Moral hazard and its policy implications

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Moral hazard in health sector

- Conditions for (*ex post*)MH
  - Asymmetric information between patient and third-party payer (the insurance company or the NHS)
  - Price reduction at the point of use due to insurance
  - Price-sensitive demand

On moral hazard: Arrow vs Pauly
Different views and policy implications

- **Arrow**
  - "It is frequently observed that widespread medical insurance increases the demand for medical care."
  - "MH in physician's control" [of patients' demand for medical care]
  - Policy implication: "the need for a third-party control" (public insurance with **gatekeeping)**
- **Pauly**
  - under an insurance contract that reduces the price there is nothing unethical in using more services; the insured individual simply reacts to the change in the price.
  - Policy implication: (optimal rate of) **cost-sharing** (co-payment, deductible, co-insurance)

Arrow

1. *The moral hazard.* The welfare case for insurance policies of all sorts is overwhelming. It follows that the government should undertake insurance in those cases where this market, for whatever reason, has failed to emerge. Nevertheless, there are a number of significant practical limitations on the use of insurance. It is important to under-

the cost of medical care is not completely determined by the illness suffered by the individual but depends on the choice of a doctor and his willingness to use medical services. It is frequently observed that widespread medical insurance increases the demand for medical care.

To some extent the professional relationship between physician and patient limits the normal hazard in various forms of medical insurance. By certifying to the necessity of given treatment or the lack thereof, the physician acts as a controlling agent on behalf of the insurance companies. Needless to say, it is a far from perfect check; the physicians themselves are not under any control and it may be convenient for them or pleasing to their patients to prescribe more expensive medi-

3. *Third-party control over payments.* The moral hazard in physicians' control noted in paragraph 1 above shows itself in those insurance schemes where the physician has the greatest control, namely, major medical insurance. Here there has been a marked rise in ex-

Pauly

When uncertainty is present in economic activity, insurance is commonly found. Indeed, Kenneth Arrow [1] has identified a kind of market failure with the absence of markets to provide insurance against some uncertain events. Arrow stated that "the welfare case for insurance of all sorts is overwhelming. It follows that the government should undertake insurance where the market, for whatever reason, has failed to emerge" [1, pp. 945, 961]. This paper will show, however, that even if all individuals are risk-averters, insurance against some types of uncertain events may be nonoptimal. Hence, the fact that certain kinds of insurance have failed to emerge in the private market may be no indication of nonoptimality, and compulsory government insurance against some uncertain events may lead to inefficiency. It will also be shown that the problem of "moral hazard" in insurance has, in fact, little to do with morality, but can be analyzed with orthodox economic tools.

The particular type of insurance for which the argument will be presented is that of insurance against medical care expenses, for it was in a discussion of medical expense insurance that Arrow framed the propositions cited above. However, the analysis is applicable as well to other types of insurance, such as automobile collision insurance.

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On moral hazard: Neyman

- The reason to demand health-insurance is an income transfer from the healthy to the sick state → co-insurance is a reduction in income exactly when income is needed (i.e. when sick).
- The change in healthcare utilization due to an increase in price (co-insurance) can be decomposed into an **income and a substitution effect** and only the second produces a welfare loss as in the traditional analysis of moral hazard.
- To understand the effects of health insurance, this must be compared to the alternative, or **counterfactual**

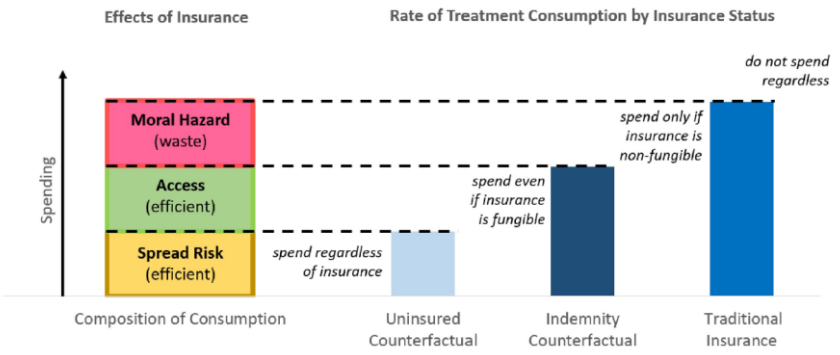

Fig 1. Theoretical model for decomposing effects of health insurance from two counterfactual conditions. Values are hypothesized for illustration. Reproduced with permission [40].

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Summing up

- Is it "unnecessary" expenses?
- Which is the correct counterfactual?
  - Income vs substitution effects
- Whose MH?
  - Patients or providers?
  - This has implications for policy (co-insurance/copayment vs incentives for providers)
- Long-run effects on health, including preventive care
- Results are context specific (external validity)
  - Institutions matter (rent seeking)