



Incentives in Health Care

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Introduction and Plan

- How we fund services determines:
 - Incentives for all stakeholders
 - System-wide effects of incentives
 - Flow of patients between different types of care
- Providers, behavioural variables and reimbursement systems
- Impact of alternative funding arrangements on behavioural indicators
- Congruency among payment types: system-wide analysis

Table 1

Supply behaviour indicators and alternative reimbursement systems for major health care sectors

TYPE OF SERVICE	INDICATOR	REIMBURSEMENT SYSTEMS
Physician services-primary care	Number of procedures	Fee for service Capitation Salary Mixed salary plus volume adjustment
Physician services-specialty	Number of Procedures	Fee for service Salary
Inpatient care	Case mix Cost per weighted day Admissions Length of stay	Global budget Case mix adjusted global budget
Outpatient care	Number of cases Cost per weighted case	Global budget Case mix adjusted fee per case
Emergency care	Number of emergency visits	Global budget Flat fee per visit
Outpatient clinics	Number of visits	Global budget Flat fee per visit
Outpatient pharmaceuticals	Number of prescriptions	Price per prescription Price per reference drug
Nursing home care	Number of cases Case weighted days	Flat fee per day Case mix adjusted fee per day
Home care professional	Number of cases Number of visits Number of hours	Fee per visit Fee per hour
Home care – other	Number of cases Number of visits Number of hours	Fee per visit Fee per hour

Source: Adapted from Jacobs, Philip (1997), « Chapter 14: Congruence of Incentives », in Hollander, M.J.R., Deber & P. Jacobs (Eds.), A Critical Review and Analysis of Health Care Related Models Resource Allocation and Reimbursement in An Ontario Context, (mimeo), CPRN, Ottawa.

Supply Behaviour Indicators (Table 1)

- Key “behavioural” indicators:
 - *Physicians*: no. of procedures performed
 - *Inpatient care*: cost per weighted day, case mix, admissions and LOS
 - *Outpatient care*: no. of procedures (by type and weighted cases): emergency patients can be referred to hospital for other forms of ambulatory care or home care
 - *Nursing home care*: case-weighted days and no. of cases: cases can be discharged to variety of providers
 - *Home care*: no. of hours and visits

Alternative Reimbursement Systems (Table 1)

- Different types of reimbursement systems:
 - *Physicians*: normally on F-F-S basis (may be global caps)
 - Primary care: can also be on capitation (HSO) or global budget (CHC)
 - Specialty care: F-F-S or salary
 - *Inpatient care*: global budget or case-mix adjusted global budget
 - *Outpatient surgery*: global budget or case-mix adjusted basis: emergency care on global basis or flat fee
 - *Nursing homes*: flat fee per day or case-mix adjusted fee per day: also possible to use flat out-of-pocket fees
 - *Home care*: on a per visit or an hourly basis

Impact of Funding on Behaviour

- Effect of funding on behaviour best understood in “relative context”:
 - F-F-S may induce “more” services, but in terms of what?
 - Important to be explicit
- *Primary physician care*
 - F-F-S is reference payment type compared to salary & capitation
 - F-F-S induces more services
 - Comparing capitation with F-F-S
 - Providers on salary
 - Overall, capitation will result in more services than under salary, but less than under F-F-S
- *Specialist physician care*
 - Influence of incentives on supply of services will be similar

Impact of Funding on Behaviour (continued)

- *Inpatient hospital care*
 - With case-mix funding, incentives exist for hospitals to have lower stays and higher case mixes
- *Outpatient care*
 - Hospitals on case-mix adjusted fee per case have incentives to increase severity and number of case done on OP basis
 - Re: emergency and OP clinic care, hospitals on flat per diem have incentive to treat more patients than those paid on global budget

Impact of Funding on Behaviour (continued)

- *Nursing homes*

- *If paid on case-mix adjusted fee per day, incentive exists to increase their case mixes relative to those paid on flat per diem*

- *Home care*

- *If paid on per visit basis, incentive exists to provide shorter amounts of services per visit, and to return more often to individual patients during a day, relative to agencies paid on per hour basis*

Table 2

Spillover Effects of Alternative Combinations of Incentives

TYPE OF SERVICE AND TYPE OF FUNDING	IN COMBINATION WITH: CASE MIX WEIGHTED FUNDING FOR INPATIENT HOSPITAL CARE
Primary care physician – fee for service	Tendency for expansion of weighted hospital cases. Both physicians and hospitals are encouraged to treat more patients under these funding systems.
Outpatient surgery – global budget	Tendency to treat surgical cases on an inpatient rather than an outpatient basis. There is no incentive to expand outpatient surgery service, while inpatient incentive system rewards more cases.
Outpatient surgery – weighted cases	Substitution between inpatient and outpatient will depend on the relative weightings assigned to cases in each of the two types of services. Both funding systems encourage an increase in case volume.
Nursing home care – weighted per diem	Transfer of patients from hospital to nursing home is encouraged. The nursing homes have incentives to treat higher weighted cases, but there is no clear incentive to admit new patients (relative to continuing to treat existing ones).
Home care – flat rate per visits	Early discharge of hospital patient is encouraged, but the home care agency does not have the incentive to admit new patients (as opposed to continuing to treat existing ones).

Source: Jacobs, Philip (1997), « Chapter 14: Congruence of Incentives », in Hollander, M.J.R., Deber & P. Jacobs (Eds.), A Critical Review and Analysis of Health Care Related Models Resource Allocation and Reimbursement in an Ontario Context, (mimeo), CPRN, Ottawa.

Congruency Among Payment Types (Table 2)

- Spill-over effects important to achieve system-wide efficiency
- Focus: how incentives in various sectors mesh with one another
- Examine how incentives in IP hospital sector are consistent/inconsistent with other sectors
- Table 2 shows incentives for five specific payment systems and types of care

Congruency (continued)

- Two general principles to consider:
 - Discussion assumes fee payable will be sufficient to cover costs of care, and varying fees don't vary in their profitability
 - Each basis of payment has its own specific effects on supply behaviour, and will cause spillover effects to other providers
 - Thus, congruency of incentives between sectors will depend on whether incentive effects in the different sectors are congruent with one another

Congruency (continued)

- Inpatient case weighted budgets induce hospitals to increase their case mix and admissions, but reduce LOS: compare these incentives with those of other sectors (in Table2)
 - F-F-S encourages expansion of services, i.e., more hospitalizations: *F-F-S and case mix IP hospital funding are congruent*
 - Next, relate incentives in global budgets for OP surgery with those in case mix IP funding
 - Under OP surgery funding incentive exists to restrict no. of OP procedures, while under case mix IP funding incentive exists to increase IP admissions: hence, there will be shift of surgery cases to an IP basis
 - Third example is OP surgery on a weighted case basis (where IP care funded on case weighted basis as before)
 - These two incentive systems aren't congruent ... both encourage expansion of services, and which service has stronger incentive depends on funding rate

Congruency (continued)

- Fourth example is weighted per diem payment for nursing home care
 - Encourages nursing homes to have more and higher severity patient days: no incentive to take more cases
 - Case mix weighted hospital system encourages hospitals to shorten LOS, and since nursing homes may or may not take more and higher severity admissions, congruency on incentives isn't clear



Congruency (continued)

- Fifth example focuses on flat home care payment per visit
 - Encourages more visits but doesn't necessarily encourage more home care admissions
 - Congruency of this system with case weighted IP system isn't clear

Conclusions

- System-wide efficiency occurs when entire episode of care is done in least-cost milieu
 - Underscores importance of incentive congruence
- *However*, incentive congruence and efficiency are *not* identical
 - *Indeed, incentive congruence can lead to inefficiencies*, e.g., if hospitalization is not desirable ...

Conclusions (continued)

- Whether any set of incentives is desirable or not will depend on costs and outcomes of all the sectors combined
- May not be a single configuration of incentives which achieve all our health related objectives simultaneously
 - Thus, we'll be faced with trade-offs from a system-wide perspective
- Finally, reimbursement systems are blunt tools, and monitoring and regulation should accompany any such system