CHAPTER 9

LESSONS LEARNED

Here we intend to provide suggestions and advices derived by the different contents of the Handbook, in particular from the comparison of the different planning experiences.

With regard to the five key elements of a planning systems suggestions and indications may be summarized as follows.

Goals

Is it feasible to plan the health the workforce without setting any objectives to be achieved?

The seven experiences analyzed have shown that, basically, health workforce planning requires sharing principles, before than agree on specific objectives. Just the will to preserve certain principles and values, even in the face of complex challenges such as the economic crisis, makes the health workforce planning meaningful (for an example of HWF planning principles see the table below[44]).

1. ***Universal coverage**, i.e. the health care system will provide assistance to all citizens without excluding poor or rich. This implies that the need of professionals of the whole population of the Country has to be considered.*

2. ***Affordability**, i.e. the cost of the future health care system has to be kept within the limits of what is considered sustainable for the population.*

3. ***Effectiveness**, i.e. in considering the future need of professionals, is it important to bear in mind good production parameters.*

(44) See "*Minimum Planning Data Requirements for Health Workforce Planning*" Joint Action Health Workforce Planning and Forecasting D.051 – Release 1, pag. 7, available at http://www.euhwforce.eu/web_documents/RESULTS/140414_WP5_D051_Minimum_planning_data_requirements_final.pdf

4. ***Imbalances are not an option*** *(according to the affordability of the system, see point 2) as they are a threat to the coverage and quality, i.e. it is not acceptable to plan for a number of professionals which would be lower than a number which ensures a good quality.*

5. ***Education and not immigration to meet healthcare needs****, i.e. each country has to plan how to cover its own HWF needs; migration is a right for EU citizens but it should not be used systematically as a source to cover the population's need*[(45)].

The definition of HWF planning includes several dimensions that can be considered: quantity, geographical distribution, time distribution, skills, attitudes, commitment, appropriateness of activities, cost, productivity[(46)].

What are the basic dimensions to be taken into consideration? Definitely depends on the objectives that the system arises. In the health workforce planning there are **basically two dimensions** to consider:

1. *The targeted quantities for any health profession;*

2. *The year in which these set quantities are to be accomplished.*

The second dimension represent one of the great challenges: to educate and train a health professionals requires a minimum time frame (from 4 years for a nursing profession to 12 years for a fully trained clinical specialist) which obliges **to use forecasting methodologies and to calculate the margin of error of this forecast.**

How to turn those principles in operational objectives?

Most of the planning systems analyzed take into account the two basic dimensions mentioned above: the amount of professionals and the year in which this amount is achieved. Commonly the aim is to ensure in the future the current ratio of workforce and population, acting on the stock and flow of workforce in response to expected changes in the population. We can consider this as a starting point for those who aim to develop a planning system. But more advanced systems focus their planning on the reengineering of the workforce, in terms of horizontal and vertical substitution and skill

(45) See WHO Global code of practice on the international recruitment of health personnel (2010).

(46) See the definitions of health workforce planning quoted in Chapter 1

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mix, and on the reorganisation of health care delivery.

Whether the aim is to maintain the current situation or to change it, it would be useful to undertake an **assessment of the current situation** and to measure if there are any imbalances between supply and demand. Just **the outcome of this assessment should lead to the definition of specific objectives.** The challenge in this case is to agree on indicators that certify any imbalance. Only few planning systems measures the current situation. Most of them assume the current equilibrium between supply and demand, which it's a problem in the event that this assumption in not correct incurring the risk to perpetrate the imbalances in the future.

The consensus of stakeholders is necessary? Transparency and communication are one of the keys to successful planning systems: both principles, operational objectives, specific target or assumption are to be shared with stakeholders. The stakeholders involvement is thus to be considered as part of the setting goals process.

Minimum planning requirements

- *Define and agree with stakeholders on planning principles;*
- *Turn planning principles into operational objectives, even in case of maintaining the situation "as it is now";*
- *Set targets regarding, at least, the amounts of health professionals needed and the year in which these amounts are to be accomplished;*
- *Ensure to start the process with an assessment of the current situation on the basis of which to define future goals;*
- *Be transparent and communicate principles, assumptions and targets to the stakeholders.*

Other recommendations for a better planning process

- *Make a comprehensive analysis of the future health needs of the population and of the skills mix needed to deliver planned health services in the future in order to have added value information to set the goals;*
- *Identify and address unintended adverse policy interactions before setting the goals;*
- *Be sure that different Ministries (Education, Health, Finance, Labour) share and agree the objectives so to increase the probability to reach the results expected;*
- *Set goals that are Specific, Measurable, Acceptable, Realistic and Timed (SMART).*

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Forecasting

Is there a basic approach to estimate "the right people"?

Although the seven planning systems share planning principles and in most cases also the basic dimensions of planning (quantity and timing) the models and process to forecast those quantity in the future are varied. **At its basic stage, HWF planning consists in forecasting the evolution in the supply of and in the demand for healthcare services taking into account demographic variables.** Healthcare workforce forecast models function by projecting supply, demand, or both. To determine the evolution of supply, the initial stock of physicians, nurses, or any other health care professional is considered. The current health workforce is then updated according to the evolution of the factors known to affect it, like changes in the mortality and retirement rates, migration flows, medical school intakes, etc. Forecasting demand is arguably more complex, mostly due to a higher uncertainty over the estimate of the underlying parameters. Common economic factors like the evolution of demography, income or the GDP growth rate influence the demand for healthcare services.

A multi-professional approach to health workforce planning, taking into account the interaction between professions (vertical and horizontal substitutions) is also to be considered as essential for a reliable forecast.

What's "the right time"?

To set "the right time" it's necessary to take into account not only the training period (from 4 to 12 years) but, in case government wants to implement new policies, there is also a lead time due to all the legislative hurdles that have to be passed before any change can be started. A period of 6 to 7 years is considered realistic for any policy to be implemented, so it is considered realistic to use 5 and 12 additional years for changes to be accomplished. The total time frame is **therefore usually 12 to 18 years** from the present time. Therefore, any Country commencing with health workforce planning has to dampen the expectations on the short term, e.g. the first 6 to 10 years.

Is it feasible to forecast other HWF dimensions?

More comprehensive forecasting models consider also the skills of the workforce, their geographical distribution, the impact of technological progress, the epidemiological needs of the population or the kind of services provided and how all these factors

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evolve and their interactions within the system. System dynamic approach are very useful to forecast many dimensions interacting in a complex system.

Whatever dimensions are considered, the underpinnings of sound HWF planning is a credible and reliable forecast.

How to have a credible and reliable forecast?

Every forcasting has to be matched with the related margin of error.

It is important that the basic assumptions on which the forecasting models are based can be easily reviewed and changed and that the models are, in general, flexible, in order to be updated in particular the effects of significant health reforms or political priorities should be quantified and incorporated into the model.

It is also important that the models provide for the possibility of starting from a current imbalance between supply and demand. In the first years of modeling focus on developing a supply forecast combined with simplistic scenarios for the demand side:

- *for the supply forecast it is important that the models can formulate different scenarios related to different conditions of the supply;*
- *for the demand forecasts, in addition to aspects of the population, it could be important that the models take into account the budget constraints; also it is feasible to develop a qualitative method for involving stakeholders in the description of future demand.*

Minimum planning requirements

- *Forecast both supply and demand, first of all measuring and predicting the demographic variables;*
- *Involve stakeholders in the description of future demand;*
- *Provide different scenarios related to different conditions of the supply;*
- *Calculate the margin of error of the forecasting;*
- *Take into account the interaction between different health professions and the budget constraints;*
- *Set at 12 (for nurses) or 18 (for medical doctors) years the minimum time horizon and restrain expectations on shorter terms.*

Other recommendations for a better planning process

- *Focus the forecast on long-term structural factors and avoid being overly sensitive to cyclical fluctuations;*
- *Forecast the trend of dependence of the health care system on foreign trained HWF personnel;*

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- *Be able to forecast changing utilization rates because considering the current utilization rates is a good basis but is insufficient for forecasting future needs;*
- *Include parameters to address the issue of inequitable geographic distribution of the HWF;*
- *In order to ensure that the dependency is addressed and more workforce needs are identified".*

Data

How to look at the dimension "quantity"?

The **quantity** could be expressed in working **full time equivalents** or in headcount. The expression in full time equivalent is important because in most countries there appears to be a gender difference in average working FTE between males and females that changes very slow. Females tend to work less FTE on average than man. In combination with an expected feminisation of the health workforce this will augment the number of students required to enter education programmes. It's also important to distinguish the "**professionally active**" workforce and the "licensed to practice" workforce.

To have **updated data** on the quantity of health professionals currently active is also a necessary condition to have a reliable forecasting.

How to collect data?

It's common to use different sources for data collection, also because mainly the data useful for the forecasting exercise are usually not collected with planning purposes. In the first stages it recommended to start with the "most" easily available data and only in the next stages working on both improving the data quality and increasing the data quantity (inclusion of additional parameters / sources) on a continuous basis. At that point it could be necessary to design and implement standardized and automated approaches for data collection, analysis and reporting (templates, macros, statistical programming codes). Probably, in the beginning, there are only **aggregate data** available that is anyway sufficient to start the planning process. Then, it's necessary to improve data collection investing in a individual database. To build such robust data collection it's important to acquire political support in order to establish a legal framework (e.g. data access rights).

If the forecasting model requires data not available from any sources use **qualitative methodology to gather the information** needed (surveys, Delphi, estimations).

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Minimum planning requirements

- *Collect data from different sources setting up communication lines with concerned data managers and institutions.*
- *Use updated data to provide an accurate and comprehensive description of the current supply for both the stock and the flow and to give timely descriptions HWF demand.*
- *HWF planning is feasible also using only aggregated data. When data are not available use qualitative methodology to gather the information needed and in the meanwhile improve the quantitative data collection process.*
- *Measure the current and desired workforce in FTE focusing the analyses in the professionally active workforce.*

Other recommendations for a better planning process

- *In order to use individual, acquire political support in order to establish a legal framework (e.g. data access rights) and to build robust data collection.*
- *Identify and address actual gaps in data collection and promote consistent approaches to research in order to collect all information required including number of active professionals; number of full-time equivalent; types of providers; where they work; their skills; the services they provide and workloads.*
- *Build a national coordination mechanism to manage, improve and monitor the information system.*

Link to policy actions

How to reach the objectives?

The results of the planning system depends mainly on how the available levers are used. At the basic level, the most common lever used is the regulations of student intakes in education courses. And in many cases is the unique one.

Not being able then to question the only useful lever it is important however to use it to the best.

As such, it is important:

- *To communicate the goals and the target to a broader panel of stakeholders;*
- *To develops tools (i.e. check lists, guidelines) to evaluate and inform the decision making process on its own planning capacity;*
- *To establish a mechanism for the periodic monitoring and evaluation of the progress of implementation of interventions and initiatives for HRH development and management;*
- *Finally, to communicate the reached results to the government, the public, and the shareholders but without claiming any positive changes to be due to the planning process;*

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- *Previously reached results should always be mentioned in new health workforce planning goals, thus triggering an improvement cycle.*

Minimum planning requirements

- *Communicate goals, targets and tools available to reach them;*
- *Monitor continuously the HWF situation keeping stakeholders informed on the progress and changes in order to adjust and intervene with corrective actions;*
- *Evaluate periodically the planning capacity of the system;*
- *Communicate reached results and on that base, set the new goals.*

Other recommendations for a better planning process

- *Develop different strategies to shape the right needed workforce (retention, retirement, flexibility, financial mechanisms, etc.).*

Organisation

Who should be the responsible for planning?

A HWF planning system, due to its complexity (public interest, many actors involved, long-term objectives), requires a well-structured organisation to support it. Therefore it's important that roles and responsibilities of the people involved in the organisation are clearly defined and the widest participation throughout the process is guaranteed.

In case of decentralized planning, regional needs has to be considered but remembering that planning has to cover the overall needs of the country. Indeed, a national health workforce planning body that engages state, local, public and private stakeholders it's important, in order to develop an integrated, comprehensive, national health workforce policy that can be accomplished if all interested stakeholders work together.

Finally, it is easier to pursue long-term HRH development objectives when the responsibility for planning is in the hands of an independent agency, preferably accountable to Parliament rather than to a ministry.

When do stakeholders have be involved?

The key to successful planning system is the involvement of stakeholders at all stages of the process. Generally speaking, the rule is that before the stakeholders are involved the better is. This means that the involvement must focus already in the early stages, communicating them the objectives of the planning, till the end of the process, sharing

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with them the results. In any case engaging the stakeholders in the planning process does not mean always sharing and agreeing. However, there are some steps when even the sharing and agreement with stakeholders are important.

One important step in getting the stakeholders to share and agree should be the joint building and agreeing upon the model that will be used by the health workforce planners. The involvement of the stakeholders in getting the parameters of the models is important because they have expertise on the needs, as far as demographic changes, epidemiology, and cultural changes may be involved. Their expertise is valuable in approximating the parameters as close as possible.

Moreover, the participation of the stakeholders in the elaboration of scenarios is a useful lever to grant an effective involvement.

How to organise the stakeholders involvement in the planning system?

It's important to obtain a trustful involvement of stakeholders thanks to a transparent process that provides sharing data and tools allowing to them to be an active part in the process of scenario building (i.e.: on line database, .open access to forecasting tool, etc.).

In particular, it's important strengthening partnership between educational institutions and the health-care delivery system, between education system and health care system.

Regarding the organisation of the stakeholders involvement the key messages are:

5. *Identify the interested stakeholders in the health workforce field;*

6. *Create a structure to steer interaction with identified stakeholders;*

7. *Assign specific roles and responsibilities within this structure;*

8. *Establish a subcommittee that tries to implement the planning and forecasting committees wishes into a technical forecasting model;*

9. *Share and disseminate necessary information are among all stakeholders.*

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Finally, to be successful in managing the involvement of the stakeholders, it's necessary to invest in the recruitment and the development of skills of the experts supporting this system.

Minimum planning requirements

- *Define and implement a national body that engages state, local, public and private stakeholders and supports the planning process in every stage, with roles and responsibilities clearly defined.*
- *Establish a subcommittee that tries to implement the planning and forecasting committees wishes into a technical forecasting model.*
- *Identify all the interested stakeholders.*
- *Strengthen partnership between educational institutions and the health-care delivery system, between training system and health care system.*
- *Communicate goals and results of the planning process to the stakeholders and engage them in particular building and agreeing upon the model that will be used by the health workforce planners and in the elaboration of scenario.*

Other recommendations for a better planning process

- *Establish an independent agency responsible for planning, preferably accountable to Parliament rather than to a ministry, to pursue long-term development objectives.*

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