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Intermediate Care Services – what do patients think?

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What do patients think?

- Patients' views of services are frequently assessed using patient satisfaction surveys
- These can be problematic due to:
 - Lack of standardisation = we can't compare services
 - Multiple scores for different aspects of care = we don't know which aspects are the most important
 - Uncertainty about how the results should be used to change services



Conjoint analysis

- A conjoint analysis looks at how patients value a particular service
- In order to do this, the service needs to be broken down into various attributes and each attribute broken down into levels
- Patients are then asked to make a series of pairwise choices between different configurations of service



Configurations for intermediate care used in the conjoint analysis

Levels	Attributes		
	Location	Frequency	Carer
	Home	Once per week	Support worker
	Hospital	Three times pw	Nurse
	Outpatients	Daily	Therapist
	Nursing home	Fifteen times pw	Doctor



Possible example

A
Care in own home, with
Contact once per week, and
A support worker delivering most of your care

B
Care in hospital, with
Contact 7 times per week, and
A doctor delivery most of your care



Sample

- Patients within an intermediate care service
- Recruited by independent researcher after 'referral' by practitioner
- Face-to-face interview at place of care
- 77 interviews



Interview schedule

- Demographics
- Living arrangements
- Level of care
- Therapy Outcome Measures Scale
- EQ-5D
- Two versions, each with different sets of eight pairwise comparisons



Sample description

Characteristic	Type	Proportion (%)
Gender	Male	37.7
Age	<70	9.1
	70-79	37.7
	80-89	48.0
	90+	5.2
Place of care	Home	23.4
	Outpatient/day hospital	75.3
	Nursing home	1.3
Frequency of care	0-1 contacts pw	58.4
	1-7 contacts pw	24.7
	7-14 contacts pw	6.5
	>14 contacts pw	10.4
Principal carer	Support worker	23.4
	Nurse	5.2
	Therapist	67.5
	Doctor	2.6

Regression results (1)

Attribute/level	Coefficient ⁺
Outpatients	-0.39
Hospital	-0.77
Nursing home	-0.95
3 contacts pw	0.02
7 contacts pw	0.03
15 contacts pw	-0.28
Nurse	0.22
Therapist	0.27
Doctor	0.08



Most important



Least important



Moderate importance

⁺ Relative to care at home, once per week with support worker as principal carer

Regression results (2)

Attribute/level	Coefficient ⁺	p-value
Outpatients	-0.39	**
Hospital	-0.77	***
Nursing home	-0.95	***
3 contacts pw	0.02	
7 contacts pw	0.03	
15 contacts pw	-0.28	*
Nurse	0.22	
Therapist	0.27	
Doctor	0.08	

➔ Less preferred as you move from home, to outpatients, to hospital to nursing home

➔ 1-7 times per week equally liked, but 15 times per week disliked

➔ Nurse and therapist most preferred but evidence is not strong

⁺ Relative to care at home, once per week with support worker as principal carer

* = $p < 0.05$, ** = $p < 0.01$, *** $p < 0.001$



Sub-groups relative to overall results

	'Sicker'	'Needier'	'High level of care'
	[EQ5D<0.5]	[Any TOMS≥3]	[LoC>1]
Location	Greater dislike of hospital	Greater dislike of hospital	Less dislike of outpatient care
Frequency	Less dislike of very intensive care	-	-
Carer	Greater preference for nurse care	Greater preference for support worker	Greater preference for support worker



Rankings of care packages

Location	Frequency	Principal carer	Rank
Home	7 pw	Therapist	1
Home	3 pw	Support worker	11
Outpatients	7 pw	Therapist	15
Outpatients	1 pw	Nurse	20
Home	15 pw	Doctor	21
Outpatients	15 pw	Doctor	37
Residential home	1 pw	Therapist	43
Hospital	15 pw	Nurse	52
Residential home	15 pw	Doctor	60
Hospital	15 pw	Support worker	64



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Residential home	15 pw	Doctor	60
Hospital	15 pw	Support worker	64



Limitations

- Generalisability
- Limited number of skills mix issues addressed
 - Original design included number of different staff types as a fourth attribute
- Conjoint analysis produces odd combinations
 - 19% considered the comparisons as 'not sensible' or 'made no sense'
- Profession of principal carer may not be the most appropriate way of describing their role
 - Type or perceived relevance?



What have we learnt?

- Patients are able to make quite complex decisions about the care package that they want to receive
 - 27% found the questions 'hard' or 'very hard'
- Place of care is most important but not to the exclusion of other factors
- Very frequent care not generally well liked
- Nursing care is important to sicker patients



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Delivering Intermediate Care and Community Therapy Services – what's it all going to cost?

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Impact of workforce on costs of care

- Part of the same prospective study described previously
- Data were available for 1913 patients across 20 intermediate care teams
- Descriptive analyses of teams and patient sub-groups
- Explanatory analysis of team size, skill mix and workforce cohesion
- Costs based on staff time only

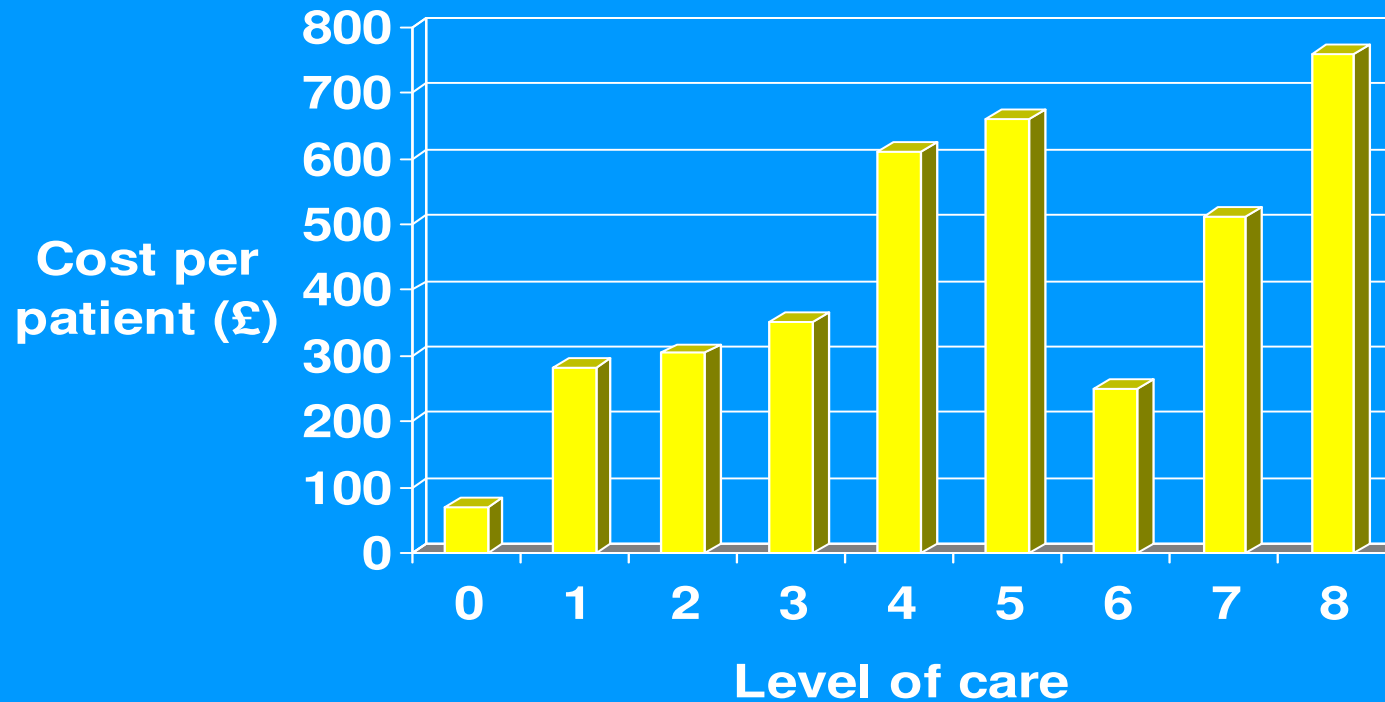


Resource use

- Mean number of face-to-face contacts 3 to 65 across teams
- Mean contact time 2.4 hours to 110.5 hours across teams
- Mean length of episode 1 day to 141 days
- All measures of resource use increased when moving from level of care 0 (client does not need intervention) through to 5 (client needs intensive rehabilitation)



Cost and level of care





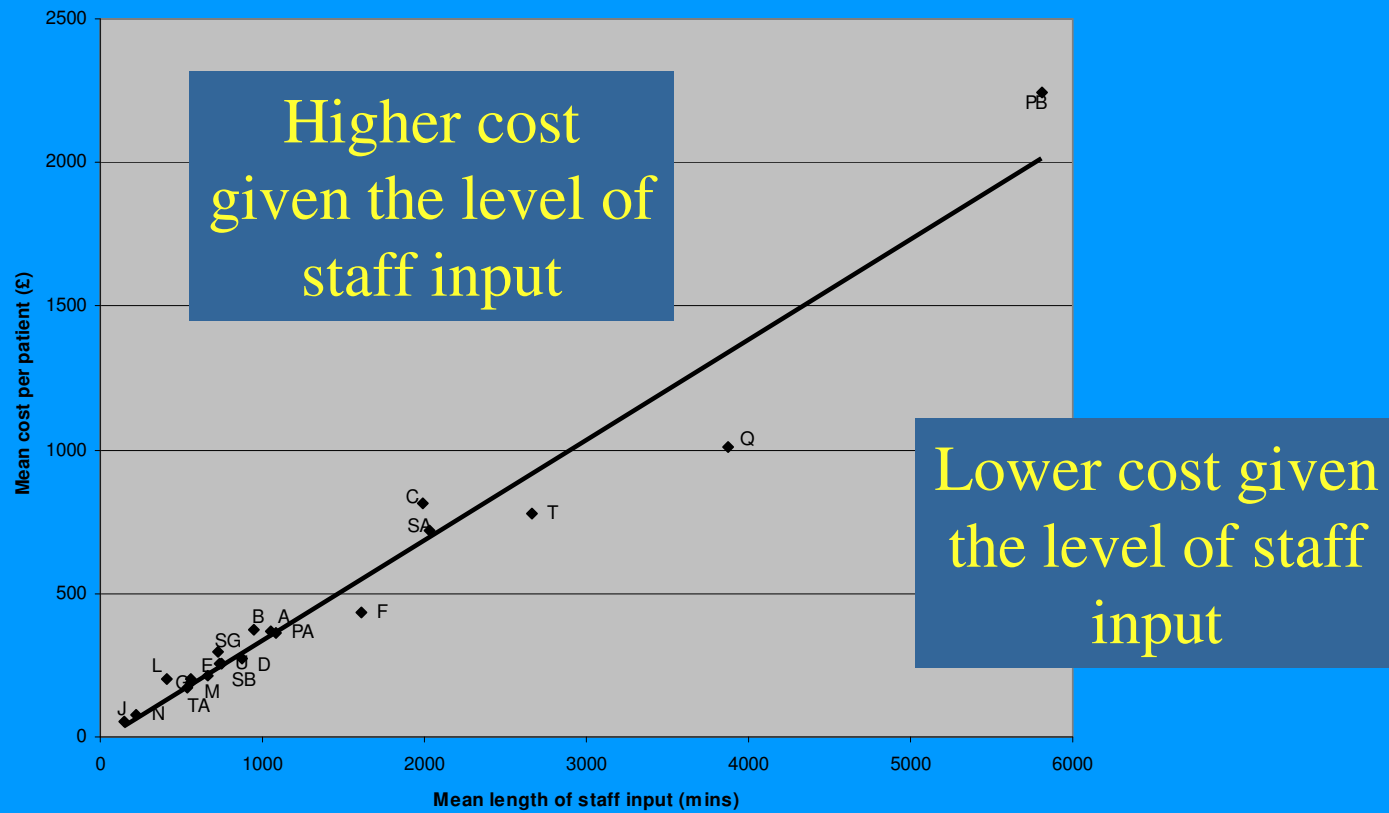
Sample of teams and data

Team	Number of observations	Number of face-to-face contacts	Total contact time, mins	Length of episode, days	Staff costs, £s
	n	Mean	Mean	Mean	Mean
T	42	37	2662	22	775
G	118	8	969	32	348
D	51	17	876	53	274
Q	35	60	3878	47	1011

What questions do you consider to be important?



Relationship between staff input and cost



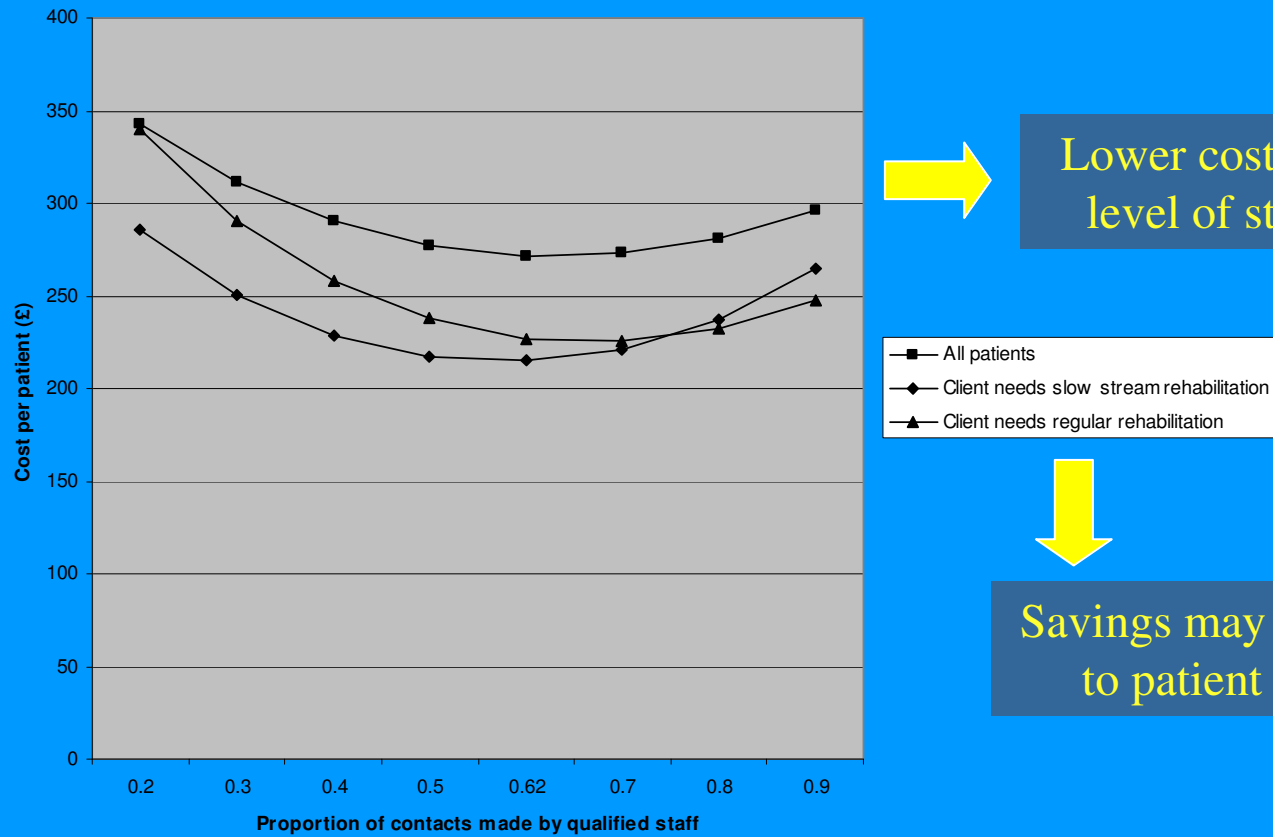


Explanatory analysis

- Positive relationship between cost per patient and age
- Positive relationship between cost per patient and size of team
- 'u' shaped relationship between cost per patient and proportion of qualified staff
- No clear relationship with respect to patient TOMS



Importance of skill mix



Lower cost given the level of staff input

Savings may vary due to patient needs

Workforce cohesion

	Cost	ln(cost)
Team autonomy	7.312**	0.000
Team integration	-3.086	-0.009**
Team quality	16.099**	0.018
Team working	-2.947	-0.002



Greater
autonomy and
quality
increases cost



Greater
integration
reduces cost



Limitations

- Clear relationships found but differed between patient groups
 - What is the 'best' size or skill mix?
- Costs excluded capital costs and overheads
- Were unable to describe 'multidisciplinarity' adequately to assess its impact on costs
- Causality
 - Will improving integration reduce costs? How do you do it?



What have we learnt?

- Patients characteristics have an impact on costs although this is largely determined by age
- Service characteristics impact on patient costs
- Team characteristics impact on patient costs
 - Potential savings associated with more qualified staff
 - Greater costs associated with greater number of staff types (not shown)
- Workforce cohesion impacts on patient costs