Introduction
The University of Maryland, Baltimore Aging in Place Program (UMB_APP) was developed from a long history of interdisciplinary work in geriatrics that focused on single intermittent programs in which students and faculty from multiple disciplines came together to use case based approaches for teaching. Our goal in this enduring initiative is to build off that history, knowledge and strength and apply it to clinical settings that provide team based care to meet the needs of a local high-rise senior housing community. Specifically, in the UMB_APP we incorporate clinical hours for students in audiology, dentistry, dental hygiene, medicine, nursing, pharmacy, physical therapy and social work as part of their required clinical coursework or via an independent study or extra community based credit and made these hours a community based interdisciplinary experience. The program included graduate and undergraduate students.

The UMB_APP involved implementation of three steps: (1) Interdisciplinary Education of Students from the Schools of Pharmacy, Nursing and Social Work; (2) Planning and implementation of clinical work; and (3) Ongoing evaluation of clinical work: Identification and management of challenges. The clinical component of the program was done at a senior housing facility that included 110 apartments for elderly and disabled individuals in an urban setting. Many of the residents were aging in place and as such both clinical and social needs were identified that would facilitate their ability to remain in the setting. Some of the needs identified included; completing basic activities of daily living, instrumental
activities of daily living and adhering to appropriate management for a variety of clinical conditions (e.g., diabetes, hypertension).

**Step 1:** Interdisciplinary Education of Students was done prior to bringing students to the clinical setting. Each semester, two to three students from each of the participating schools were included in the UMB_APP program.

- **Social Work:** first year student and this was her field placement for the entire academic year (Fall 2017 through Spring 2018).

- **Pharmacy:** Two pharmacy students were included in the Fall semester and three in the Spring. All five were in their third year of the PharmD programs and their participation was done as an independent study.

- **Nursing:** Two nursing students were included each semester and these students were registered nurses working on their baccalaureate degrees in nursing. They participated in the UMB_APP to meet the clinical component requirement for their community health course.

- **Medicine:** Two medical students were included as part of their year-long service learning. This was an additional student who assisted from the previous academic year due to continued interest in this clinical setting and program.

- **Audiology:** Two audiology students were included in the second semester after Dr. Mansour met with them and their faculty member at College Park to orient them about the program. They participated remotely and paid a planned visit to Mount Clare for an educational session to the residents as well as attended the clinical meeting that was held afterwards at the school of nursing.

- **Dental:** The Dental Hygiene student was included in the first semester as part of her BS in Dental Hygiene. During the Spring 2018, a dental student joined in during her last semester.

The faculty included Drs. Barbara Resnick, PhD, CRNP; Kelly Doran, PhD, RN; Nicole Brandt, PharmD, MBA; Sarah Holmes, MSW; Daniel Mansour, PharmD; Everett Smith, LGSW, MSW, and Reba Cornman, MSW. The faculty engaged the Senior Housing Manager at Mt. Clare, Leta Nesmith, in planning the focus of the work and educational activities for the students.

At the beginning of each semester, we held a two-hour interprofessional educational session that provided information about the focus of interdisciplinary education and clinical work in this program, information about the facility and surrounding area, and the goals and activities they would be engaged in during the semester. Lastly, we discussed requirements that were specific to the program. These included monthly meetings to review work done at the facility, raise challenges among team members and in the work with residents, and discuss resolutions and next steps.
Step 2: All students focused on biweekly interprofessional presentations as well as individual assessments of residents either in their homes or in the lobby. The resident manager identified residents who needed help with either management of:
- Activities of Daily Living (ADLs);
- Instrumental Activities of Daily Living (IADLs);
- Medical or psychosocial problems

OR the residents would approach the team members during their presence at the apartment building.

The educational programs provided by the students during the first semester included:
- Health and Balance Awareness day (coinciding with Falls Prevention week)
- Immunization Awareness
- Exercise Day
- Hearing Health
- Medicare Part D during open enrollment period;
- Foot Care / Exercise Day
- Oral Health

All of the talks attracted many repeat residents who come down not only to engage in the talk but to have their blood pressure checked as well. Many of the talks were new especially on oral health in the fall and hearing health in the spring. The students assisted residents on ways to access social, medical and pharmacy networks in the community such as the support of the health department for free vouchers for the flu shot and local community pharmacy for immunization and how a patient-specific insurance correlates to receiving the flu shot. Scenarios like educating an older adult on what to look for on a newly prescribed medication, on how to properly use Spiriva®, or Lantus® subcutaneous injection, were not uncommon.

The interdisciplinary team also worked with faculty members and others who had ongoing programs in the housing facility. For example, the students participated in the monthly exercise classes every 2nd Thursday of the month and there were opportunities to foster leadership among the residents themselves to take charge of inviting their neighbors as well as participate in advertising for upcoming events via flyers under the doors, phone calls and emails.

Fun times for the residents were an overall goal of the students in delivering the talks. Games like Jeopardy and using a huge toothbrush and a gigantic display mouth were used as an audiovisual means on how to floss, brush your teeth, use a mouthwash and why, added to the fun and laughter of the events.

Step 3: Ongoing Evaluation of Clinical Work

The students and faculty met formally each month in addition to informal faculty participation in the clinical site. The informal interactions might be for faculty to participate in educational sessions or just meet with the residents and students in the setting. The formal faculty/student meetings were done out of the facility and students or faculty who
could not be on campus could join in via the phone or video conference. As noted, we received updates from students, raised concerns and questions and provided guidance for next steps during the upcoming month. In addition, the students were asked to keep a journal of their experiences that was handed in at the end of the semester.

**Step 4: Evaluation**

**Primary Objective:** Increase interprofessional collaboration and outreach to meet the needs of a local high-rise senior housing community

**Secondary Objective:** Continue to describe opportunities and challenges to implementing a sustainable IPE program in the community.

![Assessment of Interprofessional Team Collaboration Scale](chart1.png)

**Tertiary Objective:** to gauge students’ progress on understating and applying IPEC 2016 competencies pre- and post- experience.

**Site:**
Mount Clare Overlook Apartments is 110 apartment high rise building in West Baltimore considered medically underserved.
Timeline:
Sept 2017 - Fall 2018

Disciplines Involved:
2015 - 2016: pharmacy, social work, nursing
2016 - 2017: pharmacy, social work, nursing, medicine, physical therapy
2017 - 2018: pharmacy, social work, nursing, medicine, physical therapy, dental hygiene, dentistry, audiology

Activities:
• 2015: Two interprofessional student teams identified and evaluated residents of Mount Clare Overlook Apartments, developed care plans and an outreach activity with support from the precepting faculty members, and evaluated the ongoing progress of residents.
• 2016: Shifted to a population health approach via raising awareness while maintaining the one-on-one care to residents.
• 2017: Sustained both the one-on-one approach as well as the population health outreach activities and exploring relationships with business and institutions in the area such as pharmacies (for provision of the flu vaccine and serving individual residents), grocery stores (for making better food choices available to the residents). By the end of 2017/beginning of 2018, a 3 credit hour course offering application was submitted to the school of pharmacy and graduate school.

Feedback:
• Students kept a clinical and reflection journal on a regular basis.
• Results were determined through a survey of student journals focusing on the frequency of statements that related to rewards and challenges of working on an IPE team
• Monthly interprofessional meetings.
• Feedback from the site manager.

Interprofessional Participants:
1. Audiology Student Participants: Kelly Miller, Rachel Robinson
2. Dental Hygiene Student Participant: Shaniece Brown
3. Dental Student Participant: Rebecca Salzman
4. Medical Student Participants: Max An, Ryan Cherng, Aloise Diedrich, Kaley Gonzalez, Jessica Lee, Claire Stanley
6. Pharmacy Student Participants: Amanda Batdorf, Josh Chou, Jasmine Ebron, Ugochukwu Eze, Abigail Klutts, Wilhelmina Lord-Adem, Chelsea McFadden, Folarin Ojowa, Ihuoma Onyewuchi, Aimee Porter, Sierra Simpkins, Monica Tong, Mary (Katie) Brunk, Yu (Eunice) Choi
7. Social Work Student Participants: Megan Brown, Linnea Shore, Colleen Sippel, Laura Weimer, Sarah Zussman