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Executive Summary

Hebe, Inc. is a start-up company that has designed and plans to develop and market dental instruments for consumer use. Hebe's principals have researched many issues pertaining to oral hygiene and they have arrived at the conclusion that the greatest need for its products lies with children. A massive potential market base exists for emancipated oral hygiene products. The serviceable available market is over 40 million children who lack the appropriate product to clean their teeth. It is estimated that tooth decay affects approximately 25% of American children aged 2-5 years old, and 50% of those aged 12-15 years. Tooth decay remains the number one chronic disease among children ages 5-18 with approximately 59% being affected by the disease. Over 90% of all complications involving current oral hygiene products are related to difficulties associated with manual dexterity issues faced by children and the subsequent reliance on parents to be responsible for their children's oral hygiene, virtually all of which could be avoided with Hebe's technology.

The principals of Hebe have developed and are in the process of patenting a revolutionary device, Safi, which will remove the barrier of manual dexterity from oral hygiene. The patent pending device involves filling an inhaler canister with chemicals that aid in the protection of oral hygiene. The child then runs their teeth over the device, where micro bristles scrap away plaque. A demo of the product can be viewed at http://www.hebetechnology.com/safihome.

The key element in Hebe's sales strategy is to market its technology to both those performing the procedure as well as to those on which the procedure will be performed. Once research data and publicity have been generated, the sales force will step in to encourage the initial investment in Safi, creating a "demand push."

Safi will succeed because it incorporates the best attributes of its competitors with never seen before features into one, affordable package. A few powerful and entrenched corporations dictate the terms of business within the oral hygiene market. In order to overcome the resistance of these major players, Hebe will need access to equity, a strong name brand, significant marketing budget, and manufacturing assemblies that rival our competitors.

Hebe Technology projects the gross margins to be approximately 30 -35% percent. Sales projections for Year 1 are at $5,000,000 increasing to $10,000,000 in Year 2, $15,000,000 in Year 3, $20,000,000 in year 4, and $25,000,000 in year 5.

The Company

Hebe, Inc. is a start-up company that has designed and plans to develop and market dental instruments for consumer use. Hebe's principals have researched many issues pertaining to oral hygiene and they have arrived at the conclusion that the greatest need for its products lies with children. Building on this research, the principals have designed a unique method of managing the chronic disease called dental cavies. The primary demographic is children between the ages of 1 to 7 years old. However, the principals believe that expansion to all other demographic groups is an eventuality.

Current consumer oral hygiene products, including toothbrushes, chewing sticks and floss, all require the manual dexterity of an 8 year old to properly utilize them1. This leaves over 40 million children without a way to independently clean their own teeth2. Subsequently, this market failure has forced parents to become the driving impetus in the maintenance of their children's oral hygiene care, which is a task most parents are not fulfilling. The principals have developed a product called Safi, which utilizes an aerosolized oral hygiene spray, an enclosed actuator, and a spray containment unit to accomplish effective teeth cleansing without requiring the user to have the manual dexterity of an 8 year old child.

Using Safi, Hebe plans to take advantage of the opportunities for market development and penetration in the field of emancipated oral hygiene products in which demand is high but supply is nonexistent.

Market Potential

A massive potential market base exists for emancipated oral hygiene products. The total addressable market, in the United States, is 300 million people. The serviceable available market is over 40 million children who lack the appropriate product to clean their teeth. The serviceable obtainable market is 3 million children over a three year period. The consequences of this market failure is dramatic. It is estimated that tooth decay affects approximately 25% of American children aged 2-5 years old, and 50% of those aged 12-15 years3. Tooth decay remains the number one chronic disease among children ages 5-18 with approximately 59% being affected by the disease4. The effects of the disease are not only felt personally, but also economically and socially. American children are losing "more than 51 million hours of school each year due to dental related diseases"4. Globally, tooth decay is "the most common childhood disease and in most industrialized countries it affects 60-90% of schoolchildren"3. The cost of treating tooth decay is on the rise as it is currently the "fourth most expensive disease to treat in most industrialized countries."
There is no alternative to the current market leaders (toothbrush and chewing stick) in oral hygiene for children. This gap in the market place has affected the way dental practitioners advise parents. Dental practitioners direct parents to: 1) brush your children's teeth or 2) supervise the act as your child brushes their teeth. In both directives, dental practitioners discount the obstacles parents must overcome to follow their advice. The directive asking parents to supervise is especially flawed because the vast majority of parents are not trained dental practitioners, so if they do supervise their children they wouldn't be able to determine whether a child's technique is poor or satisfactory. The directive asking parents to do the brushing for their children relies of fantastical notions of children obeying their parents without resistance. For example, a mother with the screen name "Momo" was so desperate to find a way to comply with the first directive, she wrote this on the Berkeley Parents Network:

> Sept 2008:
>
> We are having a difficult time brushing our 18 month olds teeth. He never really liked to brush but now he just refuses to open his mouth. We typically try this right before bedtime. He watches me brush my teeth and then I attempt to brush his. Any advice about brushing toddler's teeth would be greatly appreciated! We used to use a finger brush, then changed to a toddler brush when he seemed to not like the finger brush anymore. I am just worried about caries/cavities and plaque. Help! --Momo

In an attempt to aid this mother, the community messaged her a host of suggestions. Most of them offered solutions that "sold" the idea of tooth brushing to their children. This included singing songs, playing dentist, and allowing the children to roam around the house with the toothbrush in their mouths. These recommendations demand a great deal of time, which many parents cannot afford, especially in the evenings. This is one of the reasons why tooth decay continues to be the most chronic childhood disease. Why bother utilizing so much time and energy for a disease that is not an immediate concern? As parents become lax to the idea of consistent tooth brushing, the children mirror the same perspective. So, when children gain the ability to manipulate a toothbrush they have already established a bias against tooth brushing. This bias creates a belief that oral hygiene is a cosmetic concern rather than a health issue; something you can take lightly and do occasionally like makeup.

Over 90% of all complications involving current oral hygiene products are related to difficulties associated with manual dexterity issues faced by children and the subsequent reliance on parents to be responsible for their children's oral hygiene, virtually all of which could be avoided with Hebe's technology. In the former case, it is a case of biology. However, in the latter case, it is a case of

sociological and psychological factors that cause parents to fail as the primary actors in their children's oral hygiene. Some will argue that improving their knowledge is the simple solution. However, "in terms of oral health promotion and intervention there appears to be little evidence that changing people's attitudes, beliefs or knowledge brings around long term-changes in oral health outcomes"6. Therefore, a quantum societal shift needs to happen involving every area of life before parents are effective advocates of their children's oral hygiene. In a recent study, co-authored by Trubey, Moore, and Chestnutt, they discovered the following factors contribute to how well parents perform their tooth brushing duties: 1) stability of day-to-day home routines, 2) the perceived immediacy of benefits of tooth brushing, and 3) perceptions of how often parents brush their children's teeth5. These factors are byproducts of the current reality of parenting in the 21st century: 1) hectic evening hours do to changing work patterns and other parental distractions, 2) the spread of myopia throughout society, and 3) false comparisons to others dictating judgments5. Wholesale change of society won't happen just to accommodate the oral hygiene concerns of children. But, there is an alternative solution: Safi. The principals created Safi to eliminate the biological hurdle for a child to oversee their oral hygiene routine, but also to mitigate the limitations parents face in overseeing their children's oral hygiene. Safi is the solution that provides the fastest way to overcome these hurdles to effective childhood oral hygiene.

Technology and Science

The principals have developed and are in the process of patenting a revolutionary device, Safi, which will remove the barrier of manual dexterity from oral hygiene. The patent pending device involves filling an inhaler canister with chemicals that aid in the protection of oral hygiene. The formula will include elements in everyday use like fluoride, mouthwash, and teeth whitening agents. Once the canister is filled with the necessary mixture, it is placed into the housing unit of the device. A child then places their upper teeth into the spray containment unit and activates the actuator by pushing down on of the back of the device, which is the bottom of the canister. This motion forces a predetermined amount of the chemical mixture out of the canister and into the spray containment unit. The aerosolized mixture then flows through tiny vein like structures that open up in strategically placed areas of the spray containment unit, applying the mixture directly to the teeth. The child then runs their teeth over the device, where micro bristles scrap away plaque. After the procedure is completed for the upper teeth, the spray containment unit is reapplied, this time facing in the opposite direction, and the consumer places the spray containment unit on their bottom teeth. The same procedure is followed for the bottom teeth. Through the use of this patent pending device, children will be able to avoid the most troublesome and complication ridden aspect of current oral hygiene care: manual manipulation of oral hygiene tools. The general size of the device is small and portable, so application of the chemical mixture can occur anywhere and at any time.

Sales Strategy

The key element in Hebe's strategy is to market its technology to both those performing the procedure as well as to those on which the procedure will be performed. Once research data and publicity have been generated, the sales force will step in to encourage the initial investment in Safi, creating a "demand push." After this investment has been made, a "demand pull" will be generated for accessory components required for customers to apply to Safi to increase its aesthetic appeal. This will be done through marketing directly to customers. Examples of accessory components include: 1) multi-flavored

chemical mixtures, 2) add-ons of licensed animated TV or movie characters, and 3) add-ons of licensed athletic brands.

The sales team will begin with six seasoned sales personnel and swell to forty-four members by Year 5. The sales team will work closely with family friendly entities, who specialize in providing ancillary services and products, in order to promote the technology to children and parents. They will buy advertising space in local magazines or newspapers that lists activities for children. They will set up a booth at local festivals to provide live demonstrations of the product. They will make a concerted effort to target mothers, because eighty percent of household spending are controlled by mothers. This means buying advertising in magazines and websites that cater to the concerns of mothers. The sales team will also make a forceful attempt to incorporate Safi into movies and television shows watched by children for the purpose of using "pester power" to increase sales. Importantly, they will use the internet to educate and market Safi, not as a tool but a lifelong companion. This connection will give rise to a community of users, who will share experiences and provide novel ideas on how to best use Safi. They will utilize gorilla marketing techniques by showing how easily and effortlessly people can take care of their oral hygiene needs even in dangerous situations like skydiving or motocross freestyle.

Pediatricians and Dentists will be trained by sales members at their practices. Each doctor will have in depth training sessions led by a sales representative educated in how Safi is the best solution for eliminating tooth decay. They will be left with free samples of Safi and its accessories, which will be passed along to their patients. The key is to get doctors to become vocal supporters of Safi. The principals believe that pediatricians and dentists are natural "evangelists" for Safi. With their high credibility ratings, their support will enable Safi to find its way into the hands of a larger user cohort.

The principals also plan to partner with government entities, like Medicaid, to offer Safi as a way of lowering the costs associated with providing dental care to the nation's poorest children. From 2005 to 2007, Medicare expenditures climbed from $300 billion to over $400 billion7. This increase is primarily the result of an increase in inpatient visitations. In the case of tooth decay, it is about ten times more expensive to provide inpatient dental care for caries-related conditions than to provide preventative care8. Especially troubling is that "approximately 38 percent of Medicaid eligible children received a dental service in 2008, approximately 34 percent of Medicaid eligible children received preventative dental services, and approximately 19 percent of Medicaid eligible children received dental treatment services."9 The principals argue that Safi can shield those children that are not utilizing Medicaid. Without the obstacles that exist with toothbrushes, children will be able to protect themselves from tooth decay even though they are not using the services provided by Medicaid. As Safi gains in popularity, it will be utilized by the children who do use Medicaid's services. They will be shielded as well and thus they will utilize even less of Medicaid's services. This will allow Medicaid to reallocate funds to other areas of concern, thus saving the government billions of dollars in services.

Competitive Advantage

Safi will succeed because it incorporates the best attributes of its competitors with never seen before features into one, affordable package. The oral hygiene industry has three major players: Gillette, Colgate-Palmolive, and Johnson & Johnson. They are responsible for the two major devices in the oral hygiene market. First, the modern tooth brush. Second, the ancient chewing stick. Studies have shown that the efficiency of each product is the same, even though the chewing stick is an ancient tool. The

principals argue that each of the major players suffer from the hurdles to childhood oral hygiene discussed in previous sections. In the case of the chewing stick, it stumbles also due to its lack of popularity in the industrialized world and the fact a person must use a chewing stick for 15 minutes to get the same effectiveness as a toothbrush.

There is a smaller player to the market called Blizzident. It is a mouth piece fitted with bristles. This device incorporates similar technology as Safi, but the principals believe that the following issues do not make it a legitimate alternative: 1) a visit to the dentist is required to get a molding of a customer's teeth, 2) the product takes weeks to produce and ship out, and 3) the cost to the customer is $300.

The following is a list of competitive advantages that Safi has over toothbrushes in the oral hygiene market: 1) it will provide the same benefits and cost about the same as buying a toothbrush, a tube of toothpaste, and a bottle of mouthwash, 2) no water is needed, 3) duration of use is under 60 seconds, 4) removes threat of a child swallowing fluoride, 5) no risk of bathroom particulate contamination, 6) limited manual dexterity needed, 7) no damage to clothes due to toothpaste staining and 8) portable and ergonomic size.

Commercialization Strategy

The principals of Hebe envision it becoming a high-potential venture. The principals are not particularly concerned with retaining complete control. A future where control is shared amongst them and equity is not only acceptable but welcomed. This ties into Hebe's core philosophy that human frailties are opportunities for success and capitalizing on these opportunities requires a critical mass of talented people. The company will need talented individuals because the harsh reality is that the company's main product, Safi, threatens to unsettle an industry that is oligarchical in nature. A few powerful and entrenched corporations dictate the terms of business within the oral hygiene market. In order to overcome the resistance of these major players, Hebe will need access to equity, a strong name brand, significant marketing budget, and manufacturing assemblies that rival our competitors. Those assets will be very difficult to acquire, but it may not be necessary to do so. The stature of our competitors in the industry is a major weakness for them. With big market shares in the toothbrush industry, charging forward to create an aerosol teeth cleaning device that would inevitably cannibalize their toothbrush sales would be a difficult decision to make. The principals have nothing to lose following the aerosol based teeth cleaning path, which allows them to proceed without hesitation and never lose focus on their end goal of ending dental caries by replacing all products that require the manual dexterity of an eight year old.

Hebe's main long term objective is acquisition by one of the major players in the industry or initial public offering. The financing methods used to achieve this ambitious goal is the following: 1) sweat equity and owner's equity, 2) a federal R&D partnership, 3) seed financing from venture capitalists and angels, 4) equity investment from a Fortune 500 company, 5) second round financing from venture capitalists, 6) a private placement, 7) a line of credit from bank, 8) profits plowed back into the company, and 8) initial public offering or acquisition.

The Team

John Harlepas, founder and CEO, is a graduate of the University of Maryland and Prince Georges Community College. He has worked with the United States Department of Defense and the Department of Veterans' Affairs. He plans to enter dental school in the Fall of 2016, which will allow him to gain access to technical knowledge neccessary for the production of "Safi."

Adriana Kao's eleven years of professional experience crosses the business and nonprofit sectors, from marketing in a private firm in Ecuador, fundraising in nonprofits in DC to brand management in a multinational corporation. Adriana is passionate about delivering value of a company and its products to consumers and helping shape their experience with a brand. Adriana brings rich cross-cultural and global understanding, as she was born and raised in Ecuador to Taiwanese parents and subsequently pursued higher education in the United States. Currently, Adriana is obtaining an MBA from the University Of Maryland Smith School Of Business, with a focus in General Management.

Melissa Marquez received an associate's degree in Biology from Prince George's Community College. Currently, she is completing her bachelor of science in Evolution & Ecology while also working on a minor in Technology Entrepreneurship from the University of Maryland.

As a member of the National Society of Collegiate Scholars, Melissa held the leadership position of Vice President of Community Service. In that capacity, she organized recruiting drives to find new volunteers for the many smaller organizations that the NSCS sponsored. In addition, she coordinated efforts between various NSCS sponsored organizations and non-profit organizations.

Melissa's experience as a laboratory technician, at Prince George's Community College, places her in a position to provide chemical expertise for Hebe Technology. Her knowledge and expertise is vital in completing work on an aerosolized chemical cleaning agent, which will be used within the canister of our primary product "Safi."

Sean Brown is a freshman at the University of Maryland at College Park. He is majoring in computer science and electrical engineering.

In the past, he has consulted with Johns Hopkins University to create applications that facilitate the transition from paper records to electronic records. His expertise in mobile applications development and his experience in the healthcare industry make him an excellent resource for Hebe Technology.

He is currently responsible for developing the mobile application that will accompany "Safi." The application will allow users or third parties to access real time information on the oral care habits of the children using "Safi."

Financials

Hebe Technology projects the gross margins to be approximately 30 -35% percent. Sales projections for Year 1 are at $5,000,000 increasing to 10,000,000 in Year 2, $15,000,000 in Year 3, $20,000,000 in year 4, and $25,000,000 in year 5. Cash flow analysis, balance sheet, break-even analysis, and other financial details appear below.

Financials: Assumptions

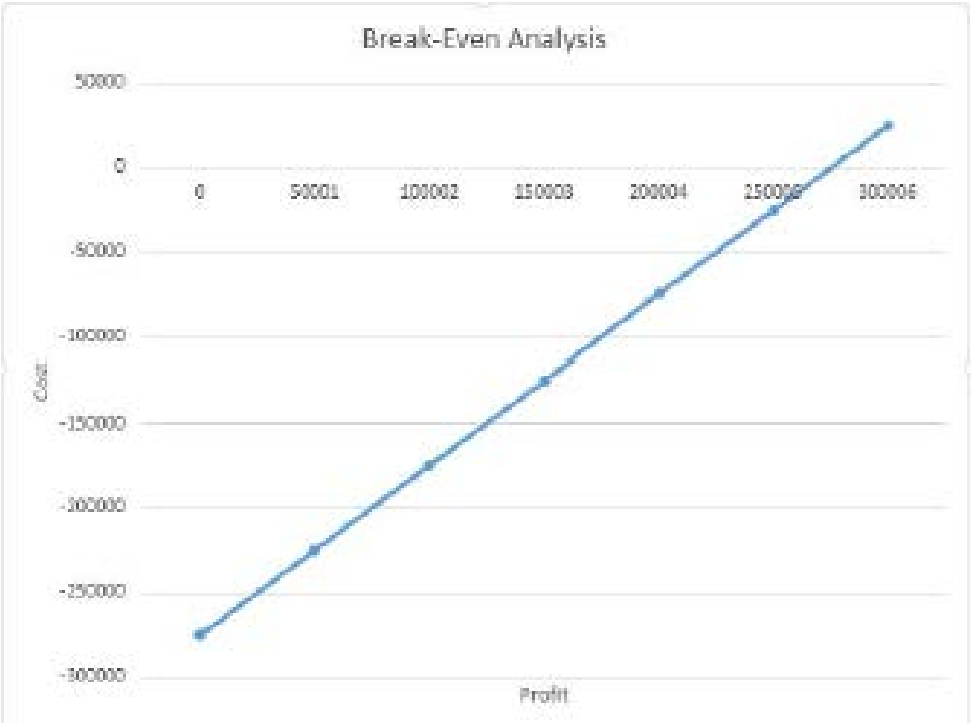
General assumptions for this plan are on the following table.

GENERAL ASSUMPTIONS			
	YEAR 1	YEAR 2	YEAR 3
Plan Month	1	2	3
Current Interest Rate	8.00%	8.00%	8.00%
Long-term Interest Rate	8.00%	8.00%	8.00%
Tax Rate	25.42%	25.00%	25.42%
Other	0	0	0

Financials: Break-Even Analysis

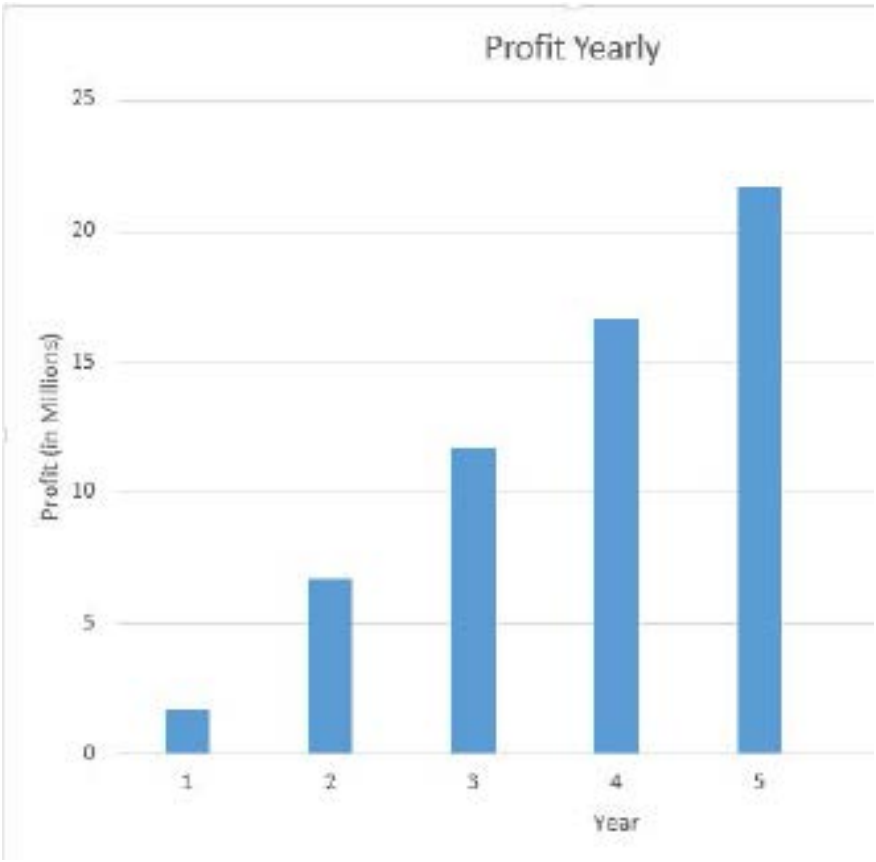
The following table and chart illustrate our break-even analysis. With our fixed costs estimate of approximately $94,000 per month, operating on average at a 50% profit margin, we will need to sell 41,667 to break-even in a month. Fixed costs include our warehouse lease, manufacturing contract, vehicle leases, utilities, insurance, payroll, and an estimation of other running costs.

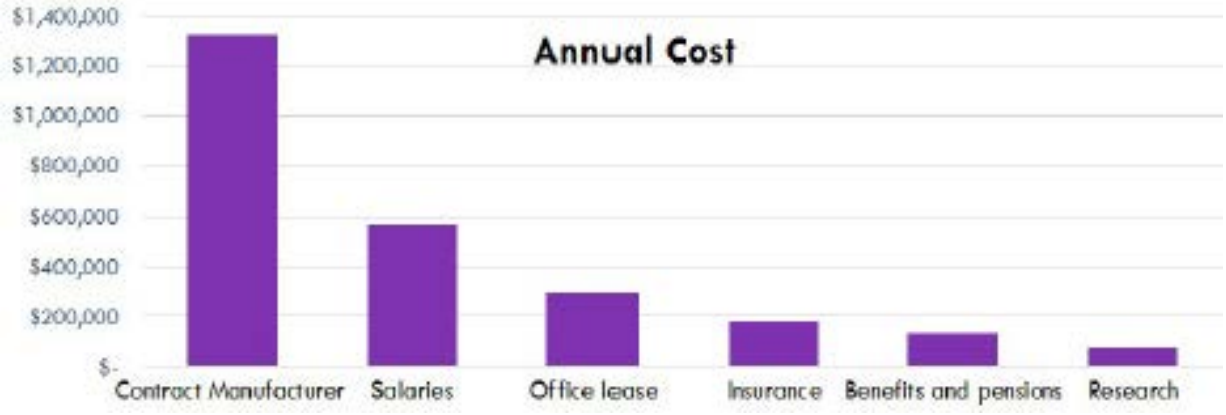
Break-Even Analysis	
Monthly Revenue Break-Even	$275,000
Assumptions:	
Average Percent Variable Cost	66 %
Estimated Monthly Fixed Cost	$93,500



Financials: Projected Profit-Loss

The following table and charts show the projected profit and loss.


Profit Yearly
Profit (in Millions)
25
20
15
10
5
0
1
2
3
4
5
Year


Annual Cost
$1,400,000
$1,200,000
$1,000,000
$800,000
$600,000
$400,000
$200,000
$-
Contract Manufacturer
Salaries
Office lease
Insurance
Benefits and pensions
Research

HEBE Technology
Pro-Forma Balance Sheet
As of midnight on this date: May 31, 2016

ASSETS				**LIABILITIES & STOCKHOLDERS' EQUITY**	
Current assets				**Current liabilities**	
Cash & Cash Equivalents	24500			Notes payable	10000
Temporary Investments	40000			Accounts payable	119500
Accounts Receivable - net	38000			Wages payable	400
Inventory	350000			Accrued expenses	1500
Prepaid Expenses	11200			Customer deposits	2000
Total Current Assets		463700		Total current liabilities	133400
Investments (long-term)		10000			
Property, plant & equipment				**Long-Term liabilities**	
Land	12000			Notes	40000
Land improvements	10123			Bonds	0
Buildings	102000			Total long-term liabilitie	40000
Equipment	25000				
Furniture & Fixtures	100000				
Subtotal		249123	TOTAL LIABILITIES		173400
Less: Accum depreciation		187500			
Prop, plant, & Equipment -		61623			
Intangible assets				STOCKHOLDERS' EQUITY	
Goodwill	0			Common stock	50000
Trade names	0			Retained earnings	304923
Licenses	50000			Less: Treasury stock	1000
Total intangible assets		50000	TOTAL STOCKHOLDERS' EQUITY		353923
Other Assets		2000			
Total Assets		587323	**TOTAL LIAB & STKHRS' EQUITY**		527323

Footnotes

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5) Trubey, Rob, Simon Moore, and Ivor Chestnutt. "Parents' Reasons for Brushing or Not Brushing Their Child's Teeth: A Qualitative Study. “International Journal of Pediatric Dentistry 24 (2014): 110. Print.
6) Trubey, Rob, Simon Moore, and Ivor Chestnutt. "Parents' Reasons for Brushing or Not Brushing Their Child's Teeth: A Qualitative Study. “International Journal of Pediatric Dentistry 24 (2014): 105. Print.
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   Figure 22. Web. 1 Mar. 2015. http://www.cdc.gov/nchs/data/hus/hus09.pdf
8) "Keep Kids Smiling: Promoting Oral Health." Medicaid. 10 Sept. 2013. Web. 11 Mar. 2015. Pg. 12. http://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Benefits/Downloads/Keep-KidsSmiling.pdf
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