

Improving Preconception Care Through Medication Therapy Management

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Background

- The U.S. struggles with high infant mortality rates (6.1 deaths per 1000 live births) and ranks 26th among OECD countries on this measure.¹
- Infant mortality rates are significantly higher in Ohio than the national average.²
- Preconception care involves the recognition and management of biomedical or behavioral issues among women of childbearing potential that must occur before or very early in pregnancy to reduce risks to the health of a woman or her baby.³
- Through preconception care, infant mortality rates and other adverse pregnancy outcomes can be reduced or prevented.⁴
- Currently, most women in Ohio are not routinely receiving preconception care services.⁵
- Community pharmacists are well-positioned to provide preconception care through medication therapy management (MTM). Some services may be provided through targeted medication reviews (TMR); other interventions may require a comprehensive medication review (CMR).⁶
- Preventive care support by pharmacists for preconception care has been discussed in the literature,⁶ but clinical service implementation using MTM with an established billing mechanism has not been previously implemented.

Objective

- To demonstrate the ability of a statewide network of community pharmacists to provide preconception care services through the MTM framework.

Methods

- A free, written 1-hour ACPE-approved continuing education (CE) program was developed for pharmacists and technicians. The CE program was distributed electronically and posted online.
- TMRs were developed that targeted three aspects of preconception care:
 - 1) providing patient education to women receiving potentially teratogenic medications that may pose a risk to the fetus (i.e., miscarriage, birth defects);
 - 2) recommending daily folic acid intake;
 - 3) recommending and providing appropriate immunizations.
- A sample of women aged 15-45 years enrolled in CareSource, a non-profit managed Medicaid program, were eligible for the intervention.
- Pharmacists participating in the OutcomesMTM network in Ohio viewed eligible patients and documented the TMRs through the Connect platform.
- The project was IRB-approved.

Results

The interventions started November 21, 2015. Data below are as of April 30, 2016.

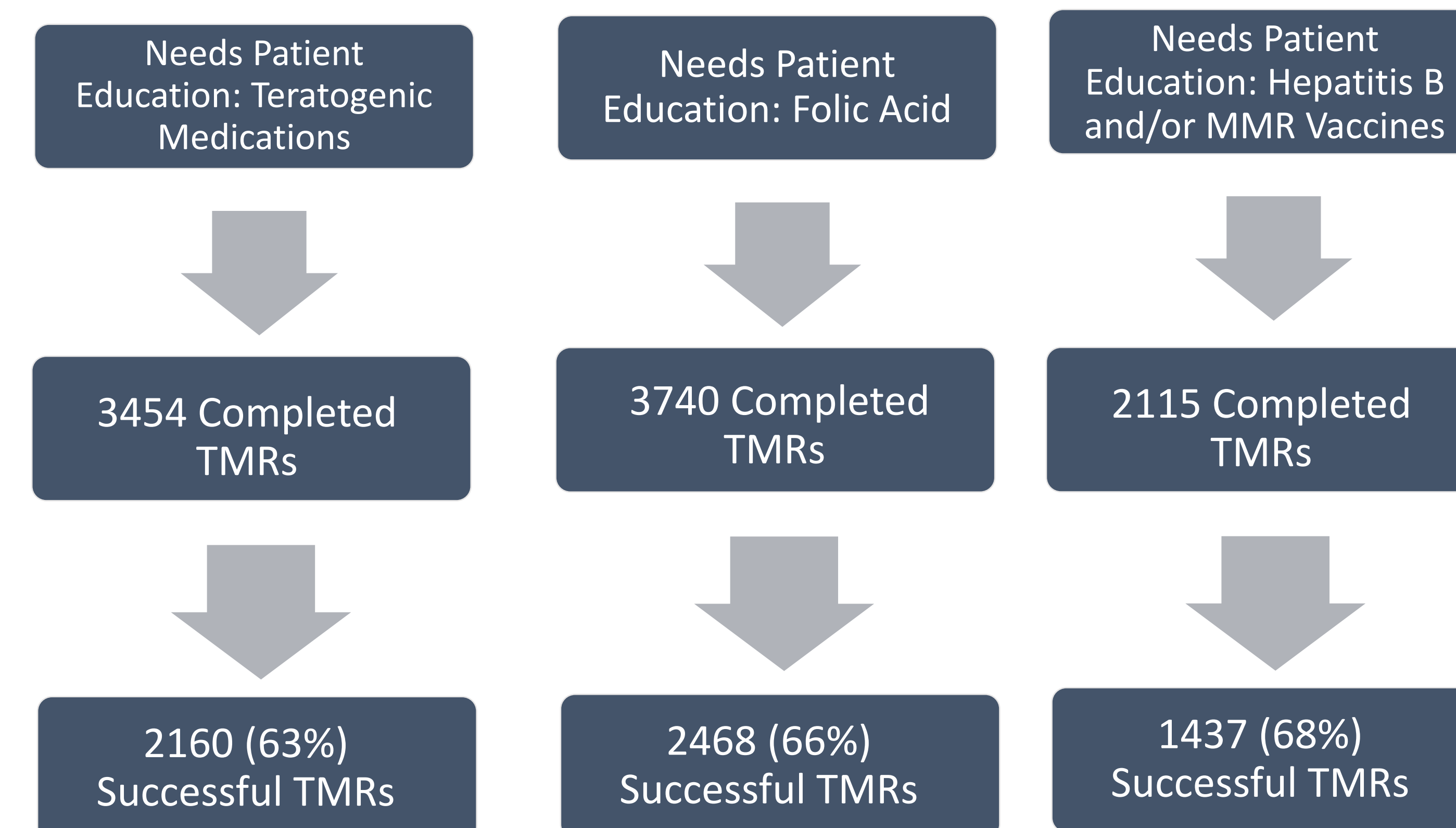
Table 1. Number of Pharmacies With Completed TMR

Pharmacy Type	Number
Regional Chain	120
Medium Chain	137
Large Chain	561
Independent	34
PSAO	96
Overall	948

Table 2. Number of Pharmacists Who Completed a TMR

Pharmacy Type	Number
Regional Chain	199
Medium Chain	127
Large Chain	933
Independent	38
PSAO	113
Overall	1410

Figure 1. Completion and Success Rate of TMRs by Type



Below are examples of qualitative feedback provided by pharmacists when completing TMRs:

- The pharmacist was alerted that a patient of childbearing age was in need of education regarding immunizations. He discussed the necessity of these vaccines with the patient and confirmed the patient had never received the hepatitis B vaccine. Subsequently, he administered the first dose that day and discussed times for the remaining doses.
- The pharmacist was alerted that a patient needed education regarding the prenatal benefits of folic acid. He educated the patient on the importance of folic acid supplementation for women of childbearing age to prevent birth defects. The patient was receptive to this discussion and in follow-up requested the pharmacist to contact her physician to obtain a prescription for folic acid.
- The pharmacist was alerted that a patient of childbearing age may benefit from education regarding folic acid therapy. He educated the patient on the importance of folic acid use prior to and during pregnancy to prevent certain birth defects. He recommended a folic acid supplement be taken by the patient and in follow-up, the patient reports being compliant with the supplement.

Adaptability

- Rates of TMR success (Figure 1) are quite similar to other TMRs in use with the same population; therefore, with minimal training and support, community pharmacists were readily able to effectively engage patients for a new preventive care service in an area that they were not previously providing routine and consistent support.
- Provision of preconception care via MTM can be implemented in any community pharmacy.

Implications and Next Steps

- Over a thousand pharmacists in hundreds of different pharmacies across Ohio were rapidly engaged in the provision of a preventive service not previously documented at this scale (Tables 1 and 2).
- Through increased provision of preconception care, pregnancy outcomes for women in Ohio should be improved.
- To our knowledge, this is the first project to determine the feasibility of pharmacists providing preconception care using MTM and billing a third party for services.
- Results of this project may provide justification for additional payers to reimburse for similar MTM services.
- Through demonstrating the impact on preconception care, the role of the community pharmacist may continue to expand to include provision of additional preventive care services.
- Next steps are to examine the outcomes of the pharmacists' interventions, namely:
 - The number of women who switched from a potentially teratogenic medication to a medication that poses less fetal risk;
 - The number of women who received a prescription for folic acid;
 - The number of women who received an immunization for hepatitis B and/or MMR;
 - The number of women who initiated contraception or switched to a more effective form of contraception.

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