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Proposal of an output method for PPPs on (non market) health services

The development of an output method for health services in PPPs cumulates number of handicaps :
- the relationship between outcome (health status or health gains) and output (contribution of health services or health system) is less tight than elsewhere (some experts advance that 80% of the outcome does not come from the output);
- numerous providers are involved in "a complete treatment", and differently across countries;
- the "complete treatment" is supposed to be the ideal (but vague and perhaps impossible to catch, as a treatment is never completed before the death of the patient), the elementary procedure only a practical second best which will miss some technological progress (with the replacement of a procedure by another);
- health administrations have established very detailed DRGs (Diagnosis Related Groups), with several hundreds of items, but each country has done it on its way from the same original (American or Australian);
- the framework of the health accounts and this of national accounts do not coincide (scope, classifications).

From a purely PPP point of view, only "health services" are comparison-resistant within the health care system, and among them only "hospital services" are really comparison-resistant, for it should be possible to estimate the price of a consultation by a general practitioner or a specialist (or the number of consultations), or even the price of a single "treatment" by a specialist or a dentist, even if they are classified as "non-market" providers.

In any case, the classification of activities/products as in national accounts should be the central axis of PPPs and measurements of output. That means that the ICHA-HP classification of health care providers in the System of Health Accounts should be the main dimension to use for PPPs if they are to rely on detailed data from SHA, but this classification should be slightly revised to coincide with the scope of National Accounts, concerning the boundary between health and social ("nursing care" in SHA is very close to "social with accommodation" in NA and should be isolated or excluded). Considering that the same activities can be fully "market" or fully "non-market" according to the countries, but should be comparable, the market / non-market status of the "provider" will perhaps be forgotten, or used for national weightings.
If outcome is to be analysed in the same framework as output, that means that this providers classification should be crossed with the International Classification of Diseases (last updated ICD-10) dimension, exercise already experimented by some countries in so-called "cost of diseases" analysis.
But it is an ambitious perspective, not compulsory for PPPs purpose.

In any case, we suggest to calculate PPPs according to the following formulas :

VAL = VOL x PRICE
VAL = QUANT x UNIT COST
VOL = QUANT (num. of treatments) x QUAL H (average health gain of a treatment) x QUAL NH (other health quality)
=> VOL = (VAL / UNIT COST) x QUAL H x QUAL NH
=> PRICE = UNIT COST / (QUAL H x QUAL NH) = VALUE / VOL

If we are to calculate hospital services only, with a "classical" price approach, it should be possible to estimate "case vignettes" of treatments involving hospital services only, as the EU Health BASKET project is currently doing. Even 5 or 7 prices could be considered as enough, but it does not prevent from checking that the content of "hospital services" and of "general practitioners" is the same across countries in the case of general practitioners operating in hospitals (private / public) or prescribed drugs. If it is not spontaneously the case in National Accounts, it would imply the contribution of health accounts experts to arrange a presentation of National Accounts aggregates in a homogeneous way.

A direct volume approach of hospital services, by number of treatments by DRGs in a common classification inspired by the original US one, was our first idea, but it appears that the national classifications are not at present close enough. Anyway, some DRGs are common to all countries, and they could provide easy "unit costs" with correct quality parameters (perhaps less precise than case vignettes of EU Health BASKET), which could be used in the "classical" price approach mentioned above. Of course, the same precautions are to be taken for the homogeneity of the content of "hospital services" and other providers connected. But anyway, for unit costs by DRGs or for prices by EU Health BASKET project, a common imprecision relies in the conventions adopted for ventilating some costs but "forgetting" some other ones (10%, 20% of total hospital costs are not ventilated through DRGs ?).
DRGs like most of EU Health BASKET prices would estimate acute care only (psychiatric and rehabilitative care would be estimated by reference prices or by some simple number of occupant days).

The more ambitious approach, also the only one which could reduce all obstacles to comparability, would be to reconcile output and outcome, national accounts and health accounts, around a common framework crossing an adjusted classification of providers and an adjusted classification of diseases (+ prevention + some collective services…), that is a harmonisation of the "cost of diseases" national approaches. With strict recommendations on the homogeneity of the content of each provider, and instructions to ventilate all auxiliary or secondary costs among "diseases", this framework could synthesise the current approaches of "case vignettes" according to EU-Health BASKET, "burden of diseases", "health gains", could match the DRGs classifications and would provide "health in volume" according to the two significant axes (output by provider, outcome by disease).

This work, led mainly by health accounts experts for it is beyond the competence of PPP experts, would be completed by quality adjustments of two orders : "health treatment" and "non health treatment", the first one connected with QALYs and the second one explored by projects like HCQI.