

Recently Time had published an article called "Bitter Pill: Why Medical Bills Are Killing Us" by

September 6, 2012

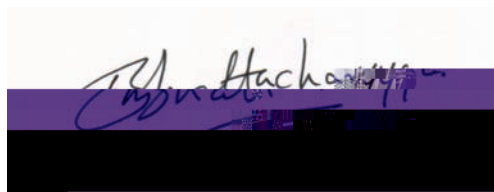
**A Suggested Health Care Plan for the UA System- Note 1
Preliminary and Incomplete. Do not cite without permission**

1. Broad Features of the Suggested Plan

- (a) There shall be one plan for all employees of the University.
- (b) In the first year of the proposed plan (Year 1), the University will establish a *Fluctuation Reserve F* of say \$5 Million. This amount is stated just for ease of exposition. The exact amount of this reserve shall be determined after due deliberation and will be subject to revision.
- (c) In the First year of the Insurance Plan the features will be as below.
 - Premium = 0
 - Deductible = 0
 - Co pay = 20% will be paid by Employees and 80% by the University.
 - Out of Pocket Maximum = *M*. Say \$ 11000. (I have arrived at this figure by adding the current figures for Family Deductible and Family Out of Pocket Maximum under the HDHP plan.)
- (d) In the first year whatever health care costs are not recovered through Co-pays will be paid out of the *Fluctuation Reserve*. From the second 11.9N1(Deduc21g((d))-50(th)-250(t)-250(will))

3. **Other Comments.** Employees will be required to give one year's notice in order to opt out of the program. This is required so that employees cannot take advantage of the zero premium in the first year and quit the plan in the second year. Exceptions to this policy shall be made in the event of the death or retirement of the employee or the termination of the employment relationship.

With best wishes



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DRAFT

**A Model for Designing a Health Care Plan for the UA System- Note 1
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1. Notations

- P Per Capita Premium
d Per Capita Deductible
M Per Capita Out of Pocket Maximum Cost.
 \bar{x} Per Capita Health Care Cost- A continuous random variable over a support of 0 and ∞ .
 $f(\bar{x})$ Probability density function for \bar{x} .
 ϕ Co-Pay percentage.

2. **The Principle.** The model is based upon the principle that UA is a self insured system. Therefore the total *expected* payment should be equal to the *Expected Health Care Cost Per Capita* or E

$$P + \int_0^d x f(x) dx + \phi \int_d^M x f(x) dx + (1 - \phi) \int_d^M x f(x) dx + \int_M^{\infty} x f(x) dx = E(\bar{x})$$

$$P + \int_0^d x f(x) dx + \int_d^M x f(x) dx + \int_M^{\infty} x f(x) dx = E(\bar{x})$$

$$P + \int_0^{\infty} x f(x) dx = E(\bar{x})$$

$$P + E(\bar{x}) = E(\bar{x}) \text{ because } E(\bar{x}) = \int_0^{\infty} x f(x) dx \text{ by definition of the Expectation operator.}$$

$$P = 0$$

4. The Implication