National Disability Services (NDS)

Analysing Time:

A guide to understanding key elements of workforce costs under the NDIS

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Disclaimer

The information provided in this document is made available in good faith and is believed to be accurate at the time of publication. However the document is intended to be a guide only and should not be seen as a substitute for obtaining expert advice.

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Glossary

Associated Service Time: Productive time spent undertaking activities associated with client-facing time (e.g. preparation, finalisation, travel, liaison with other professionals), in accordance with the organisation’s service delivery model.

Available Time: The amount of paid time a worker is available to attend to work duties. Equal to paid time less unavailable time.

Billable Time: The amount of productive time spent delivering billable services (that is, services that are billable according to the Service Agreement).

Client: The person receiving the services.

Client-facing Service Time: Productive time spent servicing a client face-to-face, in accordance with the organisation’s service delivery model.

Front-line Workers: Workers who have direct contact with clients, together with their first-line supervisors.

Full Time Equivalent (FTE): An FTE is the hours worked by one employee on a full-time basis. In the disability sector this is typically 1,976 hours per annum. The concept is used to provide a basis for comparing the hours worked by part-time employees with the hours worked by full-time employees.

Service Delivery Model: Broad definition of the type of services delivered by the organisation, this can include: a description of the activities that are to be undertaken in delivering services and supports; by what type and level of workers; and for what durations.

Non-billable Time: The amount of productive time that is not billable according to the Service Agreement.

Non-productive Time: Available time spent undertaking work activities other than delivering services in accordance with the service delivery model.

Organisation or Provider: A provider of disability services.

Paid Time: All time for which a worker is paid.

Productive Time: The amount of available time spent delivering services.

Service Agreement: The agreement between the client and the provider for the provision of billable services.

Services: The services and supports provided by the organisation. Services can be billable or non-billable.

Unavailable Time: The amount of paid time a worker is not available to attend to duties. Workers may not be available to attend to work duties because they are on regular leave (annual leave, sick leave, personal leave, long service leave, and public holidays) or on a rostered day off (RDO).

# Introduction

As in other human services organisations, workforce is the most significant resource and cost element in disability services. Because of this, it is the area where competitive advantage and efficiencies may be sought and an area that warrants close attention. It is also the most complex area to plan and manage for effective service delivery. Staff must be adequately trained, experienced, and deployed at the right times to meet the needs of both the current and future operating environments while placing client choice and control at the centre of workforce decision-making.

We know that one impact of the NDIS roll-out will be the workforce impact associated with the expansion of demand as more people living with disabilities enter the system. Efficiency in this area is critical in order to allow your organisation to grow in a sustainable way. Importantly, achieving workforce efficiency is also an important element in overcoming an expected shortfall in workforce capacity due to increasing demand (higher labour efficiency allows for meeting a higher level of demand for service with a given level of staff).

From commercial, operational and mission perspectives, accurate matching both of existing supply to existing demand, and future supply to future demand, are significant issues. Disability organisations need to balance the need to limit the amount of non-billable time with the capacity to service new clients who approach the service, and to be flexible enough to cope with fluctuations in daily, weekly and yearly schedules that are arising as consumers have more choice and control of their lives under the NDIS.

Organisations require a capacity to understand, plan and strategise around how they utilise their workforce in order to:

* effectively respond to client needs in a choice environment;
* offer satisfying jobs to attract and retain good staff;
* ensure efficiency in the deployment of staff;
* plan for significant uplift in expected client numbers; and
* strategically achieve efficiencies in their cost base.

Organisations must also balance operational and cost efficiency with their need to comply with the other critical aspects of service delivery—clinical/organisational governance, quality standards, occupational health and safety, and relationship management. These topics are not covered in this guide but we should always approach workforce decisions with the broader context in mind.

# This Guide

This guide concentrates on the organisation’s perspective and specifically on the mechanics of workforce utilisation – the factors affecting the availability and use of workers who provide or directly support service delivery.

By describing, from a utilisation and management perspective, the different elements that comprise working time, this Guide is intended to be useful to organisations in support of their budgeting, costing and pricing, rostering, management and supervision, and organisational development. It can also be used to support the workforce planning process, where a forecast of staff hours, numbers and types forms one element in designing a workforce plan.

# Key concepts and definitions

The Glossary on pages 1 and 2 defines the main terms used in this Guide. We recommend you review this section prior to proceeding as it is important to understand the fine distinctions between the defined terms, as they are needed when understanding important principles in delivering services under the NDIS. These include the following:

* While client schedules drive frontline worker rosters, they are not the same thing - time will be rostered for front-line workers that does not appear on any client schedule (such as travel to and from the client).
* Billable time and rostered time are not necessarily equal – not all time spent in delivering the service is reflected in the unit of measure that is billed (for instance, any preparation, finalisation or travel time that is not explicitly included in the service description as per the service delivery model).
* Billable time and client schedules are not necessarily equal – the billable unit of measure could allow for some associated service time whereas the client schedule will only show the time for delivery of client-facing services.

Below we discuss two key concepts that are helpful when thinking about the components of working time and costs. These are:

1. Productivity – determining **available** and **productive** time
2. Utilisation – determining **billable** time

The NDIA’s approach to these concepts is then described, followed by a discussion of levers that can be used to utilise the workforce optimally. Note that what optimal working time utilisation looks like will depend on the characteristics of each organisation – there is no single correct approach.

# Productivity

Workforce productivity is the extent to which a worker’s **available time** (paid time minus leave and Rostered Days Off, see Glossary) is applied to delivering **services** (as opposed to undertaking other ‘non-productive’ activities like professional development). It equates to how much productive time is worked out of a worker’s available time, and can be shown in the form of a ratio or in a diagram like Figure 1 where (within limits) better productivity is achieved by reducing non-productive time.

**Productivity concepts — productive time relative to available time**

There are two elements to consider: available time and productive time.

### Calculating available time

Table 1 shows an example of how to calculate available time, noting that the figures used in it are intended to be realistic but not necessarily representative of an ideal.

**Table 1: Example calculation of available time**

| **Time element** | **Explanation** | **% ofpaid time** |
| --- | --- | --- |
| Paid time | A full-time worker on a 38-hour week will typically be paid for 1,976 hours/year under the relevant industry award. | 100.0% |
| Unavailable time | A permanent full-time worker will have roughly 20 days annual leave + 8 days public holidays\* + sick leave, other leave and possibly RDOs = approx. 38 days/year | 14.6% |
| Available time | Paid time minus unavailable time = 1,687 hours | 85.4% |

\* an average figure of 8 days has been used since not all staff will be rostered to work on public holidays. Other leave allowances are estimates based on NDS Workforce Wizard data, but figures should be customised for each organisation. For example, some providers in North Queensland add an extra week to unavailable time to accommodate the impact of cyclones and natural disasters.

The split between **available** and **unavailable time** is mainly determined by laws, employment contracts, regulations and workplace agreements regarding leave, time off in the case of long-term illness, time in lieu, and so on. However, in reality not all leave is always taken each year. Therefore, determining available time as a percentage of paid time requires an analysis of the actual use within your workforce of paid leave and arrangements like rostered days off. This will allow organisations to get a better understanding of their actual workforce capacity.

### Calculating productive time

Getting clarity on the productive and non-productive time for the workforce is important for setting budgets and determining workforce capacity and availability. Productive time is made up of client facing service delivery time and any associated service time (see Glossary). The NDIA refers to productive time as client-facing time; even though not all client-facing time is billable. See Section 6 for a discussion of the NDIA’s approach.

Unlike available time, the split betweenproductive and non-productive time results mainly from organisational policy settings – the organisation forms a view on what activities it wants employees to undertake in addition to providing direct services to clients, and how much time it wants devoted to those activities.

Note that **non-productive time** is important (that is, it has a specific purpose – it is not ‘dead time’ or a buffer) and it has a cost, so employees should be encouraged to work in accordance with the agreed settings and neither exceed nor fall short of their organisation’s expectations.

The following activities might fall under **non-productive time**:

* administration (e.g. travel claims, leave requests)
* taking part in audits
* attendance at training or professional development opportunities
* business development (e.g. maintaining relationships with mainstream supports like schools)
* clinical governance (e.g. research, staff supervision, student supervision)
* learning (e.g. reading changes to policies and procedures, reading staff updates)
* NDIS liaison and negotiation on behalf of or related to clients
* meetings (e.g. with team leader, with team, with other teams)
* organisational involvement (e.g. contributing to planning processes)
* peer interaction (e.g. handovers, shadowing)
* personal breaks
* quality reviews
* travel that is not client-facing time or associated service time
* life’s unknowns (whether heavy traffic or a lost Internet connection, life will inevitably throw up challenges to productivity)

On occasions employees may be given additional duties, and again the nature of the duties should be specified as well as the aggregate amount/proportion of available time that should be spent on them. It can immediately be seen that, although from a simplistic cost perspective reducing non-productive time is rational, there are many risks with such a strategy that could reduce productivity and service quality in the longer term.

To define the amount of time an organisation wishes front-line workers to spend on (or allow for) these various non-productive activities, it is important to also recognise factors that might influence how much non-productive time individual workers may require. Experience, type of service, role and personal circumstances (e.g. returning from illness) should be considered in specifying the amount of non-productive time.

A way to define an appropriate quantum of non-productive time is to assign an average frequency and duration to each activity across the organisation, and identify where there are likely to be deviations from this average. In putting together a table such as Table 2, an organisation needs to aim for specific, accurate results where possible, but otherwise make estimates based on assumptions.

**Table 2: Example tool for calculating productive time**

| **Activity** | **Frequency** | **Instances per year#** | **Duration per instancehours** | **Duration per yearhours** | **% of Available time\*** |
| --- | --- | --- | --- | --- | --- |
| One-on-one meeting with Team Leader | Monthly | 9 | 1.5 | 13.5 | 0.8% |
| One-on-one meeting with Clinical Supervisor | Monthly | 9 | 1.5 | 13.5 | 0.8% |
| NDIA/LAC liaison | Weekly | 40 | 0.5 | 20.0 | 1.2% |
| Regional meeting | Quarterly | 4 | 3.5 | 14.0 | 0.8% |
| Professional development – face to face | Bi-annually | 2 | 8.0 | 16.0 | 0.9% |
| E-learning | Monthly | 10 | 1.5 | 15.0 | 0.9% |
| Team and general staff meetings | Quarterly | 4 | 2.0 | 8.0 | 0.5% |
| **Total non-productive time** |  |  |  | **100.0** | **5.8%** |
| **Total productive time** | **1,587 hours or 80.3% of paid time** |

NB \*Available time from Table 1 equals 1,687 hours. Numbers are rounded to nearest decimal point.

As before, the figures in Table 2 are not intended to be prescriptive but are examples only. Estimates for staff providing personal support will be different to those for staff working in the community, and one-to-one supports will differ from group services.

Collecting the evidence for the table can be done in a number of ways:

* The total quantity of non-productive time for workers might be known or knowable by calculating back from the billing and payroll systems and records, or checking with experienced people.
* The details of individual, team and regional meetings can be determined from policy documents and verified against calendars.
* Negotiation time can be ascertained from historical performance.
* Professional development time can be ascertained from workers’ professional development plans.

If an organisation wants a more accurate or detailed composition of non-productive time then it will need workers to maintain time records for that time, just as they do for billable time. Note that there are system, process and people implications of expanding the extent of timekeeping that need to be considered. An organisation contemplating extending timekeeping should undertake a cost-benefit analysis, discuss the frontline impacts to scan for unintended consequences, and develop a change management plan to ensure the change will be properly embedded and hence deliver fully to expectations.

# Utilisation

Utilisation is the extent to which the **productive time** of **workers** is applied to delivering **billable services** (as opposed to delivering **non-billable services**, exceeding the policy settings for **non-productive time**, attending to personal affairs, or doing nothing). It can be shown in the form of a ratio or in a diagram where (with caveats) better utilisation is achieved by reducing non-billable time.

Although maximising billable time helps an organisation meet financial targets, in human services (and perhaps particularly in disability services) there are structural and behavioural constraints that prevent workers from making productive time fully billable.

Structural utilisation constraints may include:

* Non-billable services—some associated services may simply be not billable (for example, travel time in excess of a contracted cap, providing services that fall outside a client’s Service Agreement, incident reporting to funders, non-funded case management, crisis care, or child protection referrals).
* Scheduling efficiency—gaps between appointments (or even within appointments, e.g. waiting for clients while they are seeing a specialist or GP) that cannot be filled with approved non-productive activities become non-billable.
* Travel efficiency—the amount of time spent undertaking non-billable travel is partly a function of how efficiently appointments are geographically clustered and sequenced.

The extent of structural utilisation constraints depends on the type of service being provided (for example, supported accommodation might achieve a very low non-billable result, while in-home services it might be higher) and each organisation’s service delivery model.

Behavioural utilisation constraints may include:

* Clients being late for their appointments—unless borne by the client, this may extend the time taken to service the client without increasing billable time.
* Clients cancelling or rescheduling their appointments—unless mitigated via other billable work (for instance, another client on standby to receive a service at short notice) or approved non-productive activities, this may create dead time (depending on whether the NDIA’s maximum chargeable cancellations/year/client has been reached).
* Employee engagement—this will affect the commitment and focus workers have on delivering services or undertaking approved non-productive activities as opposed to attending to personal affairs or doing nothing.
* Employee compliance—the extent to which people work in accordance with the service delivery model and approved non-productive activities (for instance, spending time on a service in excess of that specified in the service delivery model).
* Supervision effectiveness—this will impact on employee engagement and compliance.

From a business perspective, organisations would seek to minimise these constraints. However, from the client and worker perspective things may look different. Clients often prefer to be supported by the same workers (those they are familiar with or have developed a relationship of trust with), but optimising travel efficiency may mean the same worker that supported them in the morning might not be closest to them when they need supports in the afternoon. The organisation in this case will have to decide to either send the closest worker for business reasons or meet client preference and ‘sacrifice’ travel efficiency in order to provide consistency for the client.

Similarly, one of the features that clients regard positively in assessing the quality of the service they receive is the amount of ‘discretionary time’ workers can apply. This is time when a worker goes ‘above and beyond’ minimum service levels, and will not be available if workers feel in too much of a hurry to move to another client.

Providers working in Aboriginal communities emphasise the need to develop the trust and confidence of clients through casual encounters and informal connections, as well as formal support work.

As noted, **billable time** could be conceived as being equal to **productive time**: this is a theoretically ideal position for the organisation—achieving billable outputs equal to productive inputs—and could be described as ‘100 per cent utilisation’. For all the reasons just mentioned, it is likely that most providers will experience and should plan for billable time being less than productive time, as shown.

For setting budgets and determining workforce utilisation, it is necessary to define the amount of productive time an organisation expects to be non-billable. A way to do this is to consider all the structural and behavioural utilisation constraints described above and assign an assessment of expected impact over a year, such as in Table 3; aiming to be specific and accurate where possible, but otherwise making estimates based on assumptions. Doing this may also encourage the provider to identify ways non-billable time can be reduced. For example, non-billable time can in some circumstances be reduced by reading previous shift notes with a client present and inviting them to comment and contribute their own observations.

**Table 3: Example tool for calculating billable time**

| **Utilisation constraint** | **Non-billable timehours** | **% of productive time\*** |
| --- | --- | --- |
| Non-billable services (from Service Delivery Model) | 80 | 5.0% |
| Scheduling issues | 40 | 2.5% |
| Travel that can’t be billed | 40 | 2.5% |
| All behavioural constraints | 66 | 4.2% |
| **Total non-billable time** | **226** |  **14.2%** |
| **Total billable time is 1,361 hours or 68.9% of paid time** |

NB \*Productive time from Table 2 equals 1,587 hours. Numbers are rounded to nearest decimal point.

# The influence of the NDIS and the Reasonable Cost Model

In the NDIS environment some concepts are shaped by the way the NDIA has developed its pricing framework.

The National Disability Insurance Agency (NDIA) has established what it calls the Reasonable Cost Model.[[2]](#footnote-2) This model is intended to articulate clearly what the NDIS includes in its price offered for the various services it funds. It is not suggested that providers necessarily look to arrange themselves to replicate this model, but that they use it to help them understand what components they should include in their assessment of costs, and also to reconcile their costs with those prices offered by the NDIA.

The model tries to build up the unit prices from the bottom up by estimating the components that they are composed of. These include hourly wage costs and other employment-related costs, the costs of corporate overheads and supervision costs, return on capital and so on.

Some of the costs it references (but only partly incorporates) are well-known existing standard elements, like the modern award and National Employment Standards. It is nevertheless important to understand how the NDIA factors these into its pricing. The NDIA also deploys two concepts in a manner that is important to understand for disability providers undertaking workforce planning: ‘client-facing time’ ratio and ‘supervision – span of control’ ratio.

### Client-facing time

The client-facing time ratio is defined by the NDIA[[3]](#footnote-3) as:

Client facing direct support time per unit of measure over total direct wage time to deliver the unit of measure

The assumed result is stated by the NDIA for assistance with personal care work at standard and high intensity (complex support) rates to be as per Table 4. Note that the NDIA foresees that the current ‘transitional’ period of pricing will eventually be replaced by an ‘efficient’ model[[4]](#footnote-4).

**Table 4: Extracts from NDIA's 'Transitional cost model' and 'Efficient cost model'[[5]](#footnote-5)**

|  | **Transitional cost model** | **Efficient cost model** |
| --- | --- | --- |
| **Drivers** | **Standard** | **High intensity** | **Standard** | **High intensity[[6]](#footnote-6)** |
| Client-facing time incl. leave | 85% | 80% | 85% | 80% |
| Client-facing time excl. leave | 95% | 90% | 95% | 90% |

The NDIA does not define what it regards as ‘client-facing’. However, a reasonable assumption would be that it is trying to distinguish between time spent delivering services and time spent undertaking other duties.

In this Guide, the term ‘client-facing time’ is used more narrowly to describe the time spent literally face-to-face with the client, so this guide’s equivalent term for ‘client-facing time’ as described by the NDIA is ‘productive time’: all the available time spent delivering services (therefore, the sum of ‘client-facing time’ and ‘associated service time’). As noted earlier, the NDIA assumption is that productive time is entirely billable.

Note that the NDIA data presented in Table 4 comes in two variants, with the difference being whether the denominator ‘Total direct wage time to deliver the unit of measure’ includes or excludes leave. The ‘incl. leave’ variant corresponds to this guide’s ‘paid time’ while the ‘excl. leave’ variant corresponds to this guide’s ‘available time’.

Following the mapping of terms just described, the equivalent in this guide to the NDIA ‘client facing time ratio’ is the ‘productivity’ ratio. This guide does not provide a prescription for what the productivity ratio could or should be—that will differ from service to service and from organisation to organisation. However, as stated above, you should consider the NDIA assumptions when making your productivity settings and developing a service price that will be compared to the Reasonable Cost Model. This will allow you to identify key differences between your costs and the NDIA’s expectations of cost so that your organisation can strategise with respect to closing the gap.

For example, in the example calculation given above, the FTE billable time comes to 1,384 hours or 70 per cent of paid time, which is much lower than the NDIA assumption of 85 per cent. Strategies to address this could include reducing some of the non-billable costs identified during the estimation process, or reducing other costs (e.g. overheads) to below the NDIA’s assumptions to compensate.

### Supervision

The supervisor span of control ratio is defined by the NDIA[[7]](#footnote-7) as:

Number of client support hours supervised over Number of waged program management and administration hours

The transitional ‘efficient result’ is stated by the NDIA to be 1:15 FTE, with this result expected to rise to 1:18 FTE beyond the transitional period.[[8]](#footnote-8)

There are several weaknesses in this uniform approach that providers ought to be aware of:

* The numerator ‘number of client support hours supervised’ is not necessarily reflective of the number of support workers being supervised (the typical measure)—a span of control is only effective if the supervisor is able to communicate adequately with each support worker and to supervise the support workers within their sphere of responsibility in the context of service quality and clinical governance. The number of client support hours supervised will correlate with the number of support worker hours but does not alone provide a reliable measure of what would be an effective supervision ratio.
* The ‘efficient result’ is standardised across all services and all levels of intensity—to supervise adequately may mean a smaller ratio of supervisors to front-line staff in many service provision categories. This is an important point of consideration when we think of service quality and clinical governance. While the span of control may be articulated by the NDIA as part of the Reasonable Cost Model price, the risks related to safeguarding and quality are borne by the provider and the span of control must reflect the nature of that client risk regardless of the pricing component included. Ultimately of course, it may mean that an organisation may be better placed by discontinuing a service if the risk it faces cannot be satisfactorily mitigated within the pricing envelope.

# Summary of key concepts

Figure 3 shows the how the various components of time add up to total paid working time.

**Figure 3: Classification of employee time—a bottom-up view**



This figure reflects the case of a permanent employee who is entitled to paid leave. For a casual employee, there is less unavailable time (usually mandatory professional development) and consequently the bars for paid time and non-billable time would be shorter (extending no further to the right than the bar for non-productive time).

It is a hard, commercial truth that financial viability must always be a high priority for an organisation, for without the financial capacity to operate there will be no ability to continue delivering services (“There is no mission without margin”[[9]](#footnote-9)). Productivity and utilisation are key concepts for the organisation in converting paid time to billable time, so their settings are critical to the cost of service delivery and ultimately to financial viability.

An organisation needs to control productivity and utilisation in order to achieve predictable results. Combined with an articulated strategy and person centred systems and processes, these business rules provide a framework for support workers in which to operate. How individual support workers will respond to this environment could depend on many factors, including their capabilities, the work culture, and how realistic the targets are. It is easy to imagine how an organisation might get the environment very right or very wrong, with implications on service delivery and staff engagement, so these are far from trivial matters. All proposed business rules or changes to current rules should be thoroughly tested (including consultation with those affected) before being implemented.

The client will feel the effect of the organisation’s business rules in a similar way to support workers—their support environment will be structured and transparent. They (and/or their family or carers) will be included in discussions with workers about all aspects of their plan, and the billability of services will be something that will be discussed regularly.

# Capacity elasticity

Capacity elasticity is the ability of an **organisation** to increase or decrease the volume of **services** it can provide without increasing or decreasing the headcount of its **frontline workforce**.

Capacity elasticity is closely related to workforce flexibility and efficient workforce management. It is obvious that an organisation has the ‘flexibility’ (at least theoretically, and always at a cost) to increase its capacity by taking on more staff, but this is not really flexibility, more just an option to increase supply, with the associated costs. The objective an organisation should strive to meet is to maintain an up-to-date understanding of how much spare capacity it can draw upon without recruiting more staff and where it can decrease capacity if demand falls, so it is clear about options to respond to fluctuating demand from within.

Why is this understanding important? There are three reasons:

* For clients and potential new clients, it is the difference between receiving services promptly or being declined, or delayed, while the organisation recruits someone new;
* For individual workers, it means their working time preferences are being understood by their employer and potentially increases the likelihood that those preferences will be met; and
* For the organisation, it aids the making of correct decisions about whether to seek and/or accept new work or how to deal with cancellations or clients leaving the service.

Table 4 is an example of a form that could be used to gather the working time preferences of a worker during the orientation and induction period, and then regularly updated electronically or on paper.

**Table 4: Example working time preferences form**

| **Day****Shift** | **Mon** | **Tue** | **Wed** | **Thu** | **Fri** | **Sat** | **Sun** | **PH** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **AM** |  |  |  |  |  |  |  |  |
| **PM** |  |  |  |  |  |  |  |  |
| **Evening** |  |  |  |  |  |  |  |  |
| **Overnight** |  |  |  |  |  |  |  |  |
| **Times of year not available:** |
| **Name:** |
| **Last updated:** |

In terms of downward flexibility, providing the ability to temporarily reduce working hours if clients leave and no replacement clients are readily available, the organisation’s working time policies, including any enterprise agreements or flexible working time policies can be of assistance. An enterprise agreement for example may allow hours to be averaged over a longer period than the award, and organisations may be able by negotiation temporarily reduce rostered hours. The recent Fair Work Commission decision on part-time and casual work made as part of the Modern Award Review makes it clear that regular part-time work can nonetheless include seasonal fluctuations, and rosters that change according to a predictable pattern. This can help overcome reduced demand in holiday periods. Reductions in casual and any agency staff are of course another strategy if client demand changes.

A common obstacle to optimal utilisation in disability organisations is that different sections of the organisation engage and ‘own’ their own staff. Average hours are very low in the disability sector, currently at around 22 hours/week. Yet at the same time many disability workers want more hours of work, and this is often cited by workers as the main reason for changing jobs. In fact, Workforce Wizard[[10]](#footnote-10) indicates interesting variations between states and territories across the country indicating change is possible. Reducing the recruitment of new staff in another section of the organisation may be one way to balance a downturn in client hours in another section.

### Other considerations

There may be other worker capabilities that need to be tracked, such as qualifications, whether various types of mandatory training have been completed, personal interests, hobbies and skills, whether shadow shifts have been undertaken with particular clients, experience in working with certain types of client, etc. These matters all pertain to matching each client’s preferences and needs.

Capacity elasticity is not only a function of personnel availability and suitability—the organisation that supports the delivery of services also has a natural capacity that needs to be considered. Usually, when activity (that is, service volume) levels rise beyond the capacity of the organisation so that fixed costs are increased, we say that the organisation has moved outside the top of its ‘relevant range’ of activity: the range of activity in which the assumptions made about fixed and variable costs are true. For instance, if activity increases beyond a certain level, it may be necessary to increase fixed costs by employing a general manager or leasing more office space. Conversely, such an increase may cause the variable costs to be reduced as a result of economies of scale.

One particular consideration for an organisation looking to increase its level of activity is whether the systems that support human resources management will cope. Additional staff will certainly increase the volume of payroll transactions, and this alone may require investment (e.g. purchasing a higher capacity licence for human resources management software). Additional staff might also increase the number of different employment contracts and awards being applied by the organisation, which may require investment (e.g. moving to more sophisticated human resources management software).

# A scenario: flexible working in a therapy setting

This section explores a scenario which demonstrate the issues discussed above. We highlight the relevant issues, the response options available, how to consider those options, the implications (both positive and negative) of the possible responses, and how to measure performance (that is, the relevant metrics).

While the scenario is written from the perspective of the organisation, the consideration of the options available considers the requirements of the client, the frontline worker and the organisation. The analysis is generic and intended to be illustrative rather than exhaustive. The common theme in considering the options is to find the right balance between:

* the client having and exercising choice and control;
* the frontline worker having their preferences respected; and
* the organisation being cost efficient.

Importantly, this Guide is biased towards the options that deliver greater decision-usefulness. A good counterbalance to this bias is to remain conscious that most change requires investment (one-off and ongoing) and the benefit should be proven to exceed the cost before the change is selected.

The scenario

A provider of early intervention therapy services is considering whether to offer their full-time frontline staff more flexibility by allowing them to work a nine-day fortnight. Before taking this step they want to know what the impact will be on their workforce productivity and utilisation. They run a 9:00am to 5:00pm, centre-based service with clients coming to them for 1-hour appointments. Each 1-hour face-to-face appointment comes with 0.5 hours of associated service time, of which half is billable and half is not.

The relevant issues

Productivity and utilisation are the organisation’s two main levers in converting paid time to billable time. Under a nine-day fortnight model the worker works nine slightly extended working days over a fortnight and has the 10th day off.

The intended consequence is clear—introducing flexible work options to improve prospects for the attraction and retention of staff, and thereby enhance capacity elasticity —but it is the unintended consequences that need to be thoroughly considered.

How to consider these circumstances

1. Start with the client perspective. It is important to investigate whether clients will take appointments during the extended working day (e.g. earlier in the day before 9:00am, or later in the day after 5:00pm). For instance, appointments later in the day may not appeal to clients with young children because those children might be too tired after a full day at school to really benefit from the therapy, or because the family commence their dinner routine early in the evening. However, early appointments before 9:00am may appeal to clients who have other commitments during regular hours.
2. After considering the client preference, the preference of the workforce comes into play. Some might be keen to extend their working days later than 5:00pm, but reluctant to start earlier because of their own family commitments. However, others might welcome an early start to avoid morning traffic. Also consider what extended opening hours could mean for other staff (e.g. receptionists, practice managers) or for other practical considerations such as in relation to the security and safety of staff.
3. If the client and worker perspectives allow for the nine-day fortnight, it is critical to think through all the potential operational impacts. For instance, consider a therapist with a regular load of four 1-hour appointments per day in a 7.6 hour day. Under a nine-day fortnight the days are extended to 8.44 hours (76 hours a fortnight divided by 9 days), or an increase of 0.84 hours per day. That is clearly not long enough for a whole 1-hour appointment. Consequently, the change will only be viable if the organisation is able to add extra service time to that 0.84 hours to provide sufficient time to deliver an extra appointment.
4. Clearly a minimum of 0.16 hours is needed (1.00 less 0.84), but with the additional face-to-face 1-hour appointment also comes some associated service time. Remember currently each 1-hour face-to-face appointment comes with 0.5 hours of associated service time, of which half is billable and half is not.

The above numbers are summarised in Table 5 with the nine-day fortnight represented in an unchanged service delivery model of four appointments a day. This would mean that the 0.84 extra time a day will become non-productive time and over a fortnight the organisation would lose 5 hours of billable time for each FTE practitioner that chooses to work a nine-day fortnight.

The organisation clearly has to decide how it will convert the hours currently not spent as direct client-facing service time or associated service time to allow for extra service time a day in a nine-day fortnight to make this a viable option for the business to offer its employees.

 **Table 5: Summary of scenario data (removed last column: too much info)**

| **Concept** | **10-day fortnight** | **nine-day fortnight** | **Change** |
| --- | --- | --- | --- |
| 1. Hours per week
 | 76 | 76 | - |
| 1. Days per week
 | 10 | 9 | -1 |
| 1. Available time (hours/day) (A ÷ B)
 | 7.60 | 8.44 | 0.84 |
| 1. Client-facing service time (hours/day)
 | 4.00 | 4.00 | - |
| 1. Associated service time (hours/day) (D x 0.5h)
 | 2.00 | 2.00 | - |
| 1. Productive time (hours/day) (D + E)
 | 6.00 | 6.00 | - |
| 1. Non-productive time (hours/day) (C – F)
 | 1.60 | 2.44 | 0.84 |
| 1. Non-billable time (hours/day) (E x 50%)
 | 1.00 | 1.00 | - |
| 1. Billable time (hours/day) (F – H)
 | 5.00 | 5.00 | - |
| 1. Billable time per fortnight (I x B)
 | 50.00 | 45.00 | -5 |

The response options available

The following response options vary in what type of time is reduced to accommodate the additional appointments:

1. Reduce non-productive time by 0.66 hours a day (0.16 + 0.5 hours) to accommodate the additional 1-hour appointment and half an hour associated service time.
2. Reduce associated service time by 0.16 hours a day to accommodate the additional 1-hour appointment and divide the remaining associated service time by five instead of four appointments. This results in reduced associated service time per 1-hour appointment from 30 minutes to 22 minutes.
3. Only add an extra appointment every 2nd day, by reducing non-productive time on those days.
4. Reduce both non-productive and associated service time to allow for an extra appointment a day including associated service time less than 30 minutes e.g. 24 minutes.

Calculating the options

There is some complexity to the calculations required to analyse these options. To begin with, Option 3 cannot be analysed over a single day because the pattern takes two days to complete, so all the options need to be considered over two days. It is also critical to acknowledge the characteristics of each option in relation to the type of time (either associated service time or non-productive time) that is compromised to accommodate additional appointments.

The summary results for Options 1 to 4 are presented in Table 6. In the case of Option 4 we decided to reduce associated service time per appointment to 24 minutes and non-productive time as required to allow for an extra appointment per day, but numerous combinations for reducing non-productive and associated time are possible. In any case Options 2 and 3 represent the extremes of the range of results that could be expected.

**Table 6: Summary results of analysing scenario options 1 to 4**

| **Data** | **Current service delivery model** | **Option 1:Add an appointm’t per day by reducing non-productive time** | **Option 2: Add an appointm’t per day by reducing associated service time** | **Option 3: Add an appointm’t every 2nd day by reducing non-productive time** | **Option 4:****Add an appointm’t per day by reducing non- productive and associated service time** |
| --- | --- | --- | --- | --- | --- |
| Day 1 | Number of 1-hour appointments | 4 | 5 | 5 | 4 | 5 |
| Associated service time per appointm’t | 0.50 | 0.50 | 0.37 | 0.50 | 0.40 |
| Day 2 | Number of 1-hour appointments | 4 | 5 | 5 | 5 | 5 |
| Associated service time per appointm’t | 0.50 | 0.50 | 0.37 | 0.50 | 0.40 |
| Available time\* | 76 | 76 | 76 | 76 | 76 |
| Client-facing service time\* | 40.00 | 45.00 | 45.00 | 40.50 | 45 |
| Associated service time\* | 20.00 | 22.50 | 16.60 | 20.25 | 18 |
| Non-productive time\* | 16.00 | 8.50 | 14.40 | 15.25 | 12.96 |
| **Billable time\*** | 50.00 | 56.25 | 53.30 | 50.63 | 54.04 |

\* All time expressed as hours per average fortnight.

The implications (both positive and negative) of the possible responses

* All other things being equal, if billable time in an average fortnight decreases as in the nine-day fortnight in Table 5 then the change is probably not financially viable.
* Reducing the non-productive time to the level necessary to accommodate an extra appointment (including the associated service time)—Option 1—leaves less than an hour of non-productive time a day. This is potentially not enough to keep professional development, supervision, team meetings etc. at a level needed to keep up the quality of service and the wellbeing of staff.
* Reducing associated service time and consequently non-billable time—Option 2—could also negatively impact service quality and leave very little time for structural and behavioural utilisation constraints.
* An extra appointment every 2nd day—Option 3—would deliver slightly better billability than the current service delivery model via a slight reduction in non-productive time, however this analysis does not consider the costs of transitioning to the nine-day fortnight or managing the more complex client scheduling.
* It is potentially possible to reduce productive time and associated service time in such a mix that maintains both sufficient non-productive time and service quality. The proposed changes to the service model in Option 4 should be discussed with staff and tested before introducing these or any other kind of change to non-productive and associated service time. If reasonable adjustments can be found then there is a chance to make the change to a nine-day fortnight a viable option.

How to measure performance

There will be non-financial and financial benefits of putting flexible working arrangements in place (for instance, higher retention could improve service quality as well as decrease recruitment costs). However, these benefits should not be considered without first undertaking a thorough analysis of the productivity and utilisation considerations, in the context of the relevant service delivery model.

Key performance indicators for tracking the impact of the shift to a nine-day fortnight could be e.g. take-up of appointments outside of regular business hours by current and new clients, client satisfaction, take-up of nine-day fortnight by staff, staff satisfaction, retention rates, actual non-productive and associated service time, billable time.

Appendix A: Tools

New information requirements—in this case, information to support decision-making in relation to the workforce—inevitably require new or revised systems and processes (for instance, in earlier sections there has been discussion about timekeeping). The specific changes that may be required to an organisation’s primary systems[[11]](#footnote-11) and processes are beyond the remit of this guide, but a valid generalisation for small and medium sized organisations might be that they will benefit from having some additional tools available outside of the primary systems, at least until such time as there is investment in those primary systems to ‘mainstream’ the new requirements.

NDS Costing and Pricing Tool

The Costing & Pricing Learning Program website (http://www.cplp.nds.org.au) contains several tools, guides and resources to assist organisations undertake activity-based costing under the NDIS.

Version 4.0 of the NDS Costing and Pricing Tool contains additional functionality specifically designed to reflect some of the key concepts discussed here:

* Service delivery model—absolute clarity around the Services being offered and their labour requirements
* Productivity—the extent to which Available Time is applied to delivering Services
* Utilisation—the extent to which Productive Time is converted to Billable Time.

This Tool can be used by any human services organisation to:

* Calculate unit costs for services;
* Calculate target unit prices for services; and
* Calculate the gaps between target unit prices and achievable unit prices, and the impact on the organisation’s overall financial performance.

Dashboard Report

In environments where customer responsiveness is crucial, the performance of frontline teams is instrumental to the competitive advantage of the organisation. Tracking this performance and reporting it back to these teams in such a way that the team’s performance can be discussed in quite explicit terms (that is, recognising the unique individuals in the team) in team meetings enables teams to reflect on their practice and consider improvements. An aid to such discussions is the dashboard report—a highly visual single-page report illustrating the performance of team on a small number of key metrics.

This Guide is accompanied online by an Excel Template that produces a dashboard report, an example of which is shown in Figure 5: a weekly style report designed to focus on just three performance areas considered key for the team.

While the style of the charts is fixed, the data being represented can be customised. If not fit for purpose as is, the Template at least provides a structure and some chart styles that can be emulated by an organisation keen to build its own templates.

**Figure 5: Example dashboard report**



In this example, the performance areas are:

1. Team hours per week—actual service hours delivered by all support workers in the team compared to target service hours. This is a key indicator for the financial viability of the team.
2. Support worker capacity—the average hours worked per support worker (indicated by the needle) against the average preferred number of working hours (indicated by the coloured bars). The preferred number of working hours is information that would be obtained from a periodic survey of the team members. This is an important indicator for tracking team well-being and utilisation.
3. Service quality—actual service quality achieved, where the metrics of ‘quality’ and the definitions of green (high), amber (moderate) and red (low) performance will be those used across the whole organisation. This key indicator should capture the client perspective of the team’s performance.

This dashboard has been reconstructed, with permission, following tools used by Care and Share Associates (CASA) in the UK. CASA does not work on the basis of self-directed teams, but is a worker cooperative where the staff make a range of financial and operational decisions about the organisation. For this reason it was felt that transparent, simple communication about key operational indicators was critical to staff participation and sound decision-making.

1. http://www.baxterlawley.com.au/ [↑](#footnote-ref-1)
2. ‘Final Report of Pricing Joint Working Group’, NDIA and NDS joint publication, undated but circa 2014, and ‘NDIA report on the methodology of the efficient price’, NDIA, 18 July 2014. [↑](#footnote-ref-2)
3. *NDIA report on the methodology of the efficient price*, 18 July 2014, p. 3. The report describes this formula as a “direct staff utilisation rate” rather than client-facing time ratio, however the results quoted tie with those so reported in *NDIA/NDS Final Report of Pricing Joint Working Group*. [↑](#footnote-ref-3)
4. *NDIA/NDS Final Report of Pricing Joint Working G*roup, pp. 12-15. [↑](#footnote-ref-4)
5. Only the data for ‘Assistance self-care – individual’ is presented. [↑](#footnote-ref-5)
6. This presentation corrects for an error in the original report. [↑](#footnote-ref-6)
7. *NDIA report on the methodology of the efficient price*, 18 July 2014, p. 4. Supervisor span of control, when referred to by a single number, typically represents the number of FTE the supervisor supervises so will generally be a number greater than 1. When NDIA report the result as a ratio (e.g., “1:15”) this is to be read as “1:[result]” and not as a fractional result produced by the formula. [↑](#footnote-ref-7)
8. NDIA/NDS Final Report of Pricing Joint Working Group, pp. 14-15. [↑](#footnote-ref-8)
9. O'Gorman, Robert, "Upheavals in the Ministry of U.S. Catholic Education and the Effect on Catholic Identity: Models from the 19th Century Catholic Schools and 21st Century Catholic Hospitals" (2013). Garaventa Conferences. Paper 2. [↑](#footnote-ref-9)
10. [↑](#footnote-ref-10)
11. Systems used to capture, manage and report the primary data types used in a service provider – financial data, payroll data, client schedules, staff rosters and the like. [↑](#footnote-ref-11)