Background

In March 2019, Wellness Solutions and Holistic Health, LLC proposed a merger that would fully combine the two healthcare diagnostics firms. The healthcare diagnostics market includes medical testing products such as blood testing kits and disease testing kits. This industry is notable for its medical importance, as these devices can, in some cases, determine life or death. Due to the significance of these products, it is important that this merger does not significantly hamper competitiveness in the industry. Analysis should thus be performed with an intentionally wary mindset, understanding the relative inelasticity of the industry. Details on the competitive effects of this proposed merger are included in this summary, supporting our recommendation to the FTC to not allow these firms to merge.

Assumptions

Both Wellness Solutions and Holistic Health, LLC sell a full line of health diagnostic products, but the primary source of revenue for both firms is from blood glucose meters (BGM). First, it is assumed that Wellness Solutions and Holistic Health profit solely from the sale of blood glucose meters; this is a simplifying assumption that greatly reduces the complexity of the merger analysis.

Next, the market that the two firms operate in is defined as the blood glucose meter market, in which firms only sell this one product. Although blood glucose test strips are used with blood glucose meters, they are not included in the same market because of the drastically different means of manufacturing – creating a meter is primarily a mechanical process while making the test strips is chemical[1]. Further, the market also does not include Continuous Glucose Monitoring (CGM), a machine that automatically reads a user's blood sugar levels hundreds of times each day and alerts them if this level becomes too high or low. These products are relatively new (less than 3 years old) and some models are not permitted for people of a certain age to use. Further, a medical professional has to prove that the device is a medical necessity for someone to purchase a CGM, which is not the case for blood glucose meters[2].

This blood glucose meter market can then be further designated into separate markets for each region of customers. An analysis of the price and quantity of blood glucose meters sold for each region shows that the equilibrium points vary for each market, indicating that these markets should be treated separately (Figure 1). It follows that these markets should be analyzed individually, as consumers in Pacific states such as Oregon will find it difficult to purchase meters sold in the Northeast.

The nationwide market is assumed to be an oligopoly, with eight powerful domestic firms and a competitive fringe in particular geographic markets such as the Northeast. The barrier to enter the blood glucose meter market (or that of any medical device) is high due to the cost of production and the medical knowledge needed. We also assume that all BGMs are homogeneous. It is also assumed that retailers and healthcare providers buy BGMs at the same price and are indistinguishable from one another (Figure 5).

Methods

Our analysis includes calculating market share before and after the merger, determining market concentration through the Herfindahl-Hirschman Index ("HHI"), and measuring monopolistic power with the Lerner Index.

Preliminary analysis of the market share displayed that the firms have a larger market share in the Pacific and Midwest regions. In both of these markets, the firms have a 32% combined market share (Figure 2). In the Midwest, they will become the largest firm. While increasing to 32% of the market share after the merger is not in itself cause for worry, combined with other aspects of this analysis, it contributes to the anticompetitive effects of this merger, especially in the Midwest, where the merged company would hold a commanding market share advantage over other firms.

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[1] http://www.diabetesforecast.org/2012/jul/anatomy-of-a-test-strip.html

[2] https://www.healthline.com/diabetesmine/what-is-continuous-glucose-monitor-and-choosing-one#CGM-systems-currently-available

HHI was an important index in the analysis, as it describes the amount of market concentration. The HHI was calculated by squaring each firm's percent stake in the market as a percent and summing across each market. HHI was found to be larger by a statistically significant amount in the Pacific and Midwest markets, so much of the analysis on the competitive effects of the proposed merger focused on these two markets specifically. For those markets, the difference of HHI before and after the merger was 439 and 504 respectively, which are well above the 100 point increase threshold outlined in Section 5.3 of the FTC and DOJ Merger Guidelines (Figure 3). Because it was well over the threshold, these markets can become potential targets of anticompetitive effects.

The Lerner Index describes the ability of a firm to charge above its marginal cost. The higher the value, the greater a firm's monopoly power. The index was calculated for every transaction from both firms: the unit cost, assumed to be the marginal cost, was subtracted from the price, yielding the margin. This figure was then divided by price. The Lerner Index was consistently higher for both firms where they face less competition (Figure 4). The median index in the Midwest for Wellness Solutions (0.1598) was 33.68% greater than the median for the rest of the regions (0.11954). This indicates that these firms have more monopoly power in the markets with limited competition, and merging would further increase this power. This would allow the merged firm to increase prices without loss of profit.

Results

From this quantitative analysis, it was determined that the proposed merger between Wellness Solutions and Holistic Health would be anti-competitive due to possible coordinated interaction and unilateral effects so the firms should not be allowed to merge. In the Pacific, three firms (the merged firm, Wilson & Wilson, and ThriveMetrix) would control 84 percent of sales. The merger would increase the likelihood of anti-competitive actions in this region, such as coordinating prices increases.

Both firms are also able to charge a higher markup in markets with less competition as shown by the Lerner Index (Figure 4), so the merged firm may be able to raise profits without forfeiting many sales. The HHI Index reveals the danger of market concentration in the Midwest and Pacific industries, with levels far above the recommended threshold (Figure 3). Further, since the price is negotiated by retailers and healthcare companies, buyers will have less leverage to obtain a lower price, having one less firm as an alternative.

Limitations and Next Steps

Our analysis is limited by the availability and access of market research such as consumer surveys, market data beyond sales data of Wellness Solutions and Holistic Health, and also by our simplifying assumptions. Clearly, assuming blood glucose meters to be the sole source of revenue for these firms is unrealistic because both these firms provide a full array of products.

More data on the blood glucose meter market as a whole would also be necessary to understand the natural effects on the industry of these two firms combining. Also, with consumer survey data and substitution data for consumers, we could further analyze unilateral effects and estimate the full effect of changes in prices on consumers' actions as well. We could derive current demand and supply for consumers and suppliers and predict their changes after the merger. This would allow for an estimation of change in consumer surplus, which is an important determinant of anticompetitiveness. Further, learning more about related markets, such as the Continuous Glucose Monitoring, could help us determine the possible future effects of this merger. This is a developing market that could increase the elasticity of the blood glucose market and give buyers access to a substitute, therefore decreasing the merged firm's anticompetitive potential.

Thinking about mitigating factors such as possible competition would be important in estimating the market share of the merged firm and its possible anticompetitiveness. There could be medical device firms, specifically those in the Midwest and Pacific, who see the opportunity to enter the market.

Further breaking down the market into smaller geographic regions such as metropolitan areas would also show possible anticompetitive effects. The current geographic markets employed are diverse in population and income, so the effect of the merger in more rural areas is unclear.

Appendix

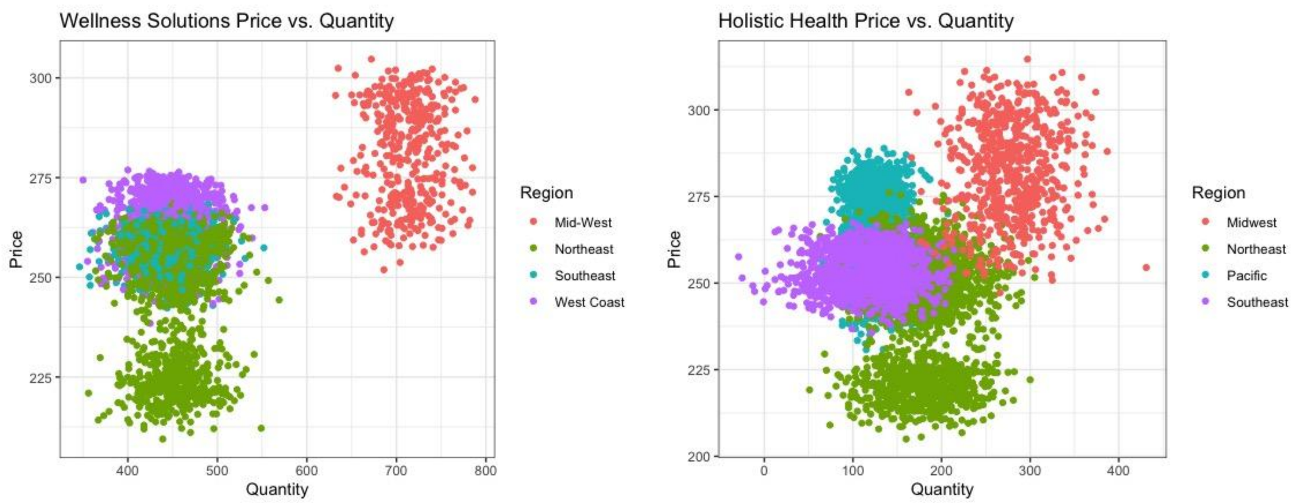

Figure 1

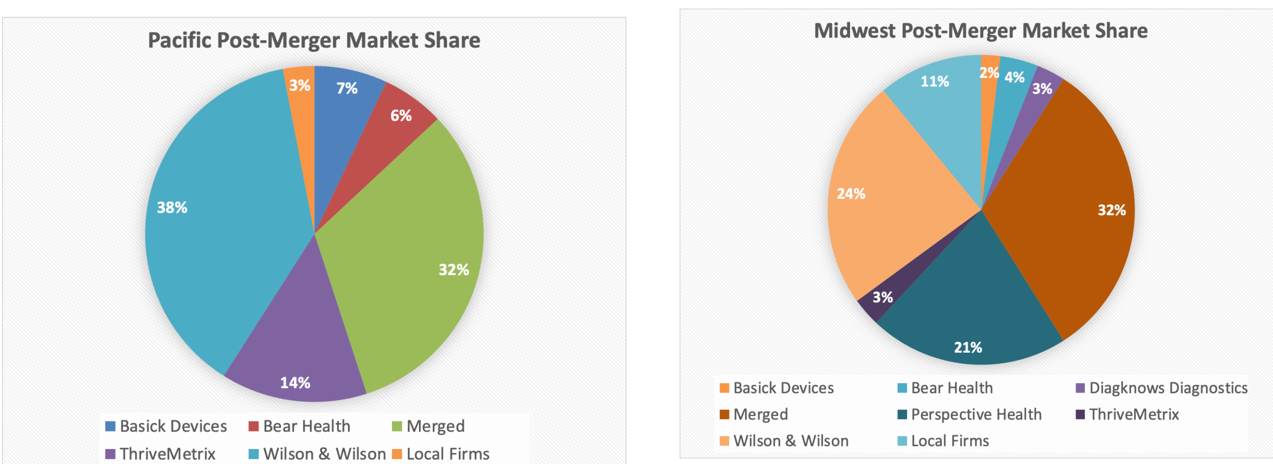

Figure 2

HHI for Each Region

	Pacific Market	Midwest Market	Southeast Market	Northeast Market
Pre-Merger	2317.308	1586	1051.88	918
Post-Merger	2757.14	2090	1231.515	998
Difference	**439.832**	**504**	179.635	80

Figure 3

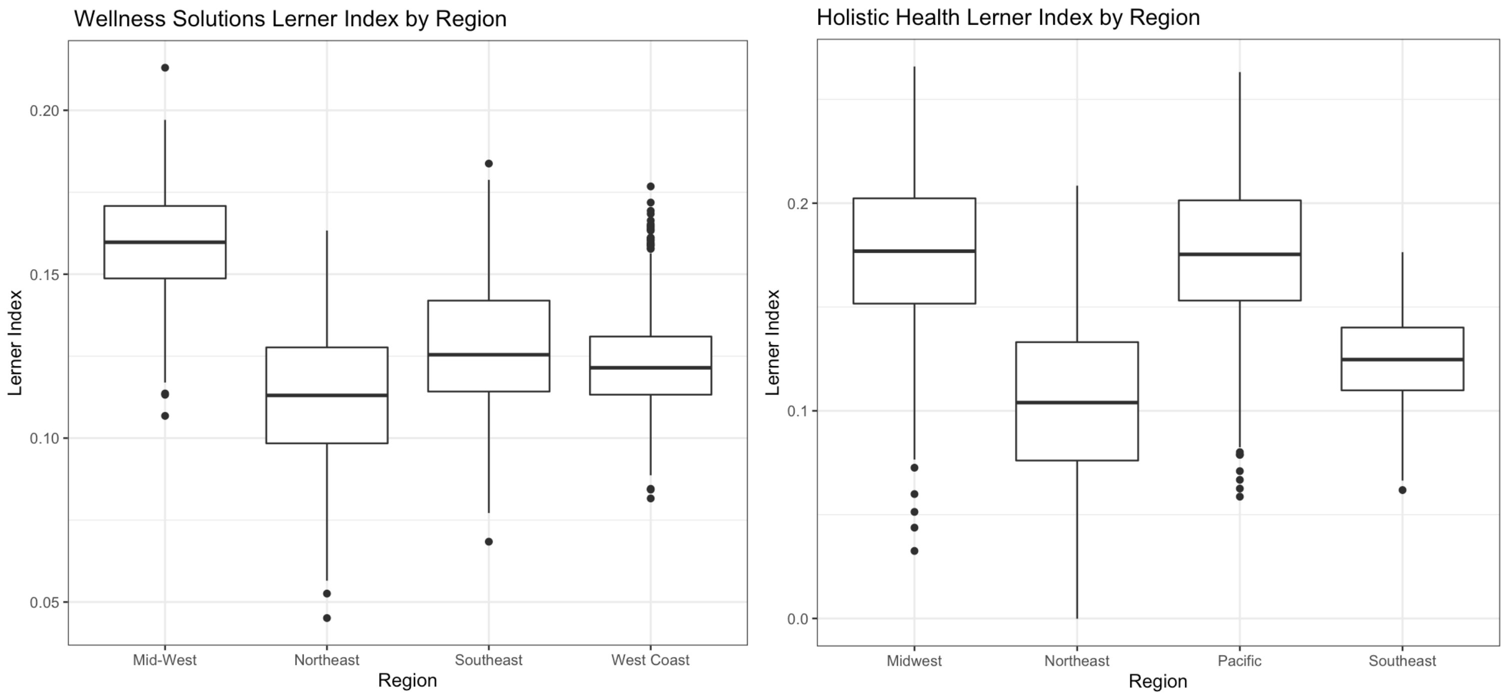

Figure 4

Figure 5