

# Not for industry only: medical students and office-based academic detailing the PIVOT (Pregnant women Influenza Vaccine Optimization Team) initiative

Daina A Blitz<sup>1</sup>  
Jonathan R Mallen<sup>1</sup>  
Thomas G Kwiatkowski<sup>1,4</sup>  
Jill M Rabin<sup>1,2</sup>  
Yosef D Dlugacz<sup>1,3</sup>  
Robert A Silverman<sup>1,3,4</sup>

<sup>1</sup>Hofstra North Shore-LIJ School of Medicine, Hempstead, NY, USA;

<sup>2</sup>Department of Obstetrics and Gynecology, North Shore-LIJ Health System, New Hyde Park, NY, USA;

<sup>3</sup>Krasnoff Quality Management Institute, North Shore-LIJ Health System, New Hyde Park, NY, USA;

<sup>4</sup>Department of Emergency Medicine, North Shore-LIJ Health System, New Hyde Park, NY, USA

**Abstract:** Academic detailing is a method of educational outreach that utilizes individualized encounters with physicians to broach specific medical issues in an evidence-based and quality-driven manner. Medical students utilized the matter of influenza vaccination during pregnancy as a lens through which to explore the methods of academic detailing in a community setting. Structured and customized dialogues between North Shore-LIJ affiliated obstetricians and Hofstra North Shore-LIJ medical students were conducted regarding the disparity between the proportion of providers that recommend the vaccine and the percentage of pregnant women being vaccinated annually. Ultimately the project aimed to increase vaccine-carrying rates throughout office based practices in the community, while establishing a viable method for up-to-date information exchange between practicing physicians and academic medicine. While the extent of affected change is currently being quantified, the project proved successful insofar as academic detailing allowed the students to gain access to physicians, and engage in compelling and educational conversations. Both the physicians and students felt these interactions were valuable and well worth continuing. The goal for the future is to expand these practices to other pressing public health issues while continuing to refine the technique.

**Keywords:** academic detailing, evidence-based medicine, medical students, community physicians, influenza vaccination, pregnancy

## Introduction

Academic detailing is a method of educational outreach that utilizes individualized encounters with physicians to broach specific medical issues in an evidence-based and quality-driven manner.<sup>1,2</sup> Specifically, it entails personalized and tailored interactions between practicing physicians and health professionals trained to communicate a comprehensive view of the most up-to-date information on a particular medical topic. By design, academic detailing is structured for more personalized education, in direct contrast to large formal didactic sessions such as centralized continuing medical education forums, in an effort to promote better penetration and retention of the important information being delivered. When done effectively, academic detailing is engaging, and explores constructive and practical solutions to medical problems. It has been utilized effectively around the globe particularly in Australia, the UK, the Netherlands, and Canada.<sup>3-7</sup> There are multiple variations of the approach which have been used across fields as varied as orthopedics, oncology, psychiatry, and neurology, all linked

Correspondence: Daina A Blitz  
Hofstra North Shore-LIJ School of Medicine, 500 Hofstra University,  
Hempstead, NY 11549, USA  
Tel +1 516 849 9686  
Email dblitz1@pride.hofstra.edu

by the employment of peer based personalized discussions to understand and influence clinical behavior.<sup>8–10</sup> This tactic has also proven successful and has been used extensively by pharmaceutical representatives to influence physician decision-making.<sup>11–14</sup> Unlike pharmaceutical detailing, which typically employs this technique as a means to promote a product, academic detailing utilizes these methods to begin a dialogue based on established management guidelines or consensus recommendations. The academic detailing typically is focused on improving patient care and health outcomes in a way that aligns patient, provider practice, and societal interests.

Academic detailing is usually conducted by clinical peers, for example provider to provider. This pilot project differed in that it utilized academic detailing by medical students to influence vaccination rates of pregnant women against influenza. Specifically, our objective was to increase carrying rates of the vaccine in obstetricians' offices. We selected this topic since pregnant women and their fetuses are at higher risk from the complications of influenza, and yet women are often not vaccinated during pregnancy. Studies indicate that non-administration by obstetricians is one of the most significant barriers to maximizing vaccination rates.<sup>15–17</sup> We conducted structured interviews with each obstetrician that included a student presentation on vaccination during pregnancy, a questionnaire, and a survey regarding the interaction.

## Project implementation and getting into offices

The North Shore-Long Island Jewish (NSLIJ) Health System is comprised of 19 hospitals in the New York region; in this project we focused on community obstetrics practices representing more than 100 obstetricians from Queens county, NY and the two counties in Long Island, NY. Practices were identified through the NSLIJ database, which contains the contact information of all obstetricians with privileges at any of the Health System's hospitals. Each of the offices that we sought to visit employed at least one physician associated with NSLIJ – we were looking at a community-based approach that would be relevant to our studies. We drafted a letter, describing the project as a collaborative effort between NSLIJ and the Hofstra-NSLIJ School of Medicine, designed to explore practicing physicians' approaches to influenza vaccination in pregnant patients. The letter was endorsed by the Chairman of Obstetrics and Gynecology for NSLIJ as well as the Dean of the Medical School, and sent via standard mail and twice by email to the obstetricians' offices.

This project was conducted during a summer research elective between our first and second year of medical school. We recruited an undergraduate student to handle our scheduling and to arrange appointments for us. Given that the offices had each received multiple copies of the letter informing them that we would be visiting, we surmised that the majority of phone calls would be brief, straightforward, and uncomplicated. We allotted 2 weeks to make all of the appointments for the project. As soon as we began, we encountered obstacles however, as office managers acted as gatekeepers, impeding the easy entry we had initially expected. Roughly half of the office managers were amenable to scheduling time for us to meet with the physicians without significant delay or contention. The others, we found through trial and error, required phone calls directly from more authoritative figures within the NSLIJ Department of Obstetrics and Gynecology. Only one office denied a direct request made by the department.

Even though the average encounter lasted between 15 and 20 minutes, we quickly discovered that we needed at least an hour per visit, not including travel time, to account for time spent waiting to meet with the obstetricians. The vast majority of doctors we met with had schedules that were fully booked. Many physicians had to squeeze us into their agendas, in a similar fashion to the way they had grown accustomed to squeezing in lunch during a busy day with patients. This translated to waiting times of 20–25 minutes on average, per office visit, and on occasion, up to an hour or more.

Status as medical students seemed to ensure that physicians were almost universally enthusiastic about speaking with us, regardless of how difficult it had been to make the appointment. This became especially apparent during one encounter with a doctor who was particularly curt once we arrived for the meeting and instructed us that she was far too busy to possibly spare even 10 minutes of her time. She further added that she was unsure as to why we had come to speak with her. Once she discovered that we were medical students, her tone and disposition toward us changed completely. The obstetrician, who had started to walk away and was now nearly half-way down the hall, turned around and beamed at us wondering why we had not mentioned that sooner. She was incredibly helpful from that moment on and made a point of saying on multiple occasions not to hesitate to call if there was any way she could help. Her change in demeanor was astounding and suggested a loyalty within the ranks of physicians that we could not have realized would have extended so seamlessly to medical students. Similarly, many other physicians voluntarily referred us to colleagues

who might also be willing to talk with us, and some even offered to personally mentor us. Even those who were reluctant to change their own practices were enthusiastic about explaining the “real world” aspects of medicine that continue to shape their medical decisions every day.

## The encounter

The general format of the interaction with the obstetricians was structured by a set of questions we had created to discuss in each office, depending on whether or not the office carried the influenza vaccine. We used a decision tree to ensure a higher degree of standardization for the visits. If the office did carry the vaccine, the conversation centered upon the reasons that accounted for the office’s ability to carry it. If the office did not carry the vaccine, the dialogue focused on uncovering the critical hindrance(s) that accounted for why not, and made an attempt to reconcile beliefs and sentiments about the vaccine and its administration that may have been precluding the office from carrying it.

While the overall design of the discussion was structured to elicit qualitatively comparable responses and information from each obstetrician, the particular nuances of the encounters with the physicians continued to reshape and restructure interactions as the project progressed. At the start of every encounter, we noted the manner with which the physicians approached the meeting. Most were enthusiastic about conversing with medical students; some, however, came across as impatient, skeptical, and/or generally uninterested. This initial attitude, however, did not correspond with the amount of time we spent in each office. We found that even the physicians who were initially dubious, remote or irritated, seemed to have a lot to contribute to the conversation, regardless of whether or not they carried the vaccine. Once we elaborated upon our goals and made it clear that we were there both to learn from them and gather information in order to improve patient care and patient outcomes, the environment became much more relaxed and agreeable, and the conversations more constructive.

Over the course of the project, we collected strategies based on our discussions with the various obstetricians in the community, and employed these strategies to elicit the most valuable dialogue and information from each practitioner. For example, we asked the obstetricians who carry the vaccine what they considered to be the most persuasive argument that we could implement in order to influence offices that do not currently carry the vaccine to begin doing so. Additionally, we explored what reasoning prompted them to begin carrying

the vaccine in their own practices. To the obstetricians who did not carry the vaccine, we inquired as to whether or not the guarantee of no surplus (ie, any extra vaccine would be bought back and the office would not incur the cost of unused vaccine) would be incentive enough to carry it; we followed this up with the question of whether or not free vaccine would be incentive enough to carry it. When we found that a physician would not shift with respect to his or her views on the vaccine, we used the encounter to collect information and opinions about any uncertainties regarding safety, cost, reimbursement, etc. We found that adaptation and flexibility throughout the course of the project facilitated the best acquisition of information and the most favorable exchange possible.

We quickly began to appreciate the importance of having print copies of all of our primary source materials with us at every encounter. Many providers trusted the facts and statistics we presented, and even most of those who asked to look over our prepared documents and journal articles only gave them a cursory glance, preferring instead for us to summarize the salient points. Some, however, were incredulous of any statements made in the absence of explicit and immediate citations. One physician went so far as to impugn the validity of the entire program and the importance of influenza vaccination for pregnant women strictly because we could not produce one particular document that the physician thought we should have had on hand. Accordingly, we have found that having a range of articles appropriately organized and readily available is essential to successful academic detailing.

There were times when physicians became defensive when we inquired about their vaccine practices, and spoke openly about their frustrations about our limited understanding of practical medicine and the economics of private practice. We found that by showing respect for the physicians’ seniority and by approaching such discussions with genuine curiosity, even the most reluctant physicians came around to regard us less as naïve medical students and more as future colleagues who had come to them to learn.

## Impact: physicians’ perspectives

At the end of each interaction, we gave the obstetricians an informal survey, which asked about their impressions of us, of the dialogue – regarding both the substance of the conversation and the quality of the meeting – and whether or not they would like to see more of this kind of interactive discussion between medical students and physicians. The results were that physicians were overwhelmingly in

favor of the continuation of the project; almost all obstetricians gave this element of the survey the highest possible marks. The vast majority of physicians felt that we brought evidence-based information to the encounter, and that they found the interaction to be a unique and pragmatic way of obtaining and exchanging information. It was clear that even physicians who were initially ambivalent or impatient almost unanimously warmed to us over the course of the encounter, and began to engage in an academic conversation about the issues surrounding influenza vaccination in pregnancy. As we introduced data from our own research, we were also engrossed in discussions about other practical issues in medicine including reimbursement, operations, malpractice, and ethical conduct. Physicians began to offer up these and other topics voluntarily as the conversation progressed, with an eagerness and excitement that we had not expected at the outset. At the conclusion of each visit, we frequently left the offices with contact information (email addresses and telephone numbers), as well as enthusiastic invitations to return to the office to observe the physician in practice or simply for further conversation.

## Impact: our perspective

The pilot initiative provided significant findings, which indicated that we as medical students were, in fact, able to gain access to physicians' offices and engage in evidence-based dialogues about relevant and important issues. Although we initially encountered a few roadblocks – including difficulties with scheduling appointments, encounters with physicians who were at first reluctant even to speak with us – we were able to find solutions and strategies that enabled us to proceed more productively. Our next objective will be to quantify the impact that our interactions had on influenza vaccine carrying rates among the practices. We consider the pilot program successful in itself, in that we achieved what we set out to accomplish: we were able to gain access to the physician's office, and to initiate an academic dialogue in order to better ourselves, as well as the medical community, with regards to patient care. Overall, after implementing the pilot project, we came to see it as a blueprint for the future, establishing that the method may be applied to an array of different issues in medicine.

As a corollary to spending significant stretches of time with so many community physicians, we left each encounter with new insights regarding medical practice today that went beyond the scope of the project. For example, we were able to see firsthand some of the practical issues faced by physicians operating in a wide range of medical practices.

Much of the wisdom imparted to us, which carried great weight coming from currently practicing physicians in an ever-changing environment is difficult to obtain through a formal medical school classroom setting. Through these encounters we were often given advice as to how medicine operates outside of an academic setting – something that many of these physicians lamented the absence of within the typical medical school curriculum. These encounters help to provide new contexts for the clinical skills we are studying as medical students, and bridge the gap between academic and “real world” medicine.

## Practice points

Academic detailing is an effective method for information exchange between medical students and physicians, and has the potential to influence clinical practice. Medical students are able to gain access to providers' offices and initiate dialogue. Implementation of academic detailing on a larger scale with a broader scope of medical issues is needed to quantify the utility of this promising methodology.

## Disclosure

The authors have no conflicts of interest to disclose.

## References

1. Boom JA, Nelson CS, Kohrt AE, Kozinetz CA. Utilizing peer academic detailing to improve childhood immunization coverage levels. *Health Promot Pract.* 2010;11(3):377–386.
2. National Resource Center for Academic Detailing [homepage on the Internet]. c2014. Available from: <http://www.narcad.org/>. Accessed Jun 2012.
3. Allen M, Ferrier S, O'connor N, Fleming I. Family physicians' perceptions of academic detailing: a quantitative and qualitative study. *BMC Med Educ.* 2007;7:36.
4. Avorn J, Soumerai SB. Improving drug-therapy decisions through educational outreach. A randomized controlled trial of academically based “detailing”. *N Engl J Med.* 1983;308(24):1457–1463.
5. grants.nih.gov [homepage on the Internet]. National Institutes of Health, Office of Extramural Research. Request for applications, Recovery Act 2009 Limited Competition: Innovative Adaptation and Dissemination of AHRQ Comparative Effectiveness Research Products (iADAPT) (R18). Bethesda (MD): NIH; 2009 Sep [cited September 17, 2010]. Available from: <http://grants.nih.gov/grants/guide/rfa-files/rfa-hs-10-004.html>. Accessed November 6, 2014.
6. Federal Business Opportunities. Academic detailing [homepage on the Internet]. Washington (DC): FedBizOpps.gov; April 28, 2010 [cited September 17, 2010]. Available from: [https://www.fbo.gov/index?s=opportunity&mode=form&id=4b1df43828ae2341bb56ba5c521ec1f6&tab=core&\\_cview=0](https://www.fbo.gov/index?s=opportunity&mode=form&id=4b1df43828ae2341bb56ba5c521ec1f6&tab=core&_cview=0). Accessed November 6, 2014.
7. Simpson F, Doig GS. The relative effectiveness of practice change interventions in overcoming common barriers to change: a survey of 14 hospitals with experience implementing evidence-based guidelines. *J Eval Clin Pract.* 2007;13(5):709–715.
8. Broadhurst NA, Barton CA, Rowett D, et al. A before and after study of the impact of academic detailing on the use of diagnostic imaging for shoulder complaints in general practice. *BMC Fam Pract.* 2007;8:12.

9. Gorin SS, Ashford AR, Lantigua R, Desai M, Troxel A, Gemson D. Implementing academic detailing for breast cancer screening in underserved communities. *Implement Sci.* 2007;2:43.
10. Van eijk ME, Avorn J, Porsius AJ, De Boer A. Reducing prescribing of highly anticholinergic antidepressants for elderly people: randomised trial of group versus individual academic detailing. *BMJ.* 2001;322(7287):654–657.
11. Wazana A. Physicians and the pharmaceutical industry: is a gift ever just a gift? *JAMA.* 2000;283(3):373–380.
12. Chressanthis GA, Khedkar P, Jain N, Poddar P, Seiders MG. Can access limits on sales representatives to physicians affect clinical prescription decisions? A study of recent events with diabetes and lipid drugs. *J Clin Hypertension (Greenwich).* 2012;14(7):435–446.
13. Greene JA. Pharmaceutical marketing research and the prescribing physician. *Ann Intern Med.* 2007;146(10):742–748.
14. Lexchin J. Interactions between physicians and the pharmaceutical industry: what does the literature say? *CMAJ.* 1993;149(10):1401–1407.
15. Blanchard-Rohner G, Meier S, Ryser J, et al. Acceptability of maternal immunization against influenza: the critical role of obstetricians. *J Matern Fetal Neonatal Med.* 2012;25(9):1800–1809.
16. Panda B, Stiller R, Panda A. Influenza vaccination during pregnancy and factors for lacking compliance with current CDC guidelines. *J Matern Fetal Neonatal Med.* 2010;24(3):402–406.
17. Dlugacz Y, Fleischer A, Carney MT, et al. 2009 H1N1 vaccination by pregnant women during the 2009–2010 H1N1 influenza pandemic. *Am J Obstet Gynecol.* 2012;206(4):339. e1–e8.

### Advances in Medical Education and Practice

## Publish your work in this journal

Advances in Medical Education and Practice is an international, peer-reviewed, open access journal that aims to present and publish research on Medical Education covering medical, dental, nursing and allied health care professional education. The journal covers undergraduate education, postgraduate training and continuing medical education

Submit your manuscript here: <http://www.dovepress.com/advances-in-medical-education-and-practice-journal>

Dovepress

including emerging trends and innovative models linking education, research, and health care services. The manuscript management system is completely online and includes a very quick and fair peer-review system. Visit <http://www.dovepress.com/testimonials.php> to read real quotes from published authors.