

## PROFIT MAXIMIZATION AND NURSE STAFFING STANDARDS/LEVELS IN FOR-PROFIT AND NOT-FOR-PROFIT NURSING HOMES

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**Abstract:** Profit maximization is a significant factor affecting adherence to adequate staffing standards and actual staffing levels of nursing staff in many nursing homes in the United States. Studies have shown that inadequate nurse staffing is worse in the for-profit than not-for-profit nursing homes and, is adversely affecting resident care outcomes. The purpose of this report is to examine the literature and establish the impact of profit maximization on nurse staffing with a focus on the differences between for-profit, not-for-profit, and religious-based nursing homes in the United States. Databases such as CINAHL Plus, Business Source Complete, Medline Complete, Academic Search Complete, ProQuest Nursing, Allied Health Source, and Google Scholar were used as sources for information collection. Compared to other types of nursing homes, findings showed that for-profit nursing homes are doing better financially but worse on care outcomes. It is important that nursing homes regulators enforce strict adherence to staffing standards for optimal quality of care outcomes.

**Key words:** Profit maximization, nursing homes, nurse staffing, care outcomes.

### Profit Maximization

In nursing homes, as in other organizations providing social and health care services, the goals for the enterprise may or may not include maximizing profit for the investors and shareholders. In accounting, maximization of profit translates to operating an industry at a level of surplus difference between total revenue and total cost or where the marginal cost is equal to marginal revenue (1-3). In accordance with the conditions underlying the economics of supply and demand, profit maximization occurs when the market is perfectly competitive, the entrepreneur has perfect knowledge of the market and is willing to assume risks, consumers are well informed, and production is made with a prospect of having surplus gain (4).

Maximizing profits in the United States (U.S) nursing homes (NHs) has involved adopting the strategies that focus on increasing revenue and containing operating costs and expenses (3). Nursing homes can increase their revenue and profit by engaging in upcoding business activities by providing additional services to patients or coding them as sicker, changing the mix of residents towards more profitable payers, and admitting residents that have profitable case-mixes (5). Increased use of ultra-high therapy Resource Utilization Groups and selling of stocks constitute other means by which NHs could increase revenue (6).

Health care labor cost incurred on staffing is the most expensive operating cost (2, 7). Therefore, decisions to increase profits and contain costs, among the U.S NHs, could involve reducing or maintaining lower nurse staffing levels, increasing patient-nurse staff ratio, reducing employee job benefits, and substituting cheaper lower skill staffers for higher skilled licensed nurse staffing that are more expensive (2, 6-11). These activities, according to these authors, have led to reduced quality in other areas of residents care.

Profit maximization is almost always the goal of business for the for-profit (FP) category of nursing homes (NHs) while the not-for-profit (NFP), especially the religious-based NHs, exist to provide value-based services (1, 3, 6, 7, 12). Nationwide, the FP NHs are presumed to set output, input, quality, and residents case mix in order to maximize profits (12). Most of these NHs are publicly-owned by investors who have shares in the business and are expected to benefit from its profits and investments reward (1, 3) thereby adding the pressure of maximizing profits to the operators of the facilities.

The NFP NHs, on the other hand, are non-governmentally owned by religious, community groups or agencies and operated as nonprofit organizations (13). In the U.S, these facilities are precluded from an assignment of property rights; they do not have defined shareholders, and are not subject to the pressure of distributing profits (3, 7, 12). On the contrary, the NFP facilities are expected to use the profit derived from operation for the benefit of the clients (13). Effective performances of the not-for-profit religious-based NHs are measured by the outcomes in how well they provide services; take care and meet the immediate needs of customers (16).

In the United States, studies have concluded that FP NHs performed financially better than NFP NHs in operating revenue, operating profit margin, and total profit margin (1, 3). Harrington et al. (14) reported that Medicare profit margins in FP NHs were three times more than that of NFP NHs. Bos et al. (8) concluded, in their systematic review study on NHs financial performance, client, and employee well-being, that FP NHs had a better financial performance with higher profit margins and better efficiency than the NFP NHs. In situations that predispose FP NHs to the possibility of having reduced profits, profit maximizing decision would rather jeopardize the quality of care services and outcomes (1, 7, 8, 14). Profit making NHs are strongly inclined to choose the

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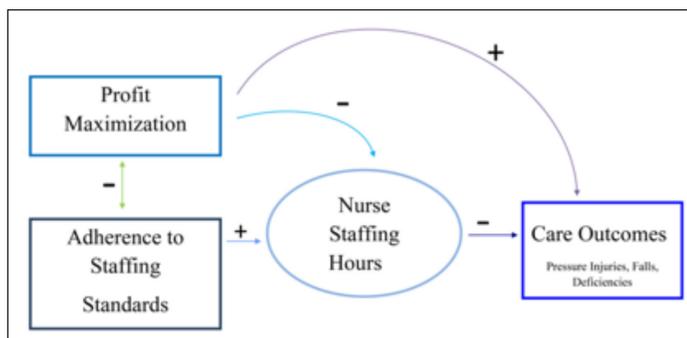
profit maximizing levels of quantity and quality of care (1, 2).

### The Relationship between Profit Maximization and Nurse Staffing Standards/Levels

The impact of maximizing profit, which is characteristic of the U.S FP NHs, has been studied in relation to nursing staffing levels in NHs. Prioritization for profit maximization in NHs has been reported to be significantly correlated to lower nurse staffing levels, serious staffing quality related deficiencies, and poor care outcomes in other areas of quality measures (6, 7, 9-11). Figure 1 shows the illustration and interrelatedness of profit maximization, staffing standards, and care outcomes in nursing homes.

**Figure 1**

Illustration of profit maximization, staffing standards, and care outcomes



Examining the effect of profit status and chain affiliation in Ontario long-term-care homes, Hsu et al. (11) found out that, despite the complexity of needs and the rise in proportion of residents who needed care services, the FP facilities had marginal to lack of growth in registered nurse staffing level and higher use of cheaper, less skilled, support care workers. Hsu et al. added that the religious organizations had more direct care nursing hours than the FP organizations. In a similar study, over 2003-2009 period, by Harrington et al. (1), the profit maximizing chain of twenty-two nursing homes in California was found to have increasing high resident acuity (44-67% of total residents) and 34-44% revenue increase than other NHs. In these NHs, nurses' staffing hours were lower than the state required 3.2 total nursing hours for one-third of the total days during these years of study. These culminated in sixty-two annual or complaints surveys and several staffing-related deficiency citations throughout the twenty-two facilities.

In most cases, registered nurses hour per resident day has been shown to be compromised when administrators are required to maximize profits within the context of compliance with staffing standards (1, 2, 7). Registered nurses' staffing level, the most important but more expensive nursing skill category, and their ratio in staffing skill-mix were found to be at a lower level in FP maximizing NHs compared to NFP NHs

(1, 2, 6, 7, 10, 11; 15). Likewise, these authors concluded that total nursing staff hour per resident day was, also, generally reduced in the U.S FP nursing homes.

Harrington et al. (7) and Harrington et al. (1) stated that all for-profit chains and other for-profit nursing homes in the U.S had a lower number of total nurses' hour per resident day than their counterpart nursing homes operators. In response to nurse staffing standards and levels, FP NHs had lower staffing levels for all types of nurses (15). In their study on the relationship between ownership, staffing, and quality in Indiana using the U.S Center for Medicare and Medicaid Services's five-star rating system, Gichungeh and Kim (10) concluded that 35.9% of FP NHs received "above average" and "much above average" compared to 66.1% overall nurse staff rating received by the NFP NHs.

There are few studies that reported exceptions to reduced nurse staffing hour per resident day in the U.S FP NHs. Harrington et al. (7) found a higher total nursing hour per resident day in the FP NHs when there was an increasing percentage of residents who had limitations doing activities of daily living. Gichungeh and Kim (10) reported no difference in LPN staffing levels in the two categories of NHs and McDonald et al. (9) reported no conclusive evidence of a significant relationship between FP NHs and staffing-related deficiency citations. Bos et al. (8), found a study that failed to find differences in staffing levels between FP and NFP NHs.

*Conflict of interest:* There is no conflict of interest, financial or otherwise, involved in this study.

*Ethical standard:* This article does not involve human/animal participants.

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