

February 27, 2013

UAF Faculty:

The letter below is from DNalinaksha Bhattacharya, UAA College of Business and Public Policy and past president of the UAA Faculty Senate. He is currently one of the faculty representatives from United Academics on the university system's Joint Health Care Committee (JHCC). The other two are Abel Bult-Ito and Leah Berman from UAF.

I have some concerns about the Health Care benefit design process in the UA system. I hope you will be able to discuss these as health care is an important issue for all of UA.

My concerns are as below:

1. I think we need to look at our Insurance scheme urgently. Anecdotally I have heard from a few staff members that many of them have started treating

The second one is a mathematical model and is not essential to the discussion. It is called Model of Health Care Plan_Note 1.pdf This model just establishes that in a self insured system with splitting of costs the Premium (i.e the payroll deductions) will be zero. It is included here for

September 6, 2012

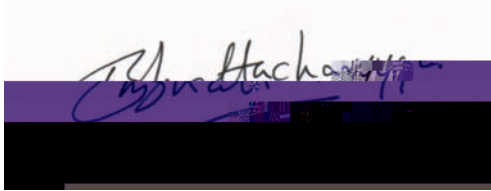
**A Suggested Health Care Plan for the UA System- Note 1
Preliminary and Incomplete. Do not cite without permission**

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 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

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



Nalinaksha Bhattacharyya
PhD(Calcutta), PhD(UBC), CGA
Professor
College of Business and Public Policy
University of Alaska Anchorage

DRAFT

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 Do not cite without permission

1. Notations

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

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

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

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

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

$$)P = 0$$

4. The Implication