

Final Exam Case Study PHRD 312
April 29, 2021

Background

Downtown Pharmacy is an independent community pharmacy servicing the local Baltimore Metropolitan area, and has close ties with several local Baltimore Health Systems. The mission of Downtown Pharmacy is to prevent recent hospital discharged Medicare patients from unnecessary readmission to the hospital due to a medication-related event. The pharmacy will achieve this by providing personalized pharmaceutical care, promoting the safe use of medications, and providing patients with the necessary tools and direct them to resources needed to improve their quality of health. The pharmacy will achieve this by providing services, such as adherence counseling, adherence/refill reminders, and medication education to Medicare patients through the unique "We CARE" program offered as a service of the pharmacy. It is the duty of the Downtown Pharmacy to ensure all patients, especially every Medicare patient receives individualized attention in order to keep him or her healthy. The Downtown team plans to use close coordination of care and in-depth patient profiling to generate patient models to help those most in need of interventions and support. Use of Tele-Pharmacy contacts and their APP will assist with this coordination. The pharmacy will be open Monday through Saturday, closed Sunday.

The Downtown pharmacy is a revamped version of a very successful traditional community pharmacy owned by the husband and wife pharmacy team of Nathan and Norma Lee Schwartz located immediately outside Baltimore in Glen Burnie. The new Downtown pharmacy will be owned by Nathan and Norma Lee and their son and daughter, Steven and Susan. It will be managed by Susan and Steven, who are pharmacists. Drs. Steven and Susan Schwartz, graduated from The Notre Dame of Maryland University School of Pharmacy. The Downtown pharmacy will be located at 4253 Greenmount Avenue in Baltimore, Maryland. in an office building with 24 physician practices who are affiliated with some of the local hospitals in Baltimore. Downtown is in close proximity to several bus lines and light rail stations: intercepting patients from Sinai Hospital, The Johns Hopkins Hospital, MedStar Union Memorial, MedStar Good Samaritan, and Mercy Medical Center. Downtown Pharmacy will serve Medicare patients discharged from these hospitals, as well as other walk-in patients. This unique outpatient pharmacy will contract with these hospitals so that all Medicare outpatients from these hospitals are encouraged to use Downtown Pharmacy to have their prescriptions filled and receive the excellent services Downtown offers. Patients then have the option to sign up for the We Care Program where they will receive further follow-up counseling on their medication regimen as prescribed by their primary care provider. According to the United States Census Bureau reported in 2019, the city of Baltimore was estimated to have 821,312 people, of which 18% are age 65 and older and are thereby more likely to be enrolled under Medicare. This is a very large population of individuals that Downtown Pharmacy will target, and, potentially enroll in their program.

Both Steven and Susan Schwartz are recent graduates (Doctor of Pharmacy) from pharmacy school. Steven graduated 5 years ago and Susan 3 years ago. They have been practicing as hospital pharmacists in Baltimore, at two different hospitals, but have also worked part-time at their parents' pharmacy and have gained community pharmacy experience.

The We Care Program states that Medicare outpatients coming from said hospitals will fill their medications with Downtown Pharmacy and agree to return to the pharmacy for all refills. The We Care Program requires patients who sign up to attend a 3-month and 6-month check-ins with the pharmacist on duty. When patients are out of refills they are notified beforehand to contact their physician by the Downtown Pharmacy team. They will have a refill or approval to discontinue their medication(s) from

their prescriber. First-time We Care program patients will have an individual counseling appointment with the pharmacist and receive a pillbox, insulin log, medication calendar, etc. so patients will have an easier time adhering to their medications. In addition, they will receive a free subscription to Downtown We Care app.

The pharmacy plans to build relationships with hospitals, physicians, and local companies in order to gain referrals and build our business. The pharmacy will contract with insurance companies to be on their list of acceptable pharmacies so patients will be more likely to use our pharmacy rather than any other competing pharmacy.

At Downtown Pharmacy, our duty is to reduce hospital readmission rates, promote the safe use of medications, and also equip patients with all the necessary tools needed to improve their quality of health. Patient safety and medication adherence is the number one priority of the We Care Program at Downtown Pharmacy. Our focus is to keep patients, specifically Medicare patients, out of the hospital. This will be our promise to the hospitals we build relationships with and we will do everything we can to ensure lowered readmission rates over time. Keeping patients out of the hospital is not only the main goal for the patient; it has now become the goal for the hospital's financial viability, and by incorporating Downtown Pharmacy's services into the Baltimore city area, we will help the state of Maryland reduce any penalties or fines induced by the Center of Medicare and Medicaid Services (CMS).

Accounting and Economic Breakeven Formulas

- The accounting breakeven assumes zero profit
- The economic breakeven assumes profit

Accounting Breakeven Calculation:

$$\begin{aligned} \text{Total revenue} &= \text{Total costs} \\ \text{Price } v &= \text{FC} + \text{VCR } v \\ Pv - \text{VCR}v &= \text{FC} \\ v(P - \text{VCR}) &= \text{FC} \\ v &= \frac{\text{FC}}{(P - \text{VCR})} \end{aligned}$$

Economic Breakeven Calculation

$$\begin{aligned} \text{Total revenue} &= \text{Total costs} + \text{Profit} \\ \text{Price } v &= \text{FC} + \text{VCR } v + \text{Profit} \\ Pv - \text{VCR}v &= \text{FC} + \text{Profit} \\ v(P - \text{VCR}) &= \text{FC} + \text{Profit} \\ v &= \frac{\text{FC} + \text{Profit}}{(P - \text{VCR})} \end{aligned}$$

P = Price V = volume FC = Fixed Costs VCR = Variable Cost Rate

Downtown Pharmacy Budget Analysis

Quantity Cost Total NOTATIONS

EXPENSES

Personnel Budget					
Pharmacist		3.5		\$575,000.00	includes benefits
Pharmacy Technicians		4		\$186,700.00	includes benefits
Personnel Totals			TOTAL	\$761,700.00	includes benefits
Office Supplies & Software					
Chairs		2	\$65.30	\$130.60	
Desk		1	\$80.00	\$80.00	
Desktop (Lenovo 2021)		3	\$798.00	\$2,394.00	
Epson WorkForce Inkjet Multifunction Printer		3	\$252.00	\$756.00	
Label Paper (1 pack)		1	\$12.49	\$12.49	
Register Roll Paper (pack of 3)		1	\$7.47	\$7.47	
Printer Paper (1 pack)		1	\$14.95	\$14.95	
Bic Velocity Retractable Pens (1 pack)		1	\$10.38	\$10.38	
Swingline Automatic Stapler (1)		2	\$24.99	\$49.98	
3 Hole Puncher (1)		1	\$7.28	\$7.28	
3 Ring Binders (3")		5	\$6.97	\$34.85	
File Cabinet		2	\$69.82	\$139.64	
Class II Digital Safe		1	\$147.97	\$147.97	
Cash Register (SAM4s ER-285M)		2	\$441.85	\$883.70	
Pharmacy Bays		5	\$75.00	\$375.00	
Phone (Uniden UN-1380BK)		4	\$61.00	\$244.00	
Large Refrigerator		1	\$129.00	\$129.00	
Mini Refrigerator		1	\$69.00	\$69.00	
Prescription Bottles + Lids (case of 400)		1	\$25.80	\$25.80	
Spatula		3	\$12.95	\$38.85	
Ointment Slab		2	\$39.99	\$79.98	
Mortar and Pestle		2	\$41.99	\$83.98	
Graduated Cylinders		4	\$24.19	\$96.76	
Electronic Balance		1	\$560.00	\$560.00	
McKesson PharmacyRx Software		1		\$21,800.00	
Trash Cans		4	\$38.00	\$152.00	
First Aid Kit		1	\$9.99	\$9.99	
Office Supplies and Software Totals:			TOTAL	\$28,333.58	

WAITING AREA/LOBBY			
Security Camera (DCS-932L)	6	\$75.00	\$450.00
Couches for Waiting Area	3	\$167.00	\$501.00
Padded Folding Chairs	8	\$60.00	\$480.00
Blood Pressure Monitor	1	\$240.43	\$240.43
Waiting Area Lobby Total:	TOTAL		\$1,671.42
ADVERTISEMENT			
Advertisement (monthly)	12	\$500.00	\$6,000.00
Advertisement Total	TOTAL		\$6,000.00
INSURANCE			
Store and Malpractice	1	\$5,000.00	\$5,000.00
Insurance Total	TOTAL		\$5,000.00
ADDITIONAL EXPENSES OVERHEAD			
Rent (annual)			\$22,300.00
Electricity (per year)			\$6,000.00
Water and Maintenance (year)			\$4,200.00
Overhead Expenses Total:	TOTAL		\$32,500.00

ADDITIONAL PRESCRIPTION COMPONENTS	
Average Cost of Medications per prescription	\$64.00
Average cost of medication vial and label per Rx	\$0.75
Avg. cost of patient educ. materials per RX	\$2.25
Avg. Dispensing fee per prescription	\$19.00