

Partnership Between the Wisconsin Immunization Registry and Wisconsin Community Pharmacies

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Goals

- Describe our collaboration between University of Wisconsin School of Pharmacy and the Wisconsin Immunization Registry (WIR)
- Acknowledge WIR's unique potential to help pharmacy realize its full potential for immunization roles and facilitate inter-professional communication between sites

Our Start

- Sonderegger Research Center identified state population health needs related to potential pharmacist services in its state of the state Lemberger Report
- Bacterial pneumonia was 2nd most prevalent diagnosis of Ambulatory Care Sensitive Conditions for hospitalized adults 65+ in Wisconsin
 - (Healthcare Cost and Utilization Project (HCUP) 2009-12)
- I heard about the amazing WIR at a medical conference

Wisconsin Immunization Registry (WIR)

- Statewide, population-based Immunization Information System (IIS), established in 1999 by the Wi Division of Public Health (WDPH)
- Populated with demographic information from all birth records in Wisconsin beginning with the 1995 birth cohort
- WIR participation is not required, but WIR receives new client and immunization data from many public and private healthcare providers, pharmacies, HMOs, Medicaid and WIC
- As of March 2015 WIR receives data from 2,400 provider organizations and 15,300 active users

Immunization status

- Wisconsin remains well below the Healthy People 2020 goals for adult immunization rates
- Pharmacists have an increasing role in vaccine administration (convenient, cheap, accessible)
 - However, 40% of retail pharmacies are not using the Wisconsin Immunization Registry (WIR) on a regular basis.
- Zoster, pneumococcal, and Tdap vaccination rates remain low at Wisconsin community pharmacies
- Majority of PharmD graduates are certified to immunize which speaks to the potential

Reached out to WIR to Assess:

- If the WIR data could help pharmacists identify their patients' needs for immunizations
- If WIR's Immunization Information System (IIS) data could evaluate the impact of community pharmacists in immunizing adults
- If WIR's patient data could be shared between providers at different sites with different electronic systems

WIR's Own Study:

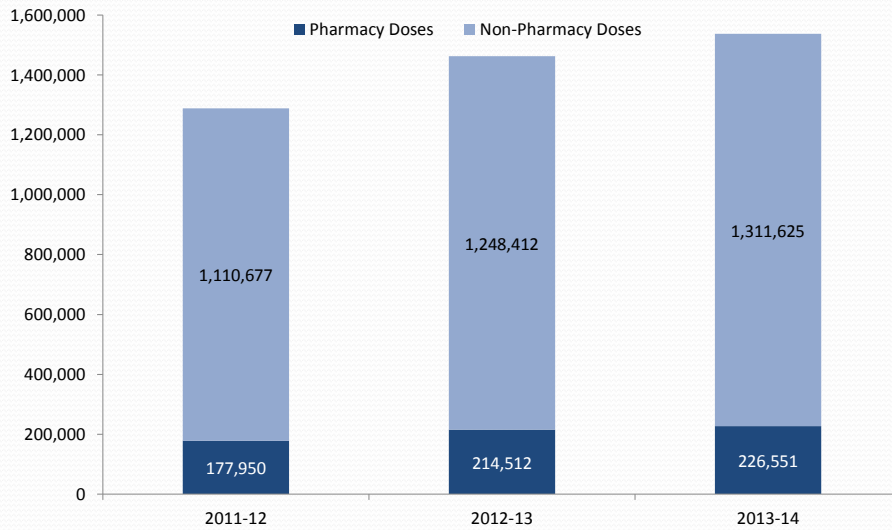
- Demonstrated IIS capability to assess retail pharmacy vaccination data
- Demonstrated the value of collaboration between IIS and community pharmacies
- Demonstrated the value of community pharmacy participation in an IIS

Number of New and Active Pharmacies Reporting to the IIS

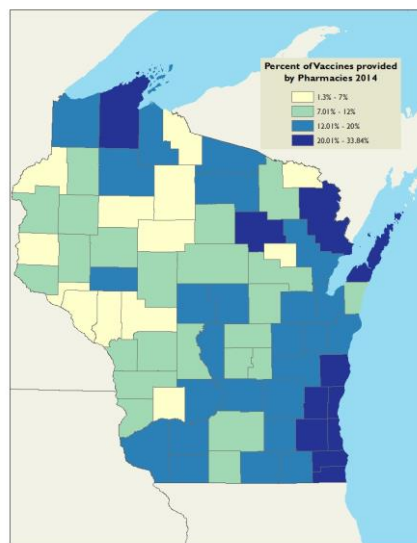
Year	WIR New Submitters	WIR Active Submitters
2011	13	98
2012	240	339
2013	28	366
2014	10	375

In 2014, WIR had 626 pharmacies enrolled.

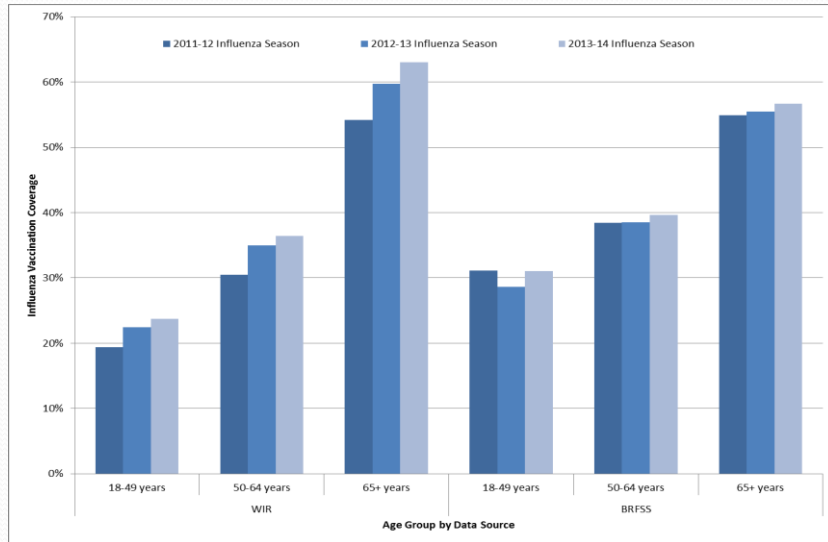
Influenza Vaccination Doses Reported to the IIS and the Percent Reported by Pharmacies by Season



Proportion of Influenza Vaccinations Reported to WIR during the 2013-14 Influenza Season by Pharmacies



Influenza Vaccination Coverage by Age Group and Season, WIR compared to CDC



*BRFSS= Behavioral Risk Factor Surveillance Survey

% Coverage Rate for 65+ by Region Reported to WIR by Pharmacies

– WIR aids evaluation of interventions

	SO	SE	North	NE	West	State
Pneumococcal	4.7%	8%	5%	4.4%	4.1%	5.8%
Flu	19.2%	34%	18.2%	21.3%	13.3%	23.2%

Limitations

- Adult data are likely to be under-reported
- Pharmacies may be more likely than other provider types to report their immunization data because many of them have adopted HL-7
- WIR has inflated population denominators due to clients not being marked as 'Moved out of State' and instead maintaining an 'active' status in WIR associated with a WI address

WIR Can Support and Evaluate Pharmacy Interventions as New Kid on the Block

- Students collaborated with WIR on a feasibility study
- Designed a system for a community pharmacy to identify the immunization needs of each of their PTs > 60 coming to pick up a prescription in the next week.
- Immunization history handout printed directly from WIR (hx plus guidance on upcoming immunizations) and given to patient - zoster, pneumococcal, Tdap

Offers A Case Study

- A chain pharmacy mostly conducted vaccine screenings in influenza season
- On average, gave 1 shingles vaccine every two months
- Only screened for pneumococcal vaccine eligibility when administering influenza vaccine and not systematically

Intervention Design

- 1) Identified eligible patients from pharmacy
 - Patients > 60 coming to pick up prescription within 1 week
- Patient then cross-referenced in WIR to determine immunization eligibility
- Immunization history handout was printed directly from WIR
 - Includes immunization history as well as guidance on upcoming immunizations

Intervention Design

- 2) Outreach and Education
 - While counseling the patient, pharmacist gave the patient the handout from WIR and explained it.
 - Then asked patient if he/she would like to receive the immunization/s at the pharmacy

Client Information					
Client Name (First - MI - Last)	DOB	Gender	Tracking Schedule		
			ACIP		
History					
Vaccine Group	Date Administered	Series	Trade Name (Vaccine)	Dose	
Influenza	01/14/2015	Booster	FluLaval®	Full	
Pertussis/Tdap	06/25/2014	1 of 1	Boostrix®	Full	
Pneumo-Poly	01/14/2014	1 of 3	Pneumovax 23®	Full	
Td	06/25/2014	1 of 1	Boostrix®	Full	
Current Age: 58 years, 9 months					
Vaccines Recommended by Selected Tracking Schedule					
Vaccine Group	Vaccine	Earliest Date	Recommended Date	Overdue Date	Latest Date
Influenza		08/01/2015	08/01/2015	04/14/2016	
MMR		08/04/1958	08/04/1958	08/04/1961	
Pertussis/Tdap		Complete			
Pneumo-Poly	Pneumo-Conjugate 13	08/04/2022	08/04/2022	08/04/2024	
Td		06/25/2019	06/25/2024	08/25/2024	
Varicella		08/04/1970	08/04/1970	08/04/1971	

Intervention Design

- 3) Administration
 - Pharmacist administered the vaccine, gave patient VIS, and updated immunization in WIR

- 4) Reimbursement
 - RPh or tech submitted claim as they normally would

Intervention Implementation

- Adaptable

- Easily implemented into workflow

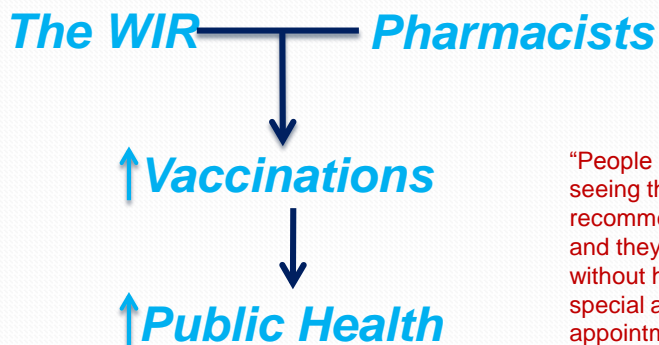
- Built upon existing resources and systems for flu shots

Case Study Results

Vaccination	Apr 20-Dec 31 (2014)	Apr 20-Dec 31 (2015)	Percent Increase
Pneumococcal	6	55	917%
TDaP	4	17	425%
Zoster	8	17	213%
Influenza	108	181	168%

“It really tells that all of us in health care should be advocating for the regular utilization of the WIR. I would like it to be used nationally” – RPh at intervention site

Takeaways



“People really do respond to seeing the vaccination recommendations on paper and they like to get vaccinated without having to make a special appointment, pay an appointment co-pay, etc.” – RPh at intervention site

Walgreens and others are:

- Expanding immunization services
- Reporting immunizations to WIR
- Using WIR PT information
 - To ID immunization needs of their patients
 - To educate patients about their immunization needs
 - To offer immunizations as needed and desired by patients

Inter-site Communication*****

- IIS system in WIR centralizes immunization information so all providers can access their patients' records
 - Unique in the health care system
- Unique for pharmacies
 - Not on prescribers' electronic health record systems
 - This allows RPh to ID patient immunization needs
 - RPh can easily report immunizations to WIR
 - Prescribers can access RPh information easily via WIR

Next Steps

- Work with chain and independent pharmacies
- Plan a research stream to evaluate pharmacy intervention impact on immunization rates, population coverage and ultimately health outcomes
 - Vulnerable subgroups
 - Geographical groups
 - HPSA areas
- Recognize pharmacy is easily galvanized as needed

Questions!

