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**Mini-presentation on Turnover/Output for:
Human Health Activities (ISIC Div 86)**

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1. Introduction

The purpose of this paper is to briefly describe the methods used to measure output for human health activities in the UK. Measurement of human health output presents many challenges for the UK and a review of this division has been carried out to try to improve upon the existing methods. This review has resulted in some proposals for changes to the methods used which will be implemented at the publication of the 2014 edition of the UK National Accounts (on 31st October 2014) and full details of the changes made will be published in an article published by the Office for National Statistics (ONS) on the same day.

2. Market characteristics and constraints

In the UK, human health activities represent approximately 5% of the output measure of GDP. The majority of human health services are publicly funded and are provided by the National Health Service (NHS). This non-market activity accounts for around 77% of all human health activities in the UK according to its weight in the most recent UK National Accounts (2013 Edition) and represents around one third of all Government spending.

Private healthcare services are also available, with the majority of these market services being sold directly to the consumer. However, providers of private healthcare services also deliver services on behalf of the NHS, particularly in areas such as social care. These healthcare services, which are provided in market settings but are non-market funded, are increasing in the UK and particularly following changes in legislation with the introduction of the Health and Social Care Act (2012). These subcontracted health services pose the greatest challenge in the measurement of output for human health activities in the UK.

3. Classification

According to ISIC (rev 4) human health activities includes activities of short- or long-term hospitals, general or specialty medical, surgical, psychiatric and substance-abuse hospitals, sanatoria, preventoria, medical nursing homes, asylums, mental hospital institutions, rehabilitation centres, leprosaria and other human health institutions which have accommodation facilities and which engage in providing diagnostic and medical treatment to inpatients with any of a wide variety of medical conditions. It also includes medical consultation and treatment in the field of general and specialized medicine by general practitioners and medical specialists and surgeons. It includes dental practice activities of a general or specialized nature and orthodontic activities. Additionally, this division includes activities for human health not performed by hospitals or by practicing medical doctors but by paramedical practitioners legally recognized to treat patients.

The ISIC classification breaks human health activities down into three broad groups:

ISIC (rev 4) Division 86 – Human health activities

861 – Hospital activities

862 – Medical and dental practice activities

869 – Other human health activities

NACE (rev 2) provides further disaggregation of Medical and dental practice activities:

NACE (rev 2) Division 86 – Human health activities

86.1 – Hospital activities

86.2 – Medical and dental practice activities

86.21 – General medical practice activities

86.22 – Specialist medical practice activities

86.23 – Dental practice activities

86.9 – Other human health activities

And the UK Standard Industrial Classification (SIC) 2007 provides further disaggregation again, providing additional detail for hospital activities:

UK SIC (2007) Division 86 – Human health activities

86.1 – Hospital activities

86.10/1 – Hospital activities

86.10/2 – Medical nursing home activities

86.2 – Medical and dental practice activities

86.21 – General medical practice activities

86.22 – Specialist medical practice activities

86.23 – Dental practice activities

86.9 – Other human health activities

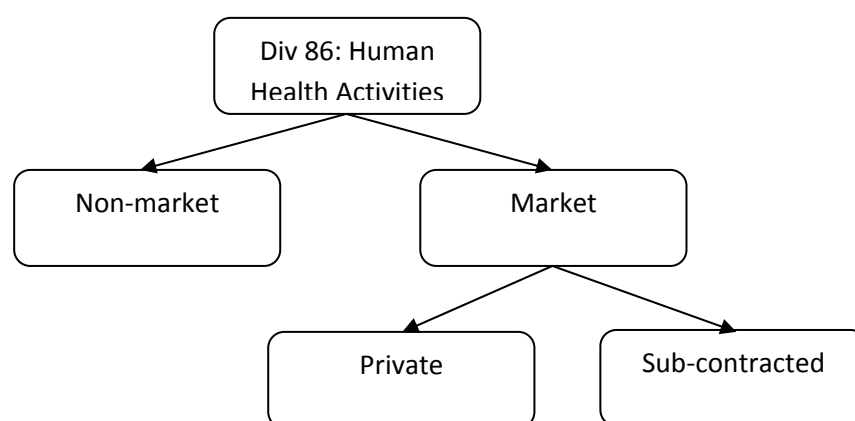
None of these classifications provide a breakdown between market and non-market activities which is important to the measurement of human health output in the UK. However, such a breakdown was available in a previous revision of the UK SIC (SIC 2003).

4. Measure of turnover/output

4.1 Definition of service collected

In the UK, human health activities are split into market and non-market services with further disaggregation to cover the subcontracted healthcare (Figure 1). This split between market and non-market healthcare is not provided in any classifications although hospital activities were split into private and public sector in an earlier version of the UK Standard Industrial Classification (SIC 2003).

Figure 1. Classification used in calculation of UK output for human health activities.



As a result of the lack of an appropriate classification to accommodate the UK market, and since no suitable sources of data are available to provide turnover or deflators for more specific service activities, the UK definitions used in the measurement of output for human health activities do not align with any current classifications.

4.2 Method for measuring output in UK

4.2.1 Non-market activity

For non-market human health activities, the health element of General Government Final Consumption Expenditure (GGFCE) is used to measure Government expenditure on health care services. This current price measure of input expenditure is used as a proxy for final consumption expenditure. Since health services provided by Government are not at market prices, a volume index is used to produce an implied deflator. The volume index used is the Government health services non-market output index, a cost-weighted activity index which covers 13 health activities and which is measured quarterly but annually benchmarked using much more detailed data. The resulting implied deflator is then used to deflate the GGFCE data and produce a constant price measure of non-market output.

4.2.2 Market activity

Currently in the UK, workforce jobs are used as a measure of market output for human health activities. A current price series is derived from this data by reflation using the Consumer Price Index (CPI) for health services. This current price data is then deflated, also using the CPI for health services, to give a figure for output.

Due to the recent introduction of a source of current price turnover data, which is now collected as part of the UK Monthly Business Survey, this approach will be changed later this year in the next publication of the UK National Accounts (2014 Edition). This new turnover data for human health activities will be used at divisional level only and will be deflated using the CPI for health services.

4.2.3 Subcontracted health care services

As mentioned previously, human health activities that are delivered in a market setting, but which are non-market funded pose the most significant problem to the measurement of output in the UK. The turnover generated as a result of these subcontracted services, which are provided both by private companies and charitable organisations, has been increasing, in particular since the passing of the Health and Social Care Act in 2012, and this increase is expected to continue.

Currently, since they are delivered mainly by private companies, these subcontracted services are considered to be market activity. The turnover of these companies in the provision of these services is derived using the Government health services non-market output index mentioned above which is reflated into a current price series using the CPI for health services. This series is then deflated, again using the CPI to give a measure of output in constant prices.

For the next publication of the UK National Accounts, this activity will be considered as a non-market service rather than a market service. This is because these services are paid for by the Government and not by the consumer so that the CPI is not an appropriate deflator for these activities. This can be demonstrated by the fact that this sub-contracted activity is recorded as intermediate consumption by non-market service providers.

4.3 Problems associated with measurement of output

There are a number of problems which the UK has had to overcome in order to produce a measurement of output for human health activities.

4.3.1 Data availability

There is a lack of suitable data available to allow the measurement of output, both for turnover and prices. A monthly source of turnover data for market services has only recently become available and the UK has no SPPI for human health activities. This prevents measurement of output below divisional level and means some methods are selected that are not ideal. For example, data on workforce jobs is currently used to measure output for market health activities, implied deflators (derived from government, non-market expenditure) which will include the effects of productivity changes are used in the absence of an appropriate SPPI and the Consumer Price Index (CPI) is used to deflate turnover for services paid for by the government and not consumers. However, as mentioned above, a recent review of the measurement of human health output means that improvements will be made to current methods for the next publication of the UK National Accounts (2014 Edition).

4.3.2 Subcontracted services

Human health services are increasingly subcontracted by Government to private companies (and in some cases not for profit organisations) which makes measurement difficult. It is not clear whether private companies charge market prices for services bought by Government, how services provided by charitable organisations should be handled or whether these services should be considered to be market or non-market. Since subcontracted services are paid for by Government and not consumers,

the UK has taken the view that these should be considered as a non-market service, a change from the approach currently taken.

4.3.3 *Classifications*

Current classifications do not include a split between market and non-market activities thereby not adequately representing the UK market for human health activities.

5. Summary

The measurement of output for human health activities in the UK poses a number of challenges which the UK has had to overcome.

For the measurement of both market and non-market prices, the availability and timeliness of suitable sources of turnover and price data is a problem and means that a number of compromises have had to be reached. Output is measured at a high level of aggregation that does not align with any current classifications and while disaggregation may improve the quality of the measures, this is not possible since data sources aren't available. The lack of suitable deflators for human health activities means that implied deflators must be used which will include the effects of changes in productivity, although this is common practice for measuring non-market output.

More significant problems have arisen from the measurement of subcontracted health services and in particular, whether these services should be handled as market or non-market services. It is not clear whether companies charge market prices when the services are paid for by the Government or whether services subcontracted to charitable organisations should be handled differently.

A recent review of the measurement of output for human health activities has proposed a number of changes to improve upon current methods. These changes will be implemented in the next publication of the UK National Accounts (2014 Edition).