholders and the ability of the teaching system.

Chypria created for advanced practices of which three are about the chronical diseases management (diabetes, primary cares) and one is about mental health and more precisely addictology. Those nurses, which have a **additional education**, aren't allowed to prescribe.

In Quebec, medical desert are more or less filled in by facilities like **community health center** with nurses which have a more important job than in France and the ambulance drivers who have the training to diagnosis and prescribe in emergency situations : the movable unit for emergency and intensive care are only composed of 2 ambulance drivers.

USA are precursors concerning skills transfer. They integrated the practictionners nurses idea to developp new missions. Practitionners nurses are recognized to have the necessary level to practice, after passing exams, after knowledges and experiences evaluation and when they got the permission to practice.

Telemedicine

Another alternative used by some countries to fill in the lack of doctors is the **telemedicine**.

Peru belongs to the countries which tried it : in isolated places, specialists/emergency doctors from closest hospitals give advices to doctors/first aid worker practicing in those places.

An inverstigation lead by ASIP Santé and FIEEC studied several telemedicine uses in Europe and especially in United Kingdom, Netherlands, Belgium, Germany, Norway and Denmark. The conclusion, among other things, is **that there are really a lot of opportunities toward telemedicine, particularly when it comes to the population ageing.**

All these countries made strategic plan as regards telemedicine. For example, the Denmark ministry of health, regions and local autorities created during the last fifteen years roadbooks, with long term goals. All those countries have one of several piloting organizations.

These experiments proved their efficiency toward the **decrease of complications and the time the specialist take to answer to the patient**. More over, it's always a significant **financial gain** for the patient and the government, that could sometimes reduce the cost by half.

The investigation notably concludes that « a politic willpower is often essential to start far reaching experimentations » and highlight the essential health care professionals **awareness**.

Conclusion

The reason we made this inventory is to identify the different incentives and coercives measures existing, and to evaluate their quality with, among others, medical students testify. The results are mixed.

To conclude, ANEMF wants to highlight the fact that incentives measures are only focused on financial support, and the international experience proved that without anything else, those measures aren't efficients.

About coercives measures, all the officials results conclude to their long term inefficiency. Medical students' testifies show that most of these measures are unsufficient, and don't solve the health territorial management problem, whatever which country we are talking about.

Alternatives solutions like skills transfer and telemedicine still are poorly developped but when they are implanted, show a real opportunity to exploit.

Following this overview, ANEMF France ask for the developpment of the following working axis :

- **bonus for each patient** : the doctor get a subsidy for each patient he follows. This measure is only proposed in under medicalised area.

- a **global publicity campaign** about remoted regions, medical desert but also where there is a lack of other professions (human assistance, shops, etc), to improve the regions attraction. This can be a regional or national campaign.

- **technical support** developpment : **investment to install medical equipments** (scan, operating room etc), **but only where doctors need it.**

- developp the **human assistance** for settlement

- nurses becoming the first interlocutor : nurses are the first person patient meet when he comes to get cares in medical desert. They will have to sort out patients with priorities and demands, and they give primary cares. We join two restrictions : **no coerctition for nurses, and to anticipate when there won't be medical desert anymore**

- nurse practitionner : **give the right to prescribe to nurses**

- telemedicine : create a coordination national center, to centralize the telemedicine project management in France, however contractor still are free for intiatives. **It will be necessary to solve ethics problems related to each telemedicine project.**

Bibliography

http://www.senat.fr/lc/lc185/lc185.pdf

http://www.educpros.fr/detail-article/h/f3b72c47de/a/etudes-de-medecine-lallemagne-assouplit-les-conditions-dadmission.html

http://www.fmcdinan.org/article-28581952.html

http://www.hcsp.fr/docspdf/adsp/adsp-17/ad171215.pdf

http://droit-medical.com/actualites/evolution/953-loi-inciter-medecins-installer-campagne

http://sante-medecine.commentcamarche.net/contents/les-autres-pays/quels-pistes-pour-la-demographie-medicale

http://esante.gouv.fr/sites/default/files/Etude_europeenne_Telesante_FIEEC_ASIPSante_0.pdf

http://www.sante.gouv.fr/rapport-relatif-aux-metiers-en-sante-de-niveau-intermediaire-professionnels-d-aujourd-hui-et-nouveaux-metiers-des-pistes-pour-avancer.html

https://docs.google.com/a/anemf.org/spreadsheet/viewform?formkey=dF9DV1ZlVjhoWVg4cUJtRk9XdndFamc6MQ#gid=0 (Questionnaire ayant obtenu 42 réponses de 28 pays)

https://docs.google.com/a/anemf.org/spreadsheet/viewform?formkey=dFJxelJ2eC11SVpncFlyS243WEsxUFE6MQ#gid=0 (Questionnaire ayant obtenu 80 réponses de 46 pays)

Contacts

Marine Jourdan, VP International international@anemf.org 06 51 19 75 93
Benjamin Birène, VP Medical Demography demographie@anemf.org 06 74 83 85 16
Mathieu Levaillant, VP Communication communication@anemf.org 06 32 27 68 19