



## Outcomes Innovative Pharmacy Grant - Final Report

### Applicant Information

|                             |                                                                                                                  |
|-----------------------------|------------------------------------------------------------------------------------------------------------------|
| <b>Applicant Name</b>       | Noemy Penafiel                                                                                                   |
| <b>Project Title</b>        | Expanding Clinical Services: Evaluation of Pharmacist-Led Remote Blood Pressure Monitoring in Community Pharmacy |
| <b>Funding Amount</b>       | \$2,000                                                                                                          |
| <b>Funding Amount Spent</b> | \$1815                                                                                                           |

### Outcomes Innovative Pharmacy Grant Feedback

*This section is intended for IPA staff and the IPA Foundation to gain a better understanding of the grant webpage, grant application, and feedback provided. Please be as detailed as possible with your responses so we can improve the outcomes grant process.*

**The grant webpage was easy to find on the IPA website:**

☒ Strongly Agree    ☐ Agree    ☐ Disagree    ☐ Strongly Disagree

**The information on the grant webpage was organized well:**

☒ Strongly Agree    ☐ Agree    ☐ Disagree    ☐ Strongly Disagree

**The grant webpage provided a detailed overview of the requirements that must be met throughout the course of the project timeline:**

☒ Strongly Agree    ☐ Agree    ☐ Disagree    ☐ Strongly Disagree

**The grant webpage provided a detailed description of the grant cycle (including the deadlines for applications, interim reports, final reports, and presentations):**

☒ Strongly Agree    ☐ Agree    ☐ Disagree    ☐ Strongly Disagree

**The grant webpage provided a detailed overview of the application process:**

☒ Strongly Agree    ☐ Agree    ☐ Disagree    ☐ Strongly Disagree

**The grant webpage provided a detailed overview of the review procedure following application:**

☒ Strongly Agree    ☐ Agree    ☐ Disagree    ☐ Strongly Disagree

**If you ranked any of the above as “Disagree” or “Strongly Disagree,” please provide feedback on how we can improve the grant webpage:**



**The application form was organized well:**

☒ Strongly Agree    ☐ Agree    ☐ Disagree    ☐ Strongly Disagree

**The application form was user friendly:**

☒ Strongly Agree    ☐ Agree    ☐ Disagree    ☐ Strongly Disagree

**The application form was easy to understand:**

☒ Strongly Agree    ☐ Agree    ☐ Disagree    ☐ Strongly Disagree

**If you ranked any of the above as “Disagree” or “Strongly Disagree,” please provide feedback on how we can improve the grant application form:**

**Reviewers/evaluators provided constructive feedback throughout the application procedures, after reviewing the interim report, and when evaluating the poster presentation:**

☐ Strongly Agree    ☐ Agree    ☒ Disagree    ☐ Strongly Disagree

**Reviewers/evaluators were respectful and professional with their feedback throughout the application procedures, after reviewing the interim report, and when evaluating the poster presentation:**

☐ Strongly Agree    ☒ Agree    ☐ Disagree    ☐ Strongly Disagree

**If you ranked either of the above as “Disagree” or “Strongly Disagree,” please provide feedback on how we can improve the quality of feedback recipients receive:**

No feedback was provided by IPA representative after submission of the interim report

**Any questions I had regarding the grant (e.g., use of funds, requirements, application procedures, review procedures, interim reports, presentations, feedback, cycles, etc.) were answered in detail:**

☒ Strongly Agree    ☐ Agree    ☐ Disagree    ☐ Strongly Disagree

**Any questions I had regarding the grant (e.g., use of funds, requirements, application procedures, review procedures, interim reports, presentations, feedback, cycles, etc.) were answered in a timely manner:**

☒ Strongly Agree    ☐ Agree    ☐ Disagree    ☐ Strongly Disagree

**If you ranked either of the above as “Disagree” or “Strongly Disagree,” please provide feedback on how we can improve the quality of our responses to your questions regarding the outcomes grant:**



Please provide any additional information or feedback you think may be important for us to know regarding the outcomes grant:

### **Final Report**

- 1) Please describe the progress made towards meeting the goals and objectives of your project. Include results or outcomes if possible.

**1) *Describe the patient participation and pharmacist interventions provided with the remote patient monitoring (RPM) service***

- There was a low number of patients interested in participating in the RPM service
  - 37 patients were identified as eligible for the RPM service.
  - 15 patients enrolled in the program after screening and outreach
    - 5 patients completed one follow-up visit
    - 4 patients completed two or more follow-up visits
    - 6 patients discontinued participation before completing follow-up
- Follow up visits were based on clinical need.
  - 2 weeks for patients initiating new antihypertensive medication
  - One month for patients not meeting blood pressure goal

**2) *Describe the process and challenges encountered when implementing the RPM service***

- A report was generated through pioneer including inclusion criteria to identify potential eligible patients
- Enrolled patients were scheduled for an in-person appointment or had the option to schedule a call if meeting in person was an issue
- A large percentage of patients were interested in getting the blood pressure monitor through insurance, but were not interested in the RPM service
- Delays with getting BP prescription from providers, but under Standard of Care, the pharmacist could prescribe the BP monitor to minimize further delays

**3) *Explore billing opportunities for RPM and sustainability using basic financial analysis.***

- Medicaid represents the greatest billing opportunity with 4 successful claims for BP monitors and 2 MTM appointments
- Reimbursement amount varied by Medicaid subtype
- Incorrect billing information (specific modifiers) led to denied claims
- Major restriction for pharmacist to bill for Medicare and Commercial insurance
- Sustainability considerations include;
  - Blood pressure monitors to maximize revenue; McKesson was used for bulk purchases
  - Pharmacy residents and qualified technicians should be leveraged to lower cost associated with time
  - RPM platform cost



- 2) **Which, if any, of your goals and objectives were not achieved as intended? Please explain these and what impact you believe it has on the overall project success.**

All proposed goals were met

- 3) **Do you expect this project and its results to be sustainable at your practice and reproducible in other pharmacy settings? Do you anticipate any barriers to sustainability and/or reproducibility? Please explain.**

The sustainability of this project at our site is promising, primarily due to the presence of designated clinical pharmacists who can oversee patient care and ensure consistent monitoring. However, there are barriers that may affect long-term sustainability. One significant challenge is identifying an affordable remote patient monitoring (RPM) platform that can track blood pressure data and record patient interactions. The cost and usability of these platforms are crucial factors in maintaining the program while minimizing low technology literacy. For other pharmacies wishing to replicate this project, it is essential to have medical billing capabilities. Without the necessary infrastructure to bill for clinical services, reproducing the model and achieving similar outcomes may not be feasible.

- 4) **What impact will the outcomes of this project have on pharmacy practice in Iowa?**

As the standard of care continues to be adopted for assisting physicians with chronic care management, a foundation is being established to advocate for pharmacist provider status recognition in various insurance networks. The outcomes from this project have clearly demonstrated that pharmacists are capable of successfully monitoring blood pressure remotely. Additionally, pharmacists provided appropriate guidance to individuals seeking to lower their blood pressure, further highlighting their essential role in patient care.



### **Final Budget Report**

Based on the funded amount from the IPA Foundation, please complete the grant budget in the table format below. Grant budgets must include all costs as well as any matching funds or in-kind support. Please include items from the entire project interval (pre- and post- interim report)

| <b>Budget Line Items</b>                                                                                                                     | <b>Total Costs</b> |
|----------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| Methodological consultation and data analysis support - University of Iowa College of Pharmacy - Department of Pharmacy Practice and Science | \$1000             |
| Omron 3 Series_or similar upper arm BP Monitor_                                                                                              | \$495<br>(33x15)   |
| Survey Gift cards                                                                                                                            | \$120<br>(30 x 4)  |
| Poster Printing                                                                                                                              | \$100              |
| Misc accessories                                                                                                                             | \$100              |
|                                                                                                                                              |                    |
| <b>Estimated TOTAL</b>                                                                                                                       | <b>\$1815</b>      |

### **Summary of Project**

**Please provide a summary of your project to be published in the Journal of IPA. (300 word maximum)**

This project evaluated the implementation of a pharmacist-led remote blood pressure monitoring (RBPM) service at an independent community pharmacy, described pharmacist interventions, and explored billing opportunities and financial sustainability.

Eligible patients were adults with a diagnosis of hypertension who were prescribed at least one antihypertensive medication and had access to a smartphone. Enrolled patients received a Bluetooth-enabled blood pressure monitor and education on proper home blood pressure monitoring techniques. Blood pressure readings were transmitted electronically through a mobile application and reviewed by pharmacists. Follow-up visits, conducted by phone or in person, focused on blood pressure assessment, medication adherence, tolerability and lifestyle counseling. Follow-up frequency was individualized based on patient needs and blood pressure control.

A total of 37 patients were identified as eligible for participation. Of these, 15 enrolled in the service, while 22 were excluded due to lack of interest, inability to contact, technology limitations, pregnancy, or enrollment errors. Among enrolled patients, 9 completed at least one follow-up encounter. Pharmacist



interventions included medication reviews, patient education, blood pressure trend monitoring, adherence assessments, and chronic disease management support.

Several implementation challenges were identified, including limited patient engagement, lack of smartphone access, digital literacy barriers, scheduling difficulties, and socioeconomic constraints. Despite these barriers, the program successfully obtained reimbursement for blood pressure monitors and generated revenue through medication therapy management services. Financial analysis demonstrated that reimbursement opportunities were primarily available through Medicaid, highlighting ongoing challenges related to pharmacist provider status and billing limitations.

Overall, this project demonstrates the feasibility of pharmacist-led RBPM services in community pharmacy while emphasizing the need for sustainable reimbursement models, expanded pharmacist billing recognition, and scalable workflows to support long-term service growth and improve hypertension management in underserved populations.