

Department of Health: National Health Reference Price List (NHRPL)



health

Department:
Health
REPUBLIC OF SOUTH AFRICA

Costing Spreadsheet Notes

Enquiries: Mr S. Jikwana

Health Financial Planning & Economics Directorate

Tel: (012) 312 0669

Fax: (012) 312 3382

Email: jikwas@health.gov.za

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Introduction

This spreadsheet represents the typical practice of a hypothetical health care provider (HCP) group. The values used in the spreadsheet would in practice be based on a representative survey of members of the group.

The spreadsheet has the following parts:

1. **Fee Items.** The service items being proposed for inclusion into the NHRPL. The list represents all the services offered by the health care provider group. Two special service items (items 40010 and 40020) are included to show how services provided by only certain practitioners are dealt with.
2. **Income Statement.** Included for illustrative purposes to show how the estimated net income for the practice could be calculated.
3. **Labour.** Lists the personnel in a typical practice and allocates them to direct or indirect labour.
4. **Standard Equipment.** List the standard (typical) equipment (including furniture and fittings) used by a typical practice.
5. **Special Equipment.** List the equipment used to render certain services only (items 40010 and 40020 in this case).
6. **Overheads.** Consolidates all overhead costs and calculates the correction required for variability in surveyed overhead costs.
7. **Responsibility Values.** Calculates the responsibility values using the methodology described in Appendix B of the Guidelines.
8. **Parameters.** List the values of parameters used in the costing model and summarises the overhead and direct labour costs.
9. **Sample Survey Data.** Surveyed overhead costs with confidence interval calculation.

Fee Items

The starting point is to list all the individual services provided by the particular HCP group and the average durations associated with each service. In this case provision is made for assistant time and special equipment time as well. Assistant time should only be included if the assistant does not bill independently of the primary HCP. The general recommendation is to allocate assistant's time to indirect labour and not to account for it separately as in this case. It is done here only to show how it could be done.

Services 40010 and 40020 are specialist services that are only provided by certain practices and these services require the use of special equipment. The services are dealt with as a separate cost centre and the cost of the special equipment is recovered only through these services.

The responsibility factor for each item is calculated on the responsibility value sheet.

The direct labour cost for each item is calculated by multiplying the duration of the procedure with the direct labour rate (calculated on the labour sheet) with the responsibility value of the item. Note that in the case of items 40010 and 40020 the

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different times for the different staff involved are multiplied with their respective direct labour rates and summed to give the direct labour cost.

The overhead cost for each item is calculated by multiplying the maximum duration of the item with the overhead rate calculated on the parameters sheet.

An arbitrary rand conversion factor (RCF) is then used to convert the sum of the individual cost components to relative value unit (RVU) for the item. The RVU is then multiplied with the RCF and the standard NHRPL rounding applied to get to the final price for the item. Note that the RCF is arbitrary and its value does not influence this calculation (it appears on both sides of the equation). The RCF will only become important in future years when it is used to inflate the price in line with CPI without recalculating costs. The calculated price is VAT exclusive. To calculate the VAT inclusive price the RCF should be increased by the VAT rate.

The estimated time use profile (that is the percentage of the productive time of the primary HCP used to render the particular service represented by that item) is used here only to estimate realistic utilisation figures for each service. In practice the utilisation figures would be derived from the practices surveyed. The utilisation figures are only used to estimate the practice revenue and are not in any way used to calculate the item price.

Labour

This sheet lists the staff used in the typical practice. The total productive time (available work minutes per annum) available to each position is calculated from the base working minutes calculated on the parameters sheet (BASEVOL). The calculation takes into account ordinary leave, sick leave and a productivity factor. In practice each productivity factor will have to be further substantiated by calculations to show how it has been derived from the practice survey.

The expected annual remuneration for each position is given. The remuneration should be the total cost of the position to the practice including benefits such as health insurance and pension contributions. The cost of personal development (continuing professional education) is listed as a practice overhead and not included in the personnel costs. When the NHRPL is calculated standardised professional remuneration values will be used based on the prevailing public sector salary packages.

For each position the contribution of the staff member to direct labour is expressed as a percentage. Typically 100% of the primary HCP's time will be allocated to direct labour. In this example only a portion of the second HCP's time has been allocated to direct labour. The cost of support staff such as the receptionist and cleaner is allocated to indirect labour in total.

The adjusted standard volume for each position is calculated (if the person is fully allocated to indirect labour this value is not applicable). The adjusted standard volume is the total productive time (in minutes) times the weighted mean of the responsibility values for all fee items (calculated on the responsibility value sheet). The effect of this calculation in practice is that the HCP whose service mix is equivalent to the average mix will earn the indicated remuneration. Those who do more complex procedures (higher mean responsibility value) will earn more. Conversely those who do on average less complex procedures will earn less.

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Finally the direct labour rate per minute is calculated by dividing the portion of the remuneration allocated to direct labour by the adjusted standard volume.

Standard Equipment

All the standard equipment, furnishing and fittings are listed here. It is recommended that this be done by standard area (e.g. consulting room, reception, treatment room, etc). Only fittings whose costs are not covered in the rental cost of the premises may be included.

The current acquisition cost and expected life time of each item is listed. The annual amortised cost over the life time of the item is then calculated based on the prevailing prime overdraft rate. Provision is made for the maintenance and insurance of each item. A standard provision of 2% of the capital cost per annum for maintenance (and only for equipment that requires maintenance) is allowed. Items such as furniture or fittings that do not require regular maintenance should not include this provision. An insurance provision of 1% of the capital cost per annum is allowed. The basis for maintenance and insurance rates that differ from the standard allowance must be provided.

The annual contribution to overheads by each item is calculated by summing the amortised annual cost, maintenance cost and insurance costs. The depreciation period must be consistent with the write-off periods allowed by SARS (See Practice Note No. 15).

Special Equipment

The annual cost of special equipment is calculated in the same way as for standard equipment. A special equipment overhead rate is then calculated by dividing the annual overhead costs of the special equipment by the standard volume for the equipment. The productivity factor (the proportion of the available time that the equipment will be in use) used for the equipment must be substantiated. The special equipment overhead rate is added to the overhead rate when overheads are allocated to the fee items in the cost centre using this equipment (see item 40010).

Overheads

The indirect labour costs and standard equipment costs calculated above are consolidated into total overheads on this sheet. All overheads that is not part of indirect labour or equipment are then quantified. *Note that equipment financing, insurance and maintenance has already been accounted for in the equipment overhead and should not be added here again.*

Each item included in overheads should be substantiated on the basis of findings from the practice cost surveys and the calculations to derive the annual value listed shown. All overhead costs should be exclusive of VAT (input tax).

The total overhead amount is adjusted downward to account for uncertainty in the surveyed overheads. For an example on how this is calculated see the survey sheet. The basis for this adjustment is to increase the likelihood that the real average overhead value is at least the value used.

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Responsibility Values

The method explained in Appendix B the Guidelines is applied here to calculate a responsibility value for each item. The adjusted utilisation is simply the base utilisation times the responsibility value of the item. The total adjusted utilisation is divided by the total unadjusted utilisation to calculate the weighted mean responsibility value. The weighted mean (based on utilisation) responsibility value is calculated for use in adjusting the direct labour standard volume. The direct labour standard volume is multiplied by the weighted mean responsibility value to obtain the adjusted direct labour standard volume. This calculation ensures that a practitioner with a typical case mix will earn the benchmark professional remuneration, whereas those with a more complex case mix will earn more than the benchmark remuneration.

Parameters

This sheet contains named parameters, which are used in calculations throughout the costing model.

The mark-up on overhead is calculated by deriving a expected rate on return on investment after tax from the banker's acceptance rate. This rate is then adjusted using company tax rates to calculate the mark-up.

The total annual overhead is divided by the calculated standard volume for overheads to calculate the overhead rate per minute.

Return on investment is calculated by applying the calculated mark-up on overhead (see parameters sheet) and a return on investment rate per minute calculated.

Overhead values are adjusted to take the estimated inflation (CPIx) for the next year into account.

Overheads

Total overheads	539,784
Confidence interval as % of mean	7.1%
Adjusted overheads	<u>501,529</u>

Must be calculated from the surveyed overhead submissions

Overheads	Description	Amount	Notes
Personnel costs			
	Indirect labour costs	270,003	Calculated
	Salary related levies & taxes	8,000	UIF, Skills levy, RSC levies
	Professional dues & continuing education	10,000	
	Protective clothing and uniforms	3,000	
Premises			
	Rental of space	30,000	
	Building maintenance & repairs	7,500	
	Services	12,000	Water & electricity, local authority rates & taxes, cleaning services
	Medical waste removal	2,800	
	Security	6,000	
Practice Management & Administration			
	Accounting, audit and management fees	12,000	
	Advertising & marketing	6,000	
	EDI and medical scheme administration fees	6,000	
	Software licensing & support	7,500	
	Communication costs	12,000	Telephone, internet
	Legal expenses	2,000	Exclude malpractice insurance & legal fees associated with bad debts
	Postage and courier services	7,000	
	Printing and stationery	6,000	
	Transport costs	32,000	
Financing & Insurance costs			
	Bank charges & interest	16,000	Exclude equipment financing charges
	Credit card commission	1,000	
	Bad debt costs	23,147	Calculated
	Practice risk insurance	6,000	Exclude equipment insurance
	Malpractice risk insurance	3,000	
Indirect material			
	Indirect material	18,000	
Sundry expenses			
	Sundry expenses	3,000	
Standard Equipment			
	Standard Equipment	50,834	Calculated
Overhead recovered			
	Overhead recovered	(21,000)	

NOTE

All overhead costs should be exclusive of VAT