



## Presumptive Charity Care

### Accuracy of charity care reporting

For all the scrutiny and criticism of tax-exempt hospitals regarding inadequate reporting of charity care, are the hospitals entirely at fault? To the contrary, it is the general approval process for determining charity care as well as the patients themselves who should incur the most blame for creating the perception of hospitals failing to provide enough charity care to warrant their tax-exempt status.

Recent studies have suggested that some tax-exempt hospitals could better educate their personnel about available and required charity care and, in turn, better inform patients and the general community about charity-care options. Most tax-exempt hospitals, however, spend significant time and resources helping patients apply for charity care through financial counselors.

Patients still are provided ample opportunities to submit a completed application – not only during their hospital stay but also at any point before the decision is made to classify an account as bad debt (and in some cases even after an account is classified as bad debt). It would seem natural then that most patients in financial distress would take advantage of these opportunities, allowing hospitals to easily meet their charity-care goals.

The numbers reveal otherwise. A significant number of patients fail to apply for financial assistance, and their inability to pay leads them to be classified as bad debt. The reasons may be due in part to difficulties in contacting these patients to request supporting documents as well as communication hurdles with ethnically diverse patient populations.

Historically, hospitals have been correct to claim bad-debt expense as part of their community benefits. They understood intuitively that a majority of the patients classified as bad debt had no ability to pay their outstanding bills. Hospitals, on average, collect less than 10 cents on the dollar on charges attributed to uninsured patients. Even though most tax-exempt hospitals hire professional collection agencies, 90 percent of outstanding balances typically go uncollected. Even if a portion of the uninsured patient population does have sufficient means to pay off their medical debt but fail to do so, it can be reasonably inferred that a majority of uninsured patients have limited means to pay off their medical debt. The key to more accurately measuring and reporting charity care provided by tax-exempt hospitals is to segment the uninsured population into patients with and without adequate means.

To accurately measure and report real levels of charity care when little or no financial information is provided by patients, tax-exempt hospitals need to develop tools to



identify segments of the patient populations with limited economic means. Since any solution developed to address this business issue would have to rely on extraneous data sources, it is imperative that the solution meets the following conditions:

1. **Objective and Unbiased:** Should not adversely affect any patient group by means of race, religion, age, marital status and sex.
2. **Defensible:** Must document and statistically demonstrate the significance of either the algorithm or extraneous data utilized in segmenting the patient population into groups with limited economic means.

### What percentage of bad debt can be re-classified as charity?

Since the availability of verified income information at an individual level on a national basis is very limited or non-existent unless the patients themselves provide it, Medlytix relies on other external data sources to indirectly assess patient financial means. Medlytix utilizes a process commonly referred to as "scoring" to classify patients into specific groups based on estimated levels of each patient's financial means.

How reliable are scoring systems? The Federal Trade Commission has extensively analyzed both the development and usage of scoring systems and has this information on its website (<http://www.ftc.gov/bcp/edu/pubs/consumer/credit/cre24.shtm>): "Properly designed, credit scoring systems generally enable faster, more accurate and more impartial decisions than individual people can make." Credit scores are designed to predict payment risk and should not be utilized to assess individual financial means.

Medlytix's charity scores are tailored for each hospital through a retrospective data analysis of the hospital's own patient population. This analysis is dependent upon the gathering of hospital data such as patient / guarantor identifying information and patient financial class. This information is first used to append credit and demographic data and is then run through specific statistical methodologies to identify characteristics that distinguish patients with low financial means from the overall population.

Since we are inferring a patient's financial means, it is imperative that the characteristics identified through the statistical process also make logical sense. Intuitively, characteristics such as whether someone owns a home or an automobile, the home or automobile loan amounts, the number of credit cards, the available credit on their credit cards as well as the general demographic information about the area of residence (i.e. is it in an affluent area as measured by poverty levels etc ...) provide insights into an individual's financial means. If through this statistical process we can demonstrate a significant variation in the above characteristics across groups of patients identified as having limited financial means as opposed to the rest of the population, it inherently supports the argument that these patients should be reclassified as charity.



## Data Analysis

For the purpose of this report, historical patient information was collected from over 40 hospitals nationally. Charity scores were developed on the entire dataset utilizing the methodology described above. All uninsured patients who had originally been classified as bad debt were now segmented into two groups by utilizing the developed charity score: patients that needed to be re-classified as charity and patients that needed to move on to bad-debt. Report #1 provides a summary on a random selection of 7 hospitals from the dataset. The charity re-classification rate varies from 13.72% to 49.46% with an overall average of 33.73%. The variations in the re-classification rate can be explained by the geographic location of the hospital and the underlying quality of patients served by that hospital. The difference is discussed in details in the following section.

### Report 1 – Percentage of accounts that should have been re-classified as charity

	% Re-Classified to Charity
Hospital A	13.72%
Hospital B	28.56%
Hospital C	49.46%
Hospital D	31.74%
Hospital E	45.05%
Hospital F	40.08%
Hospital G	27.48%
Average	33.73%

### Report 2 – Overall Sample

#### Overall Sample

Description	Re-Classified to Charity	Not Assigned to Charity	Not Assigned to Charity
% Below Poverty	19.68%	11.65%	15.03%
% with Mortgage History	0.45%	29.79%	18.03%
% with Auto History	17.32%	53.39%	38.94%
% with Open Credit Card	0.30%	48.83%	29.38%
Credit Card Limit on Open Credit Card	\$ 239	\$ 22,362	\$ 22,249
Available Revolving Credit	-	\$ 14,689	\$ 14,614
Total Open Installment Loan Amount	\$ 4,427	\$ 67,735	\$ 58,395

Reports #2 clearly demonstrates that the accounts selected for charity re-classification have much lower financial means than the average bad debt population. They are characterized by a higher poverty rate, a much lower number of credit cards and mortgage loans, and a significantly smaller credit limit.



In order to understand the variations in re-classification rate by hospital, Hospital A and Hospital C were chosen to further analyze the data characteristics used in the segmentation algorithm. The Total Column in Reports #3 and #4 provides a good insight into the underlying patient demographics served by each hospital. Hospital A's patients home and auto ownership rates are three times higher than Hospital C. Available credit and loan amounts are also significantly higher for Hospital A. This difference in underlying demographics between the two hospitals explains the wide variation in re-classification rate.

*Report 3 – Characteristic Analysis*

<b>Hospital A</b>			
Description	Re-Classified to Charity	Not Assigned to Charity	Total
% Below Poverty	8.51%	5.24%	5.56%
% with Mortgage History	0.27%	53.01%	45.10%
% with Auto History	20.75%	56.73%	51.34%
% with Credit Card History	39.76%	91.17%	83.92%
Credit Card Limit on Open Credit Card	\$ 240	\$ 49,161	\$ 49,087
Available Revolving Credit	\$ -	\$ 33,218	\$ 33,168
Total Open Installment Loan Amount	\$ 8,406	\$ 216,170	\$ 207,837

*Report 4 – Characteristic Analysis*

<b>Hospital C</b>			
Description	Re-Classified to Charity	Not Assigned to Charity	Total
% Below Poverty	12.91%	11.87%	12.15%
% with Mortgage History	0.38%	31.57%	14.70%
% with Auto History	9.52%	48.98%	27.63%
% with Open Credit Card	0.08%	47.47%	21.83%
Credit Card Limit on Open Credit Card	\$ 203	\$ 14,979	\$ 14,938
Available Revolving Credit	\$ -	\$ 10,019	\$ 9,991
Total Open Installment Loan Amount	\$ 3,045	\$ 44,724	\$ 35,250

**Conclusion**

Intuitively healthcare providers know that a significant portion of their bad debt would have been re-classified as charity if the patients had provided income and asset information. Based on the findings of our study, we can conservatively assume that on average at least 30% of the national uninsured patient population currently being written off to bad-debt should be re-classified as charity. Individual hospitals should conduct similar type of analysis to understand and explain their own charity re-classification rates.



*About the Author: Arvind Krishnaswami, CEO and co-founder of Medlytix, has devoted years to evaluating the healthcare industry revenue cycle process - including patient process flow, patient collection and recovery systems, associated data and data architecture, government regulations, and financial impacts - through in-depth data analysis as well as meetings with senior management at hospitals across the country. This body of work has resulted in a new analytical model for analyzing healthcare data, which in turn transforms that data into tremendous cost savings, increased charity care, improved margins, and enhanced cash positions for hospitals.*

*Prior to Medlytix, he led a division of Equifax Predictive Sciences.*

*Arvind holds a BS in electrical engineering from National Institute of Technology, Surat, India, and an MS in electrical engineering. He also earned an MBA in finance from Southern Methodist University in Dallas, Texas.*