

HOSPITAL FINANCING DRGs: LEADING THE DEBATE

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Capital Dimension of DRGs

Steve Wright

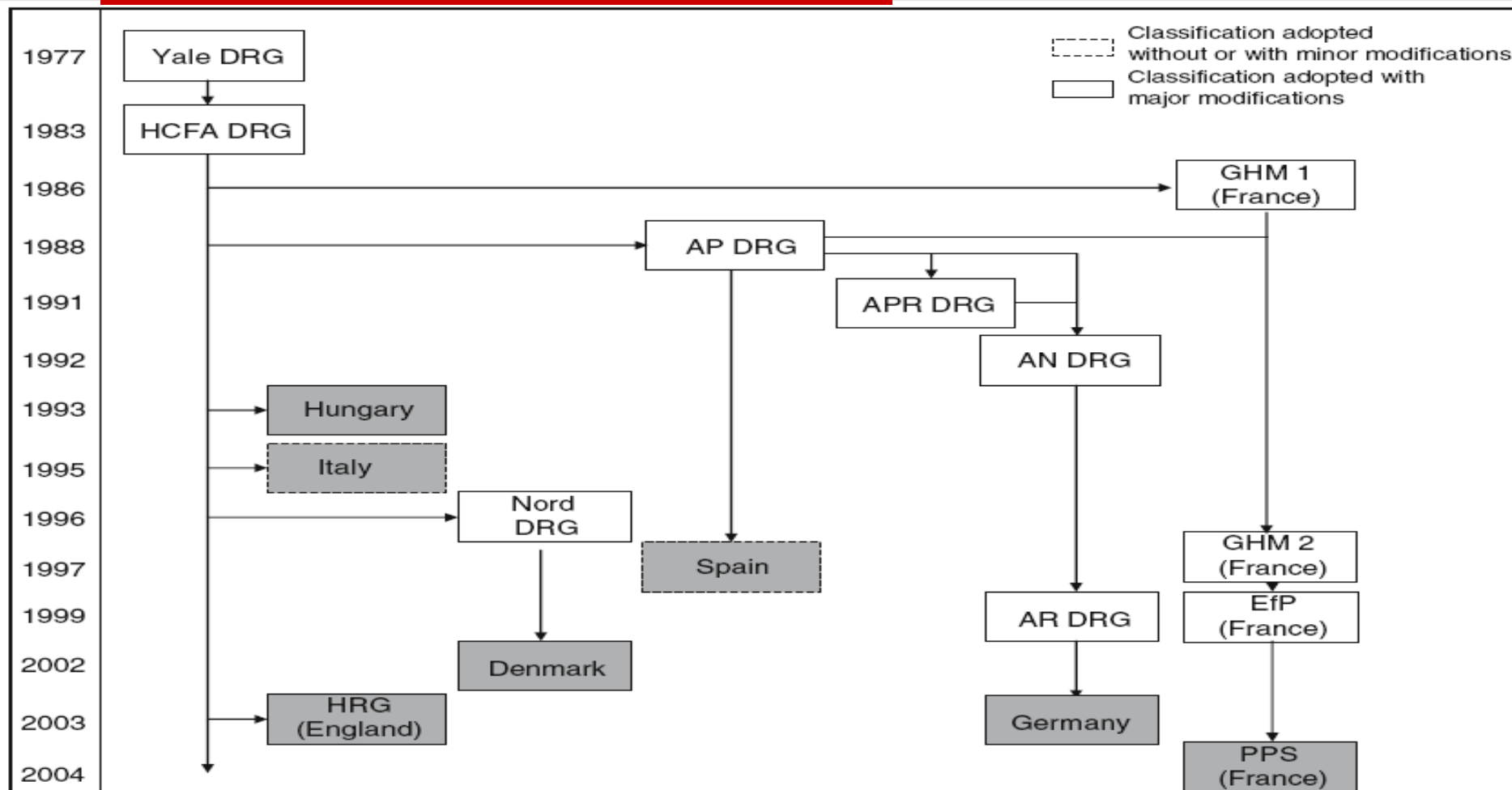
European Centre for Health Assets & Architecture

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- ECHAA, rising from a launch-site near you... (soon)
- ECHAA's aim is, by means of comprehensive & rigorous analysis, to:
 - support & promote evidence-based policy decisions on contribution of built environment to European health sector
 - focus on long-term issues of sustainability & appropriateness of estate
 - cover service planning, architecture/design, finance, construction & operation of hospitals & other healthcare facilities
- Founding Partners:
 - DuCHA: within TNO, state Netherlands Organisation for Applied Scientific Research, www.tno.nl/ducha
 - HaCIRIC: collaboration of British universities research centres – Imperial College, Loughborough, Reading & Salford (www.haciric.org)
 - Helsinki University of Technology (www.tkk.fi/en)
 - SINTEF: state Norwegian research group (www.sintef.no/Home)

DRGs - the family tree



Born in the USA: originally conceived for an American problem...

Laws of intended & unintended consequences



Mechanisms	Retrospective/ Prospective	Fixed/ Variable	Incentives for Provider Behavior		
			Prevention	Delivery	Cost Containment
Line item budget	Prospective	Fixed	+/-		+++
Global budget	Prospective	Fixed	++	--	+++
Capitation (with competition)	Retrospective	Variable	+++	--	+++
Per case (diagnostic related payment)	Either	Variable	+/-	++	++
Fee-for-service	Retrospective	Variable	+/-	+++	---

Source: Adapted from WHO (2000) and Jegers, et al (2002).

Inclusion of capital in DRGs



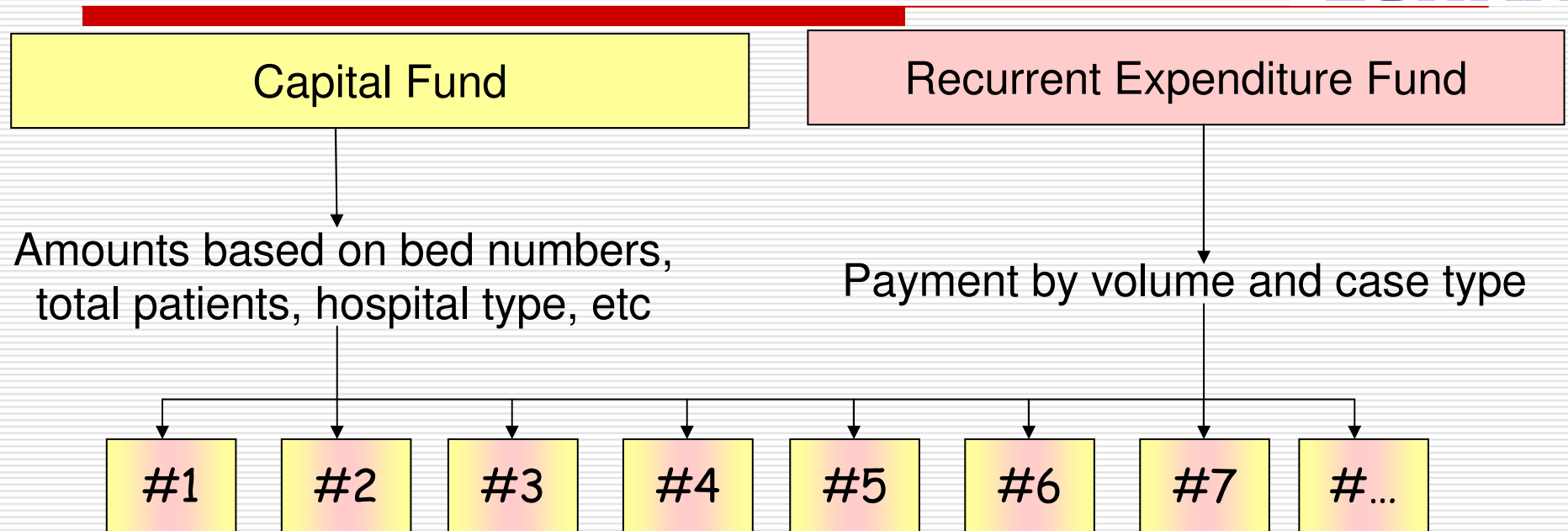
	FINANCING OF THE CAPITAL COSTS	Included
Austria	- Equivalents of consumption of fixed capital are included in the calculations of the DRG-weights	✓
Belgium	- The cost of infrastructure is paid by a budget. This budget is due to individual negotiations between hospital and Ministry of Health. - Important medical equipment and installations are in most cases financed by surgeons and hospital. Sometimes, there is also remuneration from the government within the hospital budget. - Communication systems' and informatics' budgets are based on historical budgets.	
Denmark	- It is financed outside the DRG-system	
England	- The revenue consequences of capital expenditure are part of the HRGs as capital charges are part of the revenue element of budgets.	✓
Finland	- All investment cost are included in DRG financing. There is no (any more) a direct investment support coming from the state	✓
France	- All the costs are included but the length of damping of funded capital is not standardised	✓
Germany	- The federal states generally cover the costs of infrastructure, important medical equipment and other equipment investments by subsidies	?
Italy	- DRG tariffs include reimbursement for all resources used during the process of care including equipment, personnel, drugs, room and board. However, some capital asset investments are financed according to specific programs strictly related to public functions and services.	✓ ?
Portugal	- With specific financing	
Spain	- Not included in the DRG-system	
Sweden	- All those costs are included in the DRG-system	✓
Switzerland	- Currently investments are not included in the DRG-based reimbursement	
The Netherlands	- All kinds of equipment are covered by DBCs, whether they are on list A or list B. - List B DBCs cover also the cost of capital.	✓

Ways of paying for capital assets



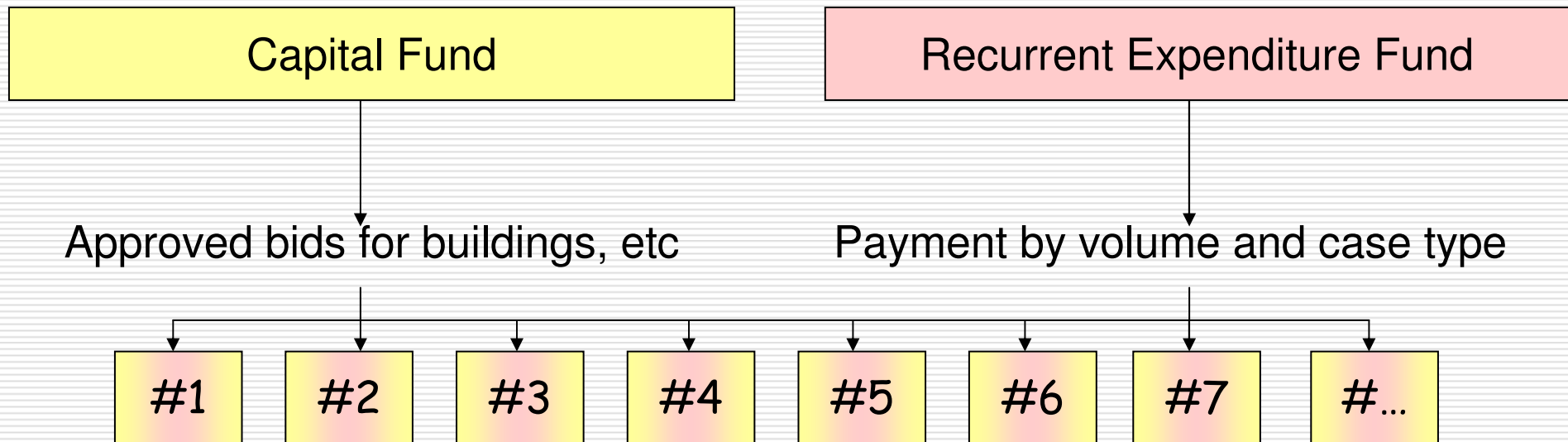
- Either separate budget:
 1. Non-specific payment, global grants (Model 1)
 2. Payments specific to intended use (Model 2)
- Or single activity budget, both capital & recurrent:
 1. Capital payment included as fixed proportion of all case types (Model 3)
 2. Estimated capital cost for each case type in a previous period, actual average (Model 4)
 3. Estimated capital cost for each case type if good care methods used, “standard” cost (Model 5)
- Or free market – all the above are “administered prices” – US &... NL (Model 6)

Model 1 - Separate budget: global, non-specific grants



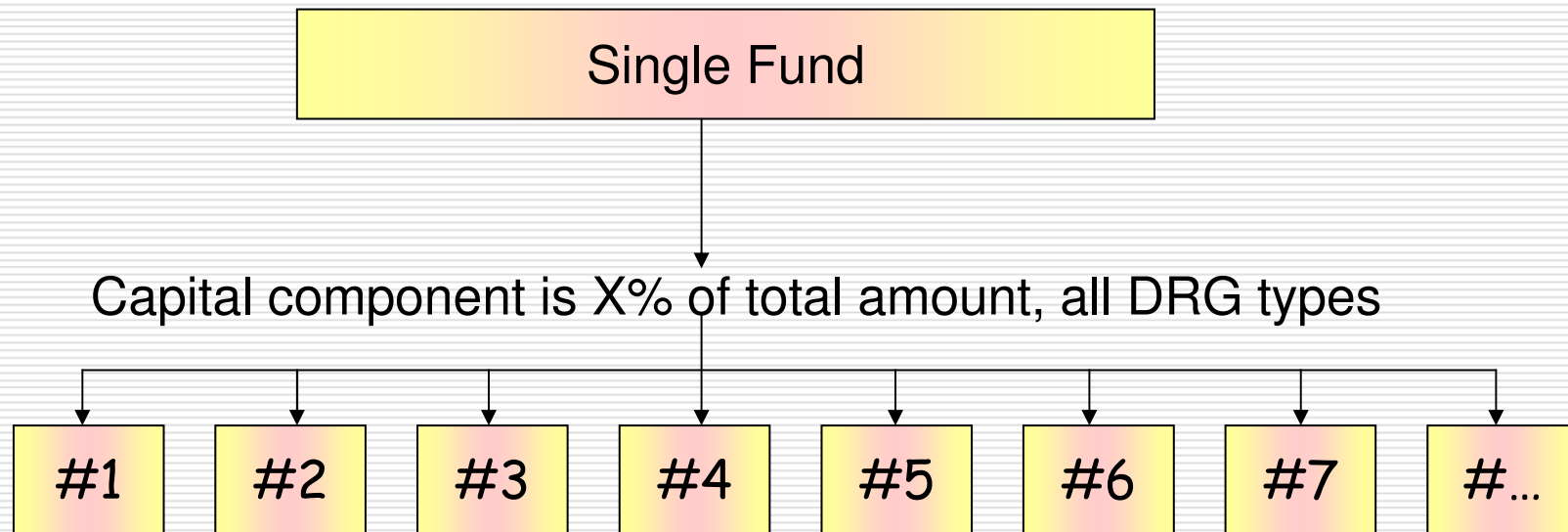
- Advantages
 - Simple to operate
 - Care providers have opportunity to innovate
- Disadvantages
 - No direct central control

Model 2 - Separate budget: payment for specific investments



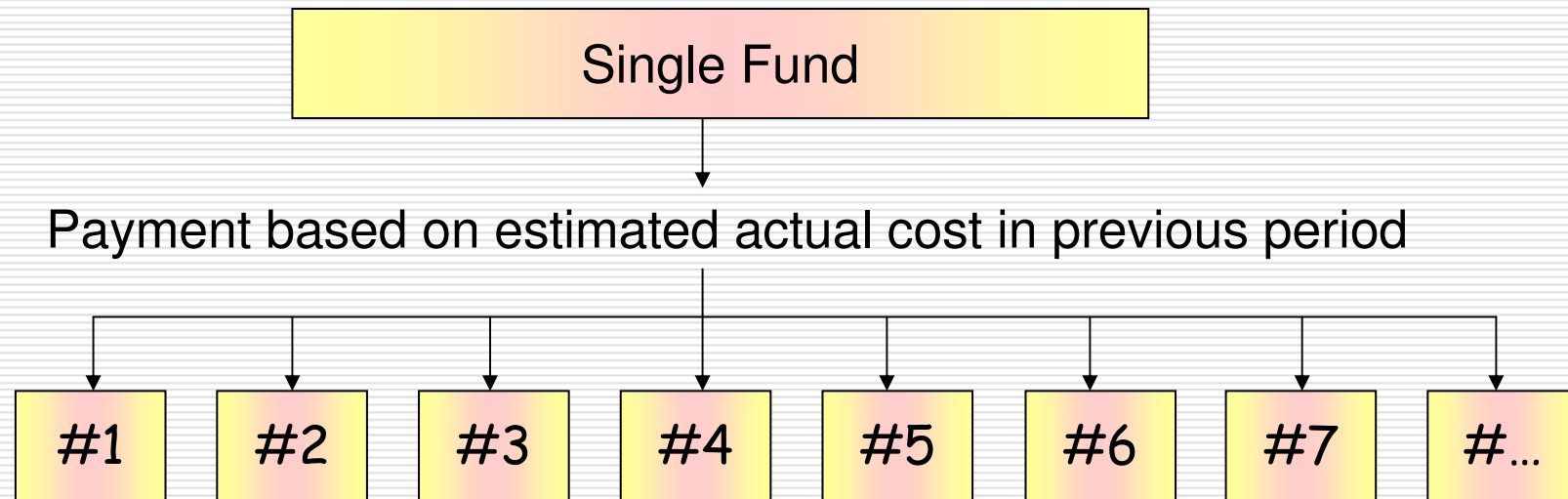
- Advantages
 - National (system) policies can be applied
 - Risk of idiosyncratic decisions is reduced
- Disadvantages
 - Difficult to operate (time-consuming)
 - Accountability taken away from care providers?

Model 3 - Single budget: fixed proportion for capital costs



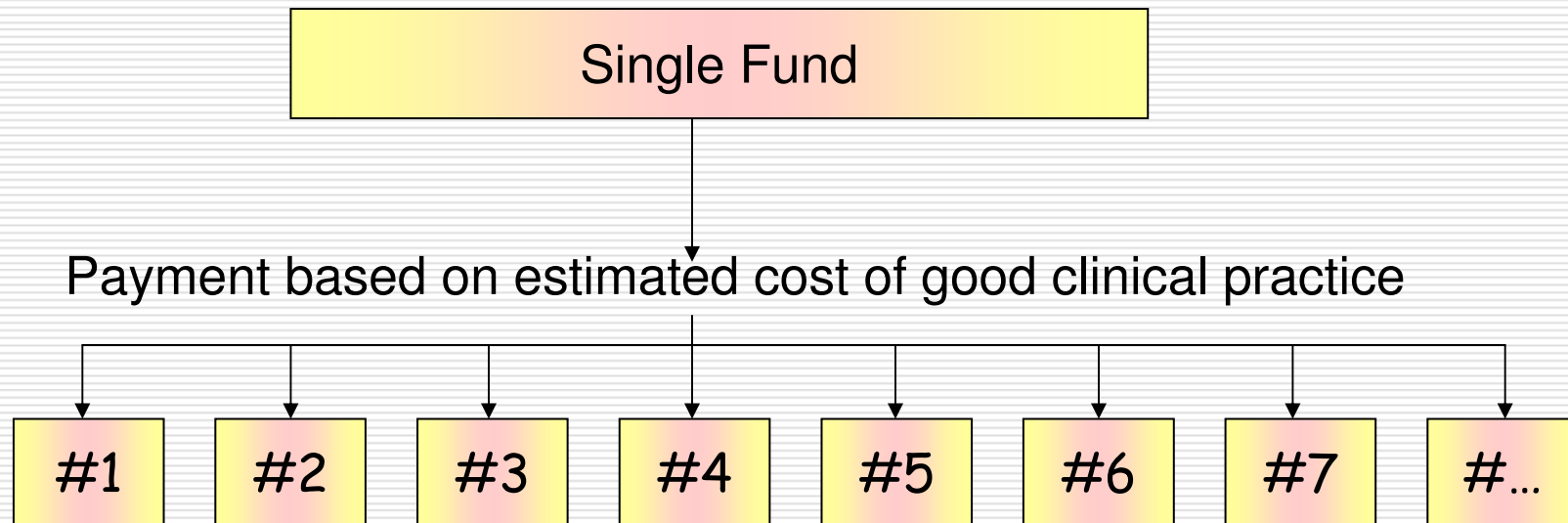
- Advantages
 - Simple to operate (like global grants)
 - Care providers have opportunity to innovate
- Disadvantages
 - No central control
 - Imprecise messages about real or desired cost
 - Likely mismatch of hospital capital resources to **future** needs

Model 4 - Single budget: different capital payments, each DRG type, based on actual average cost



- Advantages
 - Fairer allocation of payments among care providers
 - Gives messages about actual past costs, therefore encourages attention to efficiency
- Disadvantages
 - Difficult to operate (time-consuming)
 - Discourages innovation (because based on previous care practices)
 - Likely mismatch of hospital capital resources to **future** needs

Model 5 - Single budget: different capital payments, each DRG type, based on "standard" cost



➤ Advantages

- Fairer allocation of payments among care providers
- Gives messages about appropriate costs, encourages efficiency & good clinical practice

➤ Disadvantages

- Difficult to operate (time-consuming)
- Still potential mismatch of hospital capital resources to **future** needs if "standard cost" not well-computed looking over the long term

The right answer: probably, a mixed model



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- Model 5 (different payments for each DRG, based on “standard costs”) is best, **theoretically**, but involves a lot of hard work to set up systems
 - It does become easier to use over time because:
 - care providers establish data systems
 - best-practice information becomes more widely available
 - But in the real world it might make sense to use:
 - Model 5 for those high-volume case types with evident room for improvement
 - A simpler approach for other case types, & in short term

Some other considerations



- Capital investment decisions in most economic sectors are made to minimise Long Run Marginal Cost, by forecasting a combination of:
 - Demand for a unique economic product
 - Supply technology for that product
- However, DRGs are not:
 - Good descriptions of product demand (because they are contaminated by procedural – supply – considerations)
 - Good supply descriptions (because the technological content is both static/historic & very crude)
- Further, DRGs are arbitrary taxonomies which are:
 - Insufficiently disaggregated (they group care which is designed to deal with different kinds of health problems)
 - Misaggregated (e.g. surgical & medical resolutions of the same problem are grouped under different DRGs)
- Thus DRGs are not effective definitions of products, & DRG costs cannot then be effective estimates of LRMC
- For capital investment purposes, it might be better to move to purer demand measures based explicitly on disease syndromes (e.g. ICD-10), & associate this with forecasts of clinical pathways resource requirements

England "HRG" & Payment by Results (PbR) (a Model 4) - background



- 650 Healthcare Resource Groups, increasing to 1400 (from HRGv4)
- HRGs are mixture of diagnoses (medical, ICD-10) & procedures (surgery, OPCS-4)
- Single national tariff – most hospitals soon have no other income (2008/9: 70%)
- Tariff is retrospective - based on data collection 2 years previously
- Tariff is a fully-absorbed cost per HRG treatment service, inclusive of capital:
 - Matched to services to avoid cross-subsidisation
 - Maximises proportion charged directly to services, & with standardised apportionments of indirect & overheads
 - Excludes education and research
 - Increasingly uses international accounting standards
 - Same tariff for both elective IP & day-case
 - PbR available for community services, and some specialised
- Actual variation in unit costs between NHS providers not great, so presumably costing methods are consistent
- “Market Forces Factor” uplift picks up expensive sites (staff, land, buildings) - London

England "HRG" & Payment by Results (PbR) - capital charges



- Capital charges for hospital trusts include both depreciation (capital consumed in year) & interest (against value of capital stock retained)
- Assets are charged directly to relevant costs centres if one treatment function, or apportioned
- Depreciation is straight-line:
 - Over relevant lives for each asset (case-by-case, but typical might be IT – 5 years; long-life equipment – 15 years)
 - Average costs weighted across all the assets in, say, a building
- Interest charged at 6% on “average net relevant assets” (the depreciated replacement cost)
- Where there are PFI projects, unitary charge replaces depreciation/interest calculation
- Not clear that the average capital charges embedded will pay for next-generation investment

Netherlands case system payments - "List A" (a Model 4)



- DRGs were thought to have too little detail, & not transparent
- Therefore, NL-designed "DBC" differs from *most* DRG systems:
 - Inpatient **and** outpatient
 - Explicitly combines diagnosis **and** treatment
 - Salaried **and** non-salaried specialists
 - Results in 29000 DBCs (vs 600-900 for typical DRG systems)
- 3-[4] "dimensions"
 - Type of care (regular, emergency, chronic periodic)
 - Diagnosis (ICD-10 related)
 - "Treatment axis" (OP, IP day-care, episode; conservative, surgical, major non-surgical)
 - Patient demand
- For any one patient, multiple DBCs are possible, indeed likely
- "**List A**" initially covered emergency, complex, expensive medical, teaching at a fixed price government tariff
- List A has a supplementary, balancing "**closing tariff**" which also covers historical capital costs (but not clear that appropriate for future capex)

Netherlands case system payments - "List B" (a Model 6)



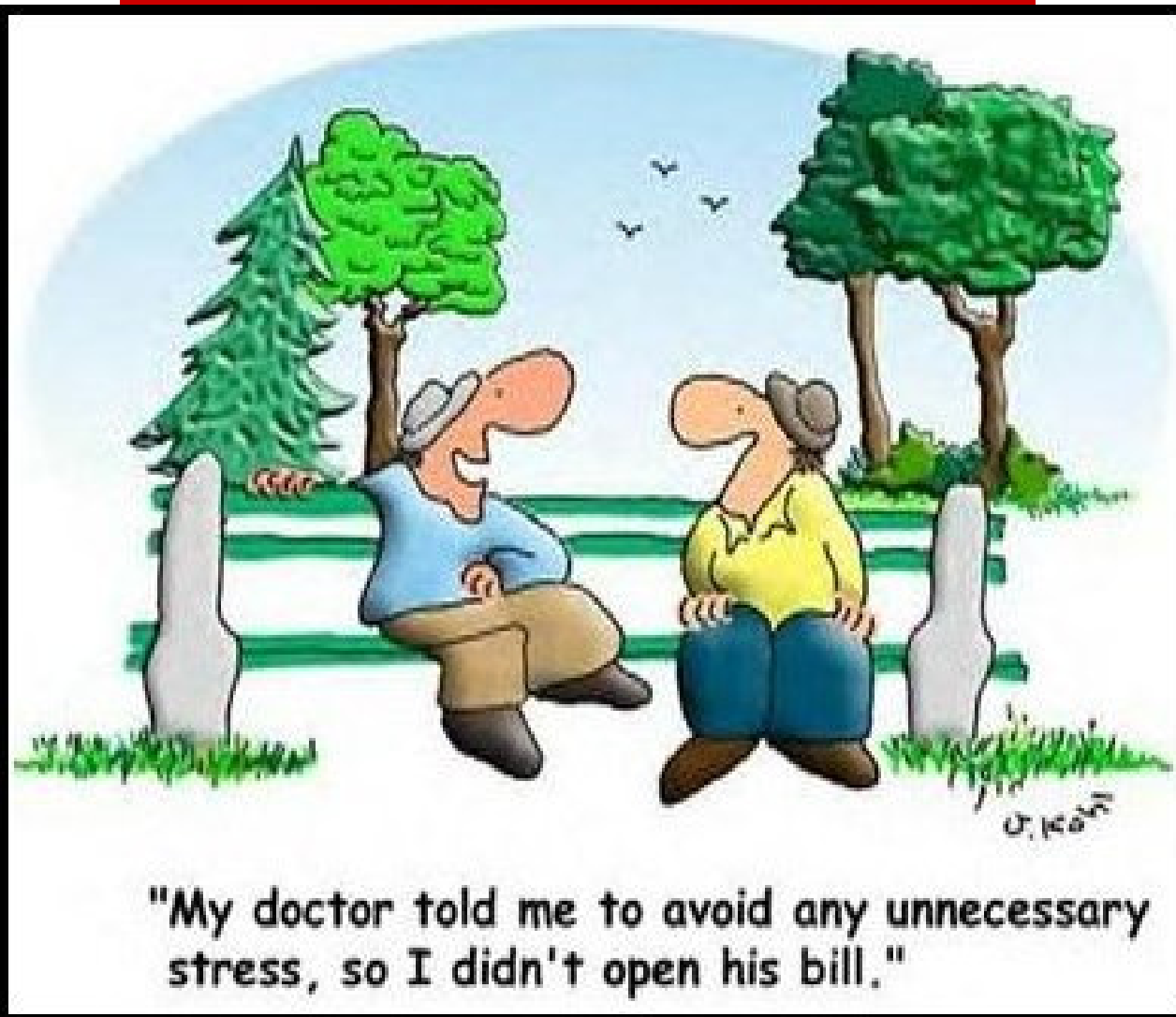
- **List B** – 2007 (10%), 2008 (20%), 2009 (34%), eventually 75-80% - originally elective but progressively wider
- Are **capital-inclusive**
- No “closing tariff”, prices are **negotiated** between multiple insurers & multiple hospitals - tariff differs for any one insurance fund between hospitals, & vice-versa
- These negotiated prices may be based on unit costs – but more likely respective market power of the two groups of parties (n.b. 25% of citizens switched between insurance providers in first year)
- List B prices rose fast in early years (up 5% vs 1.6% for List A)
- Complexity; transition & transaction costs; how to measure & ensure quality?
- Some hospitals already in financial distress, others are re-evaluating capital investment plans (using List B DBC financial models)
- **What will happen long-term???**

Conclusions



- DRGs were an answer to a US costing (& political) problem, avoiding “socialistic” global budgeting (even though latter achieved the desired cost control)
- All payment systems including case-mix types generate varied provider incentives
- There is a confused picture across Europe regarding inclusion of capital components in DRGs
- Variety of models to pay for capital, each with pros & cons – ideal would have (forward-looking) standard costs
- DRGs are not good descriptions of products or of technologies, so using them to pay for new capital stock is actually very dubious (though understandable)
- England’s DRG system is administratively complex, & has a backward-looking average cost of capital
- Netherlands DRG system is even more complex, & universal free-market negotiated prices will produce very uncertain results

Churchill: “We shape our buildings and afterwards they shape us”



Thank you!

steve.wright@echaa.eu

www.echaa.eu