CHAPTER 4

COORDINATED CARE TRIALS

4.1 This chapter discusses the evolution and development of the Coordinated Care Trials and the effectiveness of the trials in achieving better health outcomes for clients and in improving service delivery. The purpose of the Coordinated Care Trials is to test whether multi-disciplinary care planning and service coordination leads to improved health and well-being for people with chronic health conditions or complex care needs. Funds pooling between Commonwealth and State/Territory programs was trialed as a means of providing funding flexibility to support this coordinated approach to service delivery.[1]

Development of Coordinated Care Trials

4.2 The Coordinated Care Trials were developed in response to a Council of Australian Governments endorsed reform agenda in April 1995 that sought to meet Australia's health care needs in more appropriate ways while managing health expenditures more effectively.

4.3 The then Department of Human Services and Health called for expressions of interest in September 1995 to establish trials that would develop and test innovative service delivery and funding arrangements. Nine trials were approved by the Commonwealth and clients were recruited from July 1997. Due to the complexity of the design phase, slower than expected rates of recruitment and developments within the health system that affected the trials and necessitated changes to their design, the scheduled end date for the trials was extended to 31 December 1999.[2]

The coordinated care model

4.4 The coordinated care model consists of:

- a trial sponsor (such as an Area Health Service or Division of General Practice) which is contracted to Commonwealth and State governments to manage the trial;
- a funding 'pool' which combines funds drawn from a range of Commonwealth and State health care programs such as the MBS, PBS, Home and Community Care Program and hospital funding. These funds can be used to buy any services for individual patients considered appropriate;

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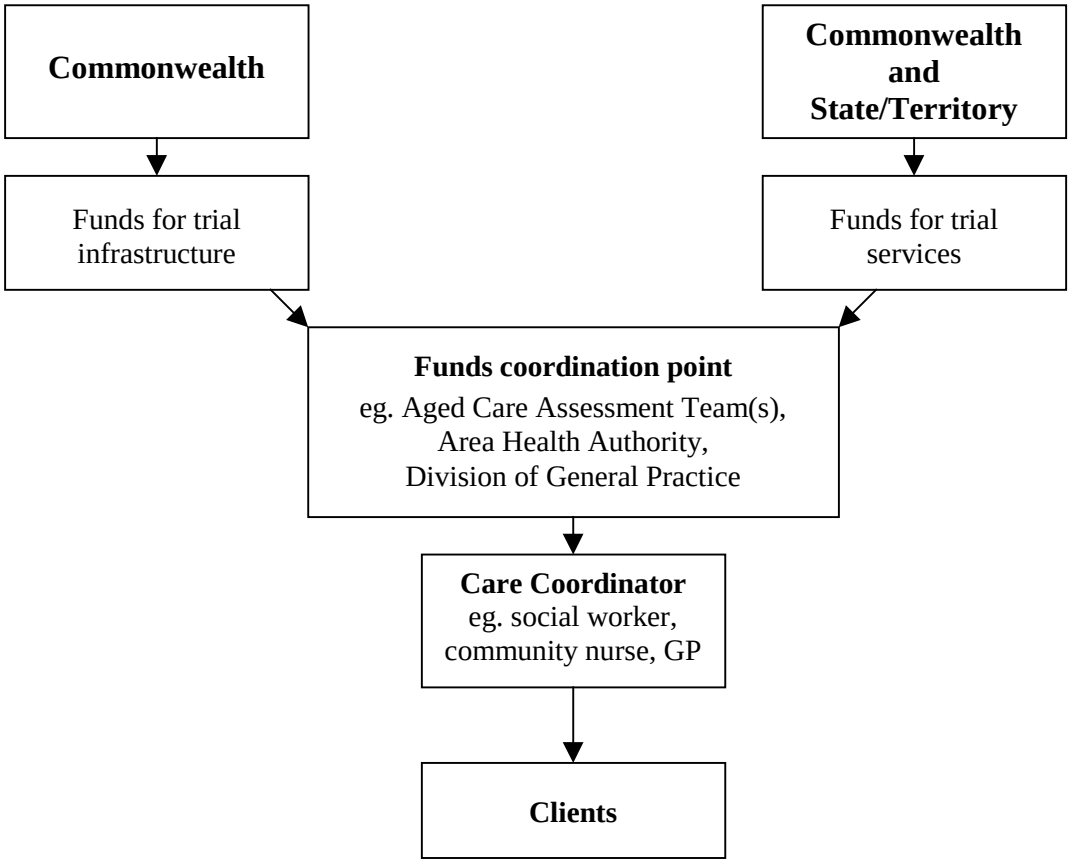
1 Submission No.38, p.22 (DHAC).

2 DHAC, *The Australian Coordinated Care Trials: Interim National Evaluation Summary*, September 1999, (referred to as the Evaluation Report), p.2.

- a care coordination process which can be undertaken by a person (a local GP, a community nurse or designated coordinator), or a service (such as an Aged Care Advisory Team); and
- a defined client group (usually people with high care needs with a particular diagnosis or condition, or those with a range of chronic illnesses). [3]

4.5 The organisational and funding arrangements for the trials are shown below.

Figure 4.1: Organisational arrangements for trials



Source: Parliamentary Library, *Coordinating Care in an Uncoordinated Health System,* May 1999, p.5.

4.6 The primary purpose of the trials was to develop and test different service delivery and funding arrangements, and to determine the extent to which the coordinated care model contributes to improved client outcomes; better delivery of services which are individually and collectively more responsive to clients' assessed needs; and more efficient ways of funding and delivering services.[4] As noted above,

3 Parliamentary Library, *Coordinating Care in an Uncoordinated Health System*, Current Issues Brief No.11, 1998-99, p.4.

4 Submission No.38, p.24 (DHAC).

the Commonwealth and the States pooled their funds for health and community services for each of the trials' participants. Infrastructure costs, relating to costs associated with IT systems, office accommodation and evaluation costs were in some cases shared between the Commonwealth and the States and in other cases were funded solely by the Commonwealth. Although initially considered for inclusion, residential aged care programs, such as nursing homes and hostels, were excluded as the funding could not be easily transferred into the pool because these services are often privately operated.[5]

4.7 Each trial had its own pool that it had to manage in order to provide the best care possible for its clients. The amount of money placed in each pool was based on an estimate of what would otherwise have been spent on services used by clients who were participating in the trials. Once an estimate for a trial client's needs for a particular service was calculated, that is, their needs were they not to enter the trial, these funds were typically notionally allocated to the trial and funds transferred monthly. Providers then billed the trial, or in the case of the MBS and PBS, the Health Insurance Commission, and funds flowed between the trial and the providers.[6] The following table shows the fund pool income for each trial by item.

Table 4.1: Coordinated Care Trials: fund pool income

	Care 21	Care Net	Care Plus	Care Works	Health Plus	Linked Care	North Eastern	Southern HCN	TEAM Care
MBS income	507 171	2 068 893	1 174 402	593 479	2 487 751	1 003 427	625 963	2 545 408	926 674
PBS income	487 197	1 825 086	763 966	502 342	1 544 598	878 971	505 600	1 164 850	731 454
DVA income	194 466	844 587	0	614 198	0	511 675	310 033	0	894 696
Hospital income	1 669 054	3 086 322	1 526 741	3 066 280	4 563 630	2 287 458	1 047 946	3 862 957	225 000
HACC income	437 500	247 122	531 088	585 353	481 685	985 883	496 888	0	0
RDNS income	267 905	0	0	152 459	638 512	683 753	219 435	53 973	0
Other income	0	0	0	0	0	71 738	0	0	0
Total	3 563 293	8 072 010	3 996 197	5 514 111	9 716 176	6 422 904	3 205 865	7 627 188	2 777 824

Source: DHAC, *The Australian Coordinated Care Trials: Interim Technical National Evaluation Report,* 1999, p.122.

4.8 Each client in a trial had a care coordinator who worked with the client to develop a care plan. The care coordinator then drew on money from the funding pool

5 Current Issues Brief No.11, p.6.

6 Current Issues Brief No.11, p.6.

to buy the full range of services set out in the care plan. The actual process of care coordination was open to the trials to determine. The care coordination function incorporated the assessment of clients, care planning process and care plan implementation, monitoring and review. The three main models were:

- Model 1: the GP approach – under which the client's GP undertook all tasks associated with the care coordination role;
- Model 2: the GP care coordinator with the service coordinator approach – under which the GP functioned as the care coordinator and was supported by a service coordinator who acted as an agent or organiser for the GP with various delegated tasks such as implementation of the care plan through the arrangement of services;
- Model 3: the non-GP care coordinators approach – under which the tasks were undertaken by specifically designated coordinators who were not GPs.[7]

4.9 While some trials adopted one of these approaches, others used a combination of approaches.[8]

4.10 There were nine general trials operating in 5 States and the ACT. The Trials were: North Eastern Health Care Network (Vic), Southern Health Care Network (Vic), HealthPlus (SA), Care 21 (SA), Care Net Illawarra (NSW), Linked Care (NSW), TEAMCare (Qld), Careworks (TAS), Care Plus (ACT). The nine trials recruited a total of 16 533 clients with complex and chronic health needs. While the characteristics of the target population varied slightly across the trials, clients were predominantly older persons, aged over 65 years of age, who were socio-economically disadvantaged. The trials had over 2000 GPs involved in their operation.[9] The main features of the general trials are shown below.

7 Submission No.38, p.23 (DHAC).

8 Evaluation Report, p.17.

9 Evaluation Report, p.viii.

Table 4.2: Coordinated Care Trials – main features

Trial name	Location	Client Eligibility Criteria		Target population
		Age	*Other Criteria*	
Care21	Northern suburbs of Adelaide, SA	65+ (55+ ATSI)	Complex health care needs, multiple community/health service usage	1200
Care Net	Illawarra area of NSW	65+ (45+ ATSI)	At risk of falling and/or needing multiple services	1800
Care Plus	ACT	All	Complex care needs, high users of health services	2400
Careworks	Southern Tasmania	65+	Complex care needs requiring multiple health services	1200
Linked Care	Hornsby & Ku-ring-gai areas of Sydney, NSW	All	Chronic/complex care needs including elderly and people with disabilities	1500
North Eastern HCN	North-eastern suburbs of Melbourne, VIC	65+	Diseases/disabilities typical of older age (eg stroke, respiratory, cardiac)	1600
HealthPlus	Central, southern and western suburbs of Adelaide and the Eyre Peninsula, SA	18+	Condition specific project criteria (eg diabetes) or complex, chronic care needs	6000-8000
Southern Health Care Network	Outer suburbs of south-east Melbourne, VIC	All	Greater than $4000 hospital episode(s) over 2 year period	2500-3000
TEAMCare Health	Northern suburbs of Brisbane, QLD	65+ (50+ ATSI)	Multiple service needs	3000

ATSI – Aboriginal and Torres Strait Islanders

Source: DHAC, *The Australian Coordinated Care Trials – Background Trial Descriptions*, 1999, pp.9-11.

Aboriginal and Torres Strait Islander trials

4.11 In addition to the general trials, there are trials for Aboriginal and Torres Strait Islander people. The Aboriginal Trials have a somewhat different focus, arising from the importance of comprehensive primary health care and community involvement in addressing health needs of Aboriginal and Torres Strait Islander people.

4.12 The main purpose of Aboriginal trials is to develop and assess innovative service delivery and funding arrangements that are based upon community and individual care coordination through pooling of funds from State and Commonwealth agencies. Aboriginal Trials share many of the features of the general trials but there

are some important differences. Most are funded in respect of an entire community rather than chronically ill individuals. MBS and PBS equivalent contributions to the funding pool are at national average rates rather than an estimate of what would otherwise have been spent on services, in recognition of historically very low levels of MBS and PBS usage by Indigenous clients. Greater emphasis is given to empowering communities as well as individuals to take control of their own health needs. All Aboriginal trials are implementing generic and individualised care plans with their client populations as well as initiating new population health programs dealing with issues such as diabetes and antenatal care.[10]

4.13 There are 4 Aboriginal Coordinated Care Trials in 2 States and the Northern Territory: Wilcannia (Far West Ward Aboriginal Medical Service) (NSW), Tiwi Islands (Tiwi Health Board and Territory Health Services) (NT), Katherine West (Katherine Health Board, Territory Health Services) (NT), Perth/Bunbury (a two site trial, Derbarl Yerrigan Health Service, South West Aboriginal Medical Service, Health Department of Western Australia) (WA).[11]

4.14 While the formal phase of the Aboriginal trials is finalised, the trials will continue to receive funding by the Commonwealth and States/Northern Territory during 2000 under transitional arrangements after which the future of the trials will be determined.

Additional Coordinated Care Trials

4.15 The 1999–2000 Federal Budget allocated $33.2 million to additional coordinated care trials over the next four years to focus on people with chronic or complex care needs, with a particular emphasis on older people who are chronically ill or disadvantaged.[12]

4.16 As with the current coordinated care trials, the additional trials will be developed in collaboration with key stakeholders, including State and Territory Governments, the medical profession and other service providers, the non-government and charitable sectors, and the private health sector. On 4 August 1999, all Australian Health Ministers endorsed strategic directions for the additional coordinated care trials.

4.17 The primary purpose of the additional trials is to build on the lessons of the current Coordinated Care Trials, and further develop and test different service delivery and funding arrangements. The trials are expected to run for three years. Trials participating in the first round will have the opportunity to compete in the second round of trials.

10 Submission No.38, p.23 (DHAC).

11 Submission No.38, p.23 (DHAC).

12 Submission No.38, p.24 (DHAC).

Evaluation of the trials

4.18 As noted previously, the aim of coordinated care is to achieve better health and well-being for clients within existing levels of resources (except for Aboriginal trials where increased resources can also be a feature). The purpose of the trials is to test different approaches to achieving this. Given this aim, a comprehensive evaluation is a critical part of the program.[13] Major interim evaluation reports on the general trials were published in September 1999 and a final evaluation report is due in February 2001.[14] An evaluation report on the Aboriginal trials is due in December 2000.

4.19 The Department of Health and Aged Care (DHAC) stated that for the Aboriginal trials, all have implemented public health and health service delivery initiatives targeting priority needs of communities, with the aim of improving health outcomes. There are early signs that improvements in Indigenous health indicators can be achieved when services have sufficient resources to provide a sound base for primary health care and where local communities take a strong role in developing and delivering services. For example, at one of the trials, the child immunisation rates have reached very high levels for the first time. At another trial, preliminary data indicate a significant increase in access by Aboriginal women to antenatal care services.[15]

4.20 Evidence to the Committee during the inquiry, however, indicated some problems with the trials. The Australian Medical Association (AMA) (NT Branch) argued that while in some communities the trials are working well, including the Tiwi trial, there were several problems 'on the ground' with these trials in relation to the availability of doctors in Aboriginal communities and accountability in funding arrangements. AMA (NT) stated that:

> …the trials really will not work unless there are more doctors on the ground in these areas…The second thing is there is concern about the transparency of this paying out of funds and where the money is actually going to and how it is being used by the communities or the people who are the gatekeepers for these funds.[16]

4.21 AMA (NT) further stated that the trials are 'fine in terms of identifying unwell Aboriginal people, making sure that they are followed up effectively and in getting the right investigations done, but then it is actually treating these people and making sure that you have done the groundwork, that you have worked out what is wrong with

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13 Submission No.38, p.23 (DHAC).

14 See DHAC, *The Australian Coordinated Care Trials: Interim Technical National Evaluation Report*, 1999; DHAC, The *Australian Coordinated Care Trials: Interim Technical National Evaluation Report-Appendices*, 1999; DHAC, *The Australian Coordinated Care Trials: Interim National Evaluation Summary*, 1999.

15 Submission No.38, p.24 (DHAC).

16 *Committee Hansard*, 24.2.00, p.220 (AMA (NT)).

them and you know what is needed to improve their quality of life. But actually having the doctors on the ground to supervise that and to ensure that happens is another problem'.[17]

4.22 The Northern Territory Branch of the Australian Nursing Federation (ANF) also raised problems with accountability. ANF (NT) noted that while the trials were 'positive' in that they reflected a trend in Aboriginal communities of developing local control of their own health services, the downside was a concern 'about the sorts of people that are attracted to the health boards that have been set up to run those services'. It was argued that there was a need for more Commonwealth scrutiny of the funds that are put into these programs.[18]

Effectiveness of the general trials

4.23 The interim evaluation report of the general trials found that it was too early to conclude definitively that the Coordinated Care Trials have achieved their objectives. The evaluation report stated that the interim findings 'cannot be seen as conclusive, but rather should be used to give direction to future developments in coordinated care'.[19] The report noted that the complex nature of the trials and difficulties with 'data flow, data quality and data completeness, as well as by the diversity of trial populations and processes' made evaluation of the trials difficult.[20] The key findings of the interim evaluation are outlined below.

Client health and well-being

4.24 The evaluation report stated that the interim results of the trials on client health and well-being, hospitalisation, re-admission and length of stay are inconclusive. Available data indicate, however, that care coordination has not led to any significant change in the health and well-being of the trial groups. The evaluation report noted, however, that the data set is incomplete for some trials and that, while the results are not statistically significant, trends suggest that some client groups have experienced some improvements in their physical health status.[21]

4.25 A number of indicators of health and well being were considered in the report, including hospitalisation rates, re-admission rates within 28 days for the same cause, and length of stay in hospital. The results showed that coordinated care had little or no effect on these outcomes, with the exception of one trial that had lower hospital re-admission rates.[22]

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17 *Committee Hansard*, 24.2.00, p.220 (AMA (NT)).

18 *Committee Hansard*, 24.2.00, p.208 (ANF (NT)).

19 Evaluation Report, p.ix.

20 Evaluation Report, p.vii.

21 Evaluation Report, pp.viii, 46.

22 Evaluation Report, p.27. See also *Committee Hansard*, 20.11.00, p.778 (Victorian Department of Human Services).

4.26 Regarding hospitalisation, overall 25 per cent of clients had been hospitalised at least once over the course of the trials, and this proportion was similar in the intervention and control groups. The number of admissions that each person had was also similar for the two groups. The proportion of re-admissions by trial varied considerably, ranging from 6 to 16 per cent. Patients in the intervention group of three trials had a statistically significant higher rate of hospital re-admission than the control group. Only one trial had a statistically lower rate of re-admission in the intervention group. After adjustments for age and diagnosis-related group, these differences were no longer statistically significant, with the exception of one trial that maintained a significantly lower rate of re-admission in the intervention group. Regarding length of stay, while individual trials did show some differences between intervention and control groups, they were not statistically significant.[23]

4.27 Qualitative data were also examined for evidence of the impact of care coordination on client health and well-being. There were indications that some clients experienced an increased sense of security as a result of having access to someone who could help them to negotiate through the complexities of the health system. The perceptions of moderate and high-risk clients were more positive than those of low-risk clients, who tended to see care coordination as a hindrance rather than a help. However, qualitative data were incomplete for some trials.[24]

Provider experiences

4.28 Providers include those involved in the direct process of care coordination or in the delivery of services.

4.29 In relation to GPs, not all were willing to become involved in the trials. Their main concerns were the additional administrative demands placed on them by the trials and a belief that coordinated care would compromise their independence in treating their patients. The GPs involved in the trials had different perceptions depending on the model of care coordination used. GPs undertaking the role of care coordinator had concerns about the time take to complete tasks associated with coordinated care, the training required and the 'time costs' for any benefits gained through the trials. GPs involved in care coordination where the tasks of coordination were shared with others expressed some of these concerns, but were generally more positive.[25]

4.30 Non-GP care coordinators expressed concerns in relation to uneven workloads, their relationship with GPs and the extent of their contribution to service coordination. Service providers differed markedly in their perceptions of the trials. Some found that coordination of care had freed them from case management, allowing

23 Evaluation Report, pp.27-28.

24 Evaluation Report, p.46.

25 Evaluation Report, pp.31-32.

them to focus more on service provision, while others were concerned about increased workloads and reduced resources.[26]

Substitution between services

4.31 An aim of the trials was to promote further opportunities for appropriate substitution between acute and sub-acute and community based services; community based services and residential care; and a range of other community-based services.

4.32 The evaluation report stated that the interpretation of service substitution varied across the trials. While the majority of trials focussed on strategies to reduce hospital admissions, the data do not indicate any effect on the rate of hospitalisation. Due to data limitations it was not possible to establish whether any service substitution had occurred.[27]

Range of services

4.33 The scope of pooling of services can substantially influence the infrastructure costs of a trial. The report noted that trials that pooled less widely than others, for example, those that pooled only hospital, MBS and PBS have not demonstrated differences in their ability to provide care within existing resources. The non-pooling of residential care appears to have had an impact on a number of trials that have anecdotal evidence of having delayed institutionalisation. The risk of cost shifting by trials that pooled narrowly remains – however, there was no evidence of this partly because the data were not available.[28]

Care coordination process

4.34 All trials demonstrated a similar approach to the care coordination process which comprised assessment, care planning, implementation, monitoring and review. How the various components were put into operation varied according to the model of care coordination within which they were placed. In all trials, GPs played a central role, whether in the development of the care plans and/or implementation, monitoring or review. Demand placed on GPs, both as a consequence of the trials or external factors, restricted their capacity in some cases to be fully involved in care coordination. Models in which GPs were supported in their contribution to care coordination, through access to a care or service coordinator, appeared to have been more satisfactory to all those involved in the process.[29]

26 Evaluation Report, pp.32-33.

27 Evaluation Report, p.47.

28 Evaluation Report, p.47.

29 Evaluation Report, pp.48-49.

Financial outcomes

4.35 A 'snapshot' of the financial status of each trial was made, and adjustments made for differences in financial reporting and fund pool estimation. This analysis found diversity in the way that trials allocated start-up and continuing costs, and also in the way that the total costs of the trials were distinguished from running costs. A comparison of trials' total income with total expenditure, found that two trials were significantly in deficit and one trial was slightly in deficit. The report noted that, due to lack of data, conclusions about whether financial decisions were appropriately made and key priorities chosen would need to be considered in the final evaluation report.[30]

4.36 The report noted that there was little evidence of coordinated care having an impact on the average cost or distribution of services. For example, only one trial showed a statistically significant reduction in the average cost of inpatient services. For a number of trials, comparisons between the trial expenditure and the economic benchmark (resources that would otherwise have been used), suggest that there are likely to be gains made from coordinated care.[31]

Lessons from the trials

4.37 The evaluation report noted that several key lessons emerged from the operation of the trials which are outlined below:

- coordinated care – funds pooling offers potential advantages to facilitating care coordination for some, but not all clients. This needs to be set against the considerable human and financial resource costs associated with establishing and effectively managing the funds pool. Improved targeting of people who need care coordination, and the differentiation of care coordination approaches is also likely to be central in maximising the value of coordinated care;
- models of coordinated care – to be effective, coordinated care requires a primary team approach, with GPs playing an important and integral role. There needs to be a more systematic approach to coordinated care in future trials, based on agreed eligibility criteria, better defined target populations and standardised definitions of coordinated care and its processes; and
- role of GPs – given the pivotal role of GPs in continuing care of patients with chronic conditions, the reasons why GPs choose not to participate in the trials and the concerns expressed by participating GPs need to be considered in the planning of future care coordination programs.[32]

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30 Evaluation Report, pp.29, 46-47.

31 Evaluation Report, pp.40-41.

32 Evaluation Report, pp.x-xi. See also *Committee Hansard*, 20.11.00, p.768 (Professor Deeble); *Committee Hansard*, 20.11.00, p.778 (Victorian Department of Human Services).

Future directions

4.38 Some evidence suggested that the coordinated care trials should be broadened in scope and extended in time and coverage.[33] Professor Richardson of the Centre for Health Program Evaluation (CHPE) suggested that the trials could be broadened by extending the target population beyond persons with complex chronic needs to the full population of a region. This would allow preventive services to become a larger part of the model. But a longer time frame would be required to test this type of model.[34]

4.39 Professor Hindle also argued that it would be preferable to 'run a demonstration project for an entire community such the Hunter Valley or the ACT…it has to be a trial of the system as it would operate in the real world and not where people can opt out, and so on'.[35] NSW Health advised the Committee that it is currently conducting a study into the feasibility of introducing a funds pooling arrangement in two or three Area Health Services in that State. Dr Picone from the Department stated that:

> We think our area health services lend themselves more than in some of the other states to allow this to happen because they have been running for over a decade now…They are based on a population of people rather than on a disease [model] because, if we go down the disease model, there is a chance of reinforcing the lack of integration around the care of a human being that we have got. The area health services have responsibility for the care of that population and not just hospital care. Also, we have fairly sophisticated funding arrangements.[36]

4.40 The Coordinated Care Trials evaluation report also stated that extending the length of the trials would increase the likelihood that effects such as reduced rates of hospitalisation would be demonstrated within the time of the trial. The report also noted that extending the trials would also reduce the average cost per client day and improve the trials' financial position, particularly for trials with significant start-up costs.[37]

4.41 Professor Judith Dwyer representing the Public Health Association of Australia argued that what was needed was a 'move on from the second round of the coordinated care trials into some sort of experimentation at the level of what kind of system you need to have in order to deliver integrated or coordinated care, rather than

33 Submission No.46, p.11 (CHPE); Submission No.22, p.3 (Professor Hindle).

34 Submission No.46, Additional Information, 15.3.00 (CHPE).

35 *Committee Hansard*, 21.3.00, p.320 (Professor Hindle). See also Submission No.22, pp.3-4 (Professor Hindle).

36 *Committee Hansard*, 20.11.00, p.757 (NSW Health).

37 Evaluation Report, p.41.

simply looking at it at the patient care level, which is what the coordinated care trials have done'.[38]

4.42 Professor Richardson suggested that another option in relation to the trials would be to cover a more comprehensive range of services and include, for instance, residential care, dental and disability services. He argued that the reason for including residential care is compelling because if care coordination reduces admission to residential care facilities, the benefits of that should flow into the pool. The inclusion of residential care would also increase the size of the pool, as many of the chronically ill are also elderly. Extension to other areas is desirable, as the aim is to break down program barriers and ensure access to care which is appropriate to the health needs of the client group.[39]

Conclusion

4.43 The Committee notes the interim evaluation reports on the coordinated care projects that have been published and the various suggestions made to overcome the problems identified in the initial evaluations. A full picture of the value of coordinated care and the role it may play for specific groups or wider communities has not been possible due to limitations in the data available from these studies. The Committee is disappointed that the data from these initial evaluations is not more complete and that conclusions about the effectiveness of the trials could not be drawn. It is hoped that a more complete assessment of the trials will emerge when the final studies are complete.

4.44 The Committee commends the Government for committing to a second round of Coordinated Care Trials and urges that work continue on developing the most suitable form of coordinated care for Australian circumstances within the framework of Medicare. The Committee believes that better data should be available and collected with the additional trials to allow informed conclusions about the efficacy of these trials to be drawn.

Recommendation 19: That Health Ministers ensure that the additional Coordinated Care Trials be designed to include adequate and appropriate data for collection and analysis to enable informed conclusions about the effectiveness of these trials.

38 *Committee Hansard*, 20.11.00, p.763 (Professor Dwyer).

39 Submission No.46, Additional Information, 15.3.00 (CHPE).