

Taking Off With Travel Health Services

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Pharmacist Objectives

At the conclusion of this CE, the audience will be able to:

1. Discuss the most common travel health agents and counseling points for each agent.
2. Analyze the workflow steps required to successfully care for a travel patient from initial contact to vaccine/medication administration.
3. Evaluate the time-based commitment to launch and sustain a travel clinic.
4. Develop a profitable business model for a travel clinic.

Technician Objectives

1. Categorize the workflow steps required to successfully care for a travel patient from initial contact to vaccine administration.
2. Illustrate the role of the travel health technician.
3. Evaluate the time-based commitment recommended for the travel health technician.



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INTRODUCTION

Why Travel Health?

Implementing a travel health program is a unique opportunity for community pharmacies looking to expand patient care beyond traditional dispensing. Community pharmacists are accessible providers and highly trusted by their patients, making them well positioned to attract travelers with a suite of personalized pre- and post-travel services. According to the U.S. Department of State, more Americans continue to travel internationally, with the number of U.S. passports almost tripling between 2000 and 2016 from 48 million to 131 million. The World Health Organization recommends all travelers consult a travel health clinic before their journeys, and with more people traveling there will be greater numbers seeking pre-travel advice. Positioning the community pharmacy as a travel health leader creates a sustainable, specialized clinical service that improves patient access to care while meeting the growing demand for travel health services.

Extension of Current Practice

Travel health is a natural extension of a community pharmacist's current scope of practice: counseling, immunizations, self-care/pharmacotherapy recommendations, and patient follow-up. With pharmacists licensed to immunize in all 50 states, pharmacies are already prepared and comfortable with ordering, storing, and administering vaccinations. Many travel-related vaccines and medications are readily available from a community pharmacy's primary wholesaler or a vaccine supplier. Pharmacists are encouraged to research vendors online or at trade shows such as the NCPA Annual Convention. Travel immunizations and counseling can take place in areas of the pharmacy already designated for patient consultation.

Patient comfort level with pharmacist-delivered vaccinations is increasing as more people are receiving immunizations from pharmacists. Additionally, travel health recommendations and immunizations offered by pharmacists are well received by both patients and providers, with acceptance rates at 80-100 percent for some of the most common travel vaccines, according to studies of pharmacies in Virginia and California. Patients are incredibly satisfied with care received at pharmacist-run travel clinics, with overall satisfaction reported as greater than 90 percent by multiple studies.

Ultimately, most community pharmacies have already laid the foundations to build a successful travel clinic by growing their current vaccination programs and expanding upon patient/provider relationships already in place in the community.

GUIDE TO TRAVEL HEALTH PHARMACY SERVICES

The general mode of operation of pharmacist-run travel clinics in community settings generally consists of pre-travel consultations, care coordination with primary care providers, and dispensing or administration of drug or biological products. Pharmacy-based clinics may have to adapt their approach based on state laws and regulations. Collaborative practice agreements with prescribers can minimize administrative duties and the need for prescription authorization. It is important to check with your state board of pharmacy to determine the laws and regulations in your area.

Travel Clinic Snapshot

Village Drug Shop (VDS) is a locally-owned, independent pharmacy based in Athens, Ga. In addition to VDS's other wellness services, the Travel Health Clinic was started in 2013 by the VDS community pharmacy resident and has been serving the community ever since. VDS's Travel Health Clinic operates as a consultation-based pharmacy service. The travel health pharmacist collaborates with the patient and his or her primary care provider to offer routine and travel immunizations and medications, travel health education, and specialized over-the-counter products. VDS is one of three sites in the area certified to provide yellow fever vaccinations by the Centers for Disease Control and Prevention.

The patient care model employed at VDS is like others implemented in community pharmacies. Travelers engage in an initial phone consultation with the travel health pharmacist and are provided with forms to document consent, travel plans, and medical history. After assessing the patient's travel health needs and developing a travel medication action plan, the pharmacist obtains prescription authorization from the patient's primary care provider. VDS obtains prescriptions for all travel health immunizations and medication recommendations; it does not operate under a collaborative practice agreement. Subsequently, the patient is scheduled for a travel appointment for administration of immunizations, medication counseling, and travel health education. VDS is also able to provide certain vaccines under protocol without a prescription including influenza, herpes zoster, meningococcal, and pneumococcal immunizations as allowed by the Georgia Board of Pharmacy.

The overall goal of a travel health clinic is to employ preventative measures to minimize risk of illness while abroad. High accessibility, comprehensive hours, and drug expertise make community pharmacists excellent candidates to serve as travel health professionals. By developing a strong knowledge base, integrating travel into current workflow, and building a solid business model, community pharmacies can readily develop a travel consultation service.

TRAVEL HEALTH: RESOURCES AND RECOMMENDATIONS

Pharmacist Training

Travel pharmacists should be competent and current on travel health and epidemiological trends. Their knowledge base should include an understanding of disease prevention and transmission, vaccine indications, non-infectious travel-associated health risks, and the major syndromes experienced by travelers upon their return, some of which include fever, diarrhea, and rash. Well-trained travel health pharmacists have been shown to outperform primary care providers in the ability to deliver evidence-based recommendations for antibiotics, antimalarial medications, and immunizations. The main organizations devoted to travel medicine include the International Society of Travel Medicine (ISTM) and the American Society of Tropical Medicine and Hygiene (ASTMH). Pharmacists overseeing travel clinics should strongly consider obtaining a certificate in travel health. Both the ISTM and ASTMH offer certificate programs for health professionals. The American Pharmacists Association and the University of Southern California School of Pharmacy have travel health certificate programs targeted to pharmacists with credit hours designed to prepare a candidate for the ISTM board.

Resources for Pharmacists

A variety of tools are available to assist providers in preparing patients for travel. The most often cited is the CDC Health Information for International Travel, more commonly known as the CDC “Yellow Book.” This resource is available for free online, accessible on mobile devices, and for purchase in print. The CDC Yellow Book is updated biennially and offers detailed information about the pre-travel consultation process, counseling on self-treatable and infectious diseases, and how to care for the special needs traveler. It also contains summative recommendations for yellow fever vaccination and malaria prevention, as well as epidemiological maps. The CDC’s Epidemiology and Prevention of Vaccine-Preventable Diseases, or CDC “Pink Book,” is an indispensable tool for free information on routinely used vaccines and preventable diseases. The CDC website also hosts continuing education opportunities that are useful for pharmacists seeking additional training in travel medicine. The World Health Organization (WHO) is another free, authoritative online resource that offers in-depth, country-specific statistical information. It also provides detailed malarial maps useful when providing recommendations for chemoprophylaxis. The official guideline for travel health was developed by the Infectious Diseases Society of America (IDSA) and was last published in 2006.

As part of its Diversified Revenue Opportunities page, the NCPA Innovation Center has free resources for com-

munity pharmacists looking to offer travel health services (www.ncpanet.org/travelhealth). Links to all of the previously discussed resources can be found here. Downloadable program forms including patient medication history, travel action plans, prescriber authorizations, and consent forms are available.

Along with the CDC and WHO, there are several for-purchase software systems designed to quickly and efficiently provide destination-specific travel reports and patient handouts. These resources pool information from the CDC, WHO, travel health journals, and experts in the field. Some of the more common travel medicine software include Tropimed®, Travax®, Travel Care®, and RoverTravelScript Ltd. These software packages also provide travel health updates and news about guidelines changes. Embassies are also useful sources for local information, disease spread, and country requirements for entry. Lastly, drug information databases are helpful for sourcing information on indications, dosing, and adverse reactions of travel-related medications and immunizations.

Consultation Components

The main purpose of a travel health consultation is to offer assessment and advice to travelers in avoiding infectious diseases, providing travel safety tips, and minimizing of travel-related risks. Recommendations are centered upon evidence-based guidelines and resources from the CDC, WHO, and IDSA. Ideally, consultations should take place 4-6 weeks prior to travel to allow for proper workup, vaccination, and the development of a protective immune response.

Gathering Information

There are two main components of the pre-travel travel workup: assessment of the traveler’s health and risk. When reviewing traveler health, it is important to gather information on the patient’s medical history, including current disease states and medications. Patient age is also an important consideration, as adverse event risk with certain vaccines increases with age (such as yellow fever). When assessing the traveler’s risk, it is essential to consider the reason, season, and duration of travel as these will impact preventative advice and considerations. It is also important to note the manner of travel and planned activities. Trained pharmacy technicians can be instrumental in the information gathering stage of the travel health consultation. Seasoned pharmacy technicians or those with advanced training may be experienced in collecting appropriate patient information, and would be well-suited to collect medical and drug histories. Assessment of patient history could then be evaluated by the travel health pharmacist.

Case Study

You are a travel pharmacist caring for a couple journeying to Vietnam. The couple plans to go to Vietnam for two weeks in October. They will be staying in urban areas with hotel accommodations. However, the husband would like to visit family in a rural farming area and plans to stay an extra two weeks after his spouse leaves. How does the risk differ for the extended-stay traveler versus their spouse staying only two weeks? What additional questions would you like to ask? What components of the husband's style of travel and planned activities increase risk of infectious disease?

Making Recommendations

Both patients and providers are very receptive to pharmacist recommendations, making time invested in travel health services profitable. According to various studies, the acceptance rate for pharmacist-generated vaccine and prophylactic medication recommendations is high. At VDS, overall acceptance rates for recommended travel immunizations and medications are 97 percent from physicians and 94 percent from patients. In general, the majority of patients seeking travel health consultations are heading to less developed nations. At VDS Travel Health Clinic, patients are often preparing for journeys to countries with low per-capita gross national income (72 percent), most commonly in Africa (47 percent) or Asia (34 percent).

Recommendations for travelers to less developed countries often consist of immunizations or prophylaxis against food or vector-borne diseases. Other important recommendations during a travel consultation include education on traveler's diarrhea prevention, insect avoidance measures, motion sickness prevention, and information on food and personal safety. The CDC has valuable lists describing essential components of travel medical kits. Travel health pharmacists could readily provide premade or personalized kits to travelers during consultation (Table 1).

The most commonly recommended immunizations and medications by the VDS Travel Health Clinic are those for yellow fever, typhoid, hepatitis A, and malaria

chemoprophylaxis. There are special requirements for administering the yellow fever vaccination. To comply with International Health Regulations, VDS Travel Health Clinic has obtained certification as a yellow fever vaccination center. To become a CDC certified yellow fever vaccination facility, pharmacies must be authorized through the state health department. Select travelers will need additional recommendations based upon their travel plans. For example, persons heading to Asian countries in summer, fall, or rainy seasons with itineraries near rural agriculture areas may require protection against various mosquito-borne illness including vaccination for Japanese encephalitis and malarial chemoprophylaxis. Travelers' heading to countries in the "meningitis belt" of Africa or religious excursions to Saudi Arabia may require the quadrivalent meningococcal vaccine. Properly assessing travelers' health risks are essential to providing evidence-based recommendations.

Recommendations for routine vaccinations are another important component of the travel health assessment so patients can stay healthy while they are away and when they come back home. The CDC Pink Book and the Advisory Committee on Immunization Practices (ACIP) are free, online resources to assist in routine vaccination recommendations. The VDS Travel Health Clinic regularly administers non-travel vaccines to travel patients with the most common being influenza, tetanus/diphtheria/acellular pertussis (Tdap), and pneumococcal. The most commonly utilized products, counseling points, and considerations from VDS's experience are listed in Table 2.

TRAVEL CLINIC WORKFLOW

Stepwise Patient Care

Understanding successful workflow patterns is essential to implementing a travel clinic. It is also important to designate appropriately trained staff to each stage of patient care. It is recommended that one pharmacist take on the leadership role and obtain additional travel health training. Support staff may include pharmacy technicians able to collect patient information and dispense travel medications, and other pharmacists to aid in obtaining prescription authorization and administering vaccinations.

Table 1. Travel Health Kits: Over-the-Counter Items

Pain relievers	Upset Stomach or Diarrhea	Upper Respiratory Tract Infection	Miscellaneous
Aspirin	Loperamide	Antihistamine	Saline eye drops
Ibuprofen	Bismuth salicylate	Cough suppressant	Saline nose spray
Acetaminophen	Antacids	Decongestant	Sunscreen

Table 2. Special Considerations and Counseling Points for Vaccines

Vaccine/Drug		Dosage	Directions	Special considerations and counseling points
Yellow Fever (YF-Vax®)		0.5 mL	Inject 0.5 mL subcutaneously	<ul style="list-style-type: none"> As a live vaccine, it may not be appropriate for immunocompromised patients. Contains egg protein and gelatin. Subcutaneous injection, must be mixed, and does not come prefilled. Do not give in patients <9 months. Rare, but severe ADRs, must counsel! Significant side effects (rare): encephalitis and multi-organ failure. Must be given 10 days prior to departure or will not be accepted by customs. Must provide International Certificates of Vaccination or Prophylaxis (ICVP) that bears official stamp of certified travel clinic. Copies of the ICPV booklet are available through the U.S. Government Bookstore.
Typhoid (Two Types Available) (Vivotif®)	Oral (Vivotif®) muscular (Typhim®)	4 capsules	Take 1 capsule QOD for 7 days	<ul style="list-style-type: none"> Patients can choose from oral or IM. (Oral) Live, attenuated vaccine, is not appropriate for those immunocompromised. (Oral) Special instructions: must keep refrigerated and drink with room-temp glass of water every other day. Do not administer at same time as antimalarials or antibiotics.
	Intra-muscular (Typhim®)	0.5 mL	Inject 0.5 ml intramuscularly	<ul style="list-style-type: none"> (Oral) Contains gelatin. Different lengths of immunity: (Oral) immunity lasts 5 years; (IM) immunity lasts 2 years. Is not 100% effective; efficacy range 50-80%.
Hepatitis A (Havrix®)		1 mL	Inject 1 mL intramuscularly now, then another 6-12 months later	<ul style="list-style-type: none"> Vaccine series Hep A (Havrix) – Given at 0 and 6-12 months. May be given as soon as travel is considered. Anti-HAV antibodies detectable after 2 weeks. Second dose needed for long-term protection and can be given after travel. Hep A/B (Twinrix) – Given at 0, 1, and 6 months. Large IM dose (1 ml) may cause more irritation/pain at site than other vaccines.
Japanese Encephalitis (Ixiaro®)		0.5 mL	Inject 0.5mL intramuscularly at Day 0 and Day 28	<ul style="list-style-type: none"> Is the only JEV vaccine available in U.S. Is part of vaccine series. Consider a booster if more than a year after primary series if potential for JEV exposure Not usually recommended for short-term travelers in urban areas. Expensive.
Meningitis (Menomune® and Menveo®) Menactra®		0.5 mL	Inject 0.5 mL intramuscularly	<ul style="list-style-type: none"> It is required for patients making the Haji pilgrimage in Saudi Arabia. It is highly recommended for those traveling to meningitis belt in sub-Saharan Africa. Ages 2-55: give quadrivalent vaccines (Menactra® and Menveo®). Age >56 give polysaccharide vaccine (Menomune®).
Rabies (Imovax® and RabAvert®)		1 mL	Inject 0.5 mL intramuscularly on days 0, 7, 21, and 28	<ul style="list-style-type: none"> Vaccine series. Expensive. Not routinely recommended. Consider if patient gone longer than 1 month and high risk (small children, animal work, extensive outdoor exposure).

Table 2. Special Considerations and Counseling Points for Vaccines (Continued)

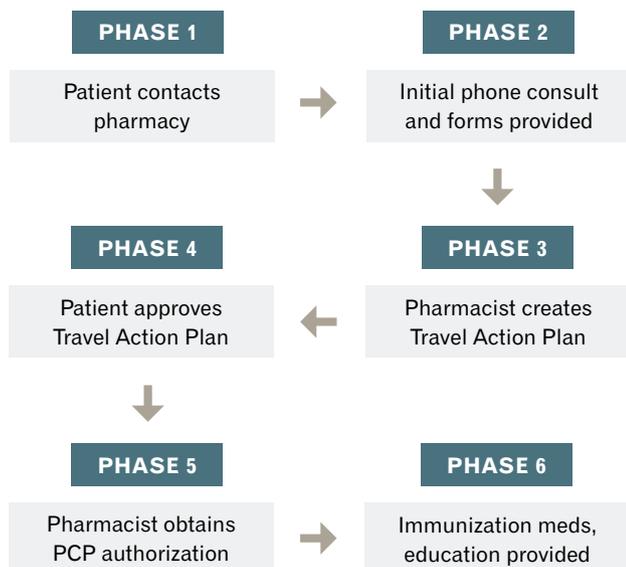
Vaccine/Drug	Dosage	Directions	Special considerations and counseling points
Atovaquone-proguanil	100/250 mg tablets	Take 1 tablet by mouth once daily starting 2 days before travel, once daily during trip, then for 7 days after return	<ul style="list-style-type: none"> • Well tolerated and simple regimen. • Expensive. • Almost zero mosquito resistance. • Most common ADR is stomach upset. • May increase liver enzymes. • Contraindicated CrCl < 30 mL/min.
Doxycycline	100 mg	Take 1 tablet by mouth daily starting 2 days before departure, once daily during trip, and for 28 days after return	<ul style="list-style-type: none"> • Caution with birth control. • May cause increased burning from sun exposure. • Good for patients with acne. • Not for use in children < 8 yrs. • Cheaper but it needs longer dosing schedule compared to atovaquone-proguanil.
Mefloquine	250 mg	Take 1 tablet by mouth weekly starting 3 weeks before travel, weekly while traveling, and for 4 weeks after return	<ul style="list-style-type: none"> • May exacerbate or cause mental health issues. • Contraindicated in seizure history and psychiatric disorders. • May be used in pregnancy. • Ineffective for certain types of malaria, especially in Southeast Asia.
Ciprofloxacin	500 mg	Take 1 tablet by mouth twice daily for 1 day (2 doses) for the treatment of severe diarrhea	<ul style="list-style-type: none"> • First line therapy • Recommendations for duration of therapy vary from 1-3 days of twice daily 500 mg dosing. • High-risk areas for traveler's diarrhea include most of Asia, the Middle East, Africa, Mexico, and Central and South America. • Resistance is developing to fluoroquinolones especially among <i>Campylobacter</i> isolates, notably in Southeast Asia (Thailand). • Counsel patient on what constitutes severe diarrhea: >3-4 unformed or watery stools in 24 hours with symptoms of nausea, vomiting, fever, or bloody stool. • Azithromycin preferred in travelers to Southeast Asia, children, and pregnant women.
Acetazolamide	125 mg	Take 1 tablet by mouth every 12 hrs. Begin 24 to 48 hours before ascent. Discontinue 48 hours after peak arrival or symptoms resolved.	<ul style="list-style-type: none"> • For patients at high risk of high altitude sickness or those with history. • For patients who will be rapidly ascending over 3,500 feet in 1-2 days. • Allergy consideration: Sulfa moiety • Drug interaction: increase in hypokalemia risk.
Deet	4% to 100%	Use only enough repellent to cover exposed skin or clothing.	<ul style="list-style-type: none"> • The higher the strengths, the longer time it will remain in effect after applied. • Concentrations over 50% provide no added protection. • DEET may be used on adults, children, and infants older than 2 months of age.

Case-Based Example of Travel Clinic Workflow: VDS

The VDS Travel Health Clinic is operated by the community pharmacy resident with support of staff pharmacists and technicians. The resident is responsible for following up with travel inquires, patient assessment, travel clinic marketing, travel vaccine inventory, and recordkeeping. Prescription authorization must be obtained for all travel health recommendations with the exception of influenza, pneumococcal, meningitis, and herpes zoster immunizations that may be given under state protocol. The VDS Travel Health Clinic operates two days per week and sees approximately 5-10 patients per month. The clinic volume peaks in the summer months, wanes during the winter, and increases again in the spring.

Figure 1 describes a workflow pattern for travel patient care. Each component can be integrated into the overall pharmacy workflow or exist as a separate service. The timeline from patient contact to completion of the travel consult often takes two weeks, and includes initial consultation, patient workup, prescription authorization, and final consultation. Patient appointments take anywhere from 30-60 minutes and cover administration and counseling of vaccines and travel-related medications, environmental and personal safety considerations, and insect precautions.

Figure 1: Overview of VDS's Travel Health Clinic Workflow



Phase 1: Initial Patient Contact

Patients generally make contact via telephone to inquire about travel health services. At VDS Travel Health Clinic, patients most often find out about travel services through an internet search, by word of mouth, or through

provider referral. A marketing strategy is important to sustaining a travel health clinic. Community pharmacies should be sure develop an online presence for their travel health clinic, establish relationships with providers, and reach out to groups in the community with access to travelers. Potential marketing targets beyond in-store pharmacy patrons include faith-based organizations with mission groups, study abroad groups, travel agents, airports, local health departments, and primary care providers. It is also beneficial to emphasize marketing efforts in more affluent areas that have greater income for travel and travel health services, and educational institutions with study abroad programs.

Phase 2: Initial Consultation and Travel Forms

After the patient reaches out to the travel clinic for information, the travel pharmacist can then take a brief history to determine if the patient is an appropriate candidate for the travel clinic. The clinic will need to collect general demographic and trip-related information. It is useful to know brief details about destination, length of stay, type of travel, departure dates, and the patient's primary care provider. The initial consultation is important as a quick vaccination history and knowledge of traveler itinerary can facilitate the workup process. Patients can also be informed of the travel clinic's operations, fees, and vaccine costs. A trained travel health pharmacy technician would be an excellent candidate to perform the initial consultation and "triage" the travel patient.

The travel patient should complete a set of forms to document medical history, travel itinerary, and consent in order to obtain their personalized recommendations. At VDS Travel Health Center, these forms are provided in-person or via email and include both the Consent/Privacy Policy/Financial Policy Form and the Medical History Questionnaire/Travel Itinerary Form. Patients are also asked to submit prescription insurance information. Important elements of patient data collection are discussed in Table 3. The CDC Yellow Book and IDSA travel health guidelines both offer suggestions for what type of information should be asked of travel patients. Free sample patient forms are available on NCPA's Travel Health page (www.ncpanet.org/travelhealth). The pharmacist can begin the patient assessment after forms are completed and returned.

Phase 3: Pretravel Workup and Travel Action Plan

Per the 2006 IDSA guidelines on the Practice of Travel Medicine, the key goal of a pre-travel visit is to define potential travel health risks. The risk assessment includes a determination of the traveler's health (for example, assess medical conditions that may alter prophylactic recommendations, review immunization history), and assess

Table 3: Elements of the Travel Health Record		
Consent	Financial Policy	Privacy Policy
<ul style="list-style-type: none"> • Patient should consent to receive vaccinations or medications. • Patient should consent to not hold travel clinic responsible for adverse events related to patient refusal of recommendations. 	<ul style="list-style-type: none"> • Describe applicable fees (consultation, administration, missed appointments, etc.). • Consent to total fees and claims paid for at time of service. • Credit and insurance card information (if applicable). 	<ul style="list-style-type: none"> • Describe pharmacy privacy statement. • How information is protected or shared. • HIPAA compliance. • Obtain consent if patient would like to exchange health information via email. • Document patient receipt of privacy policies.
Demographics	Travel Itinerary	Medical and Vaccination History
<ul style="list-style-type: none"> • Name, DOB, telephone number, email, and address. • Provider name and telephone number. • Emergency contact. 	<ul style="list-style-type: none"> • Destination(s). • Flight itinerary.* • Dates of departure and return. • Reason for travel. • Accommodations. 	<ul style="list-style-type: none"> • Medical history and diagnoses. • Medications. • Allergies (esp. to eggs). • Previous ADRs. • Immunization history. • Alcohol or tobacco use.

*Even patients transiting in airports between connecting flights may be required to obtain certificate of yellow fever vaccination for final destination.

risk related to travel itinerary (such as destination, style of travel, duration, reason for travel, and planned activities). Be sure to review the state vaccination registry to confirm the patient's documented vaccines. At this stage, authoritative travel medicine resources are helpful in discerning the appropriate recommendations for patients. Utilize the CDC Yellow Book, CDC Pink Book, WHO website, and drug information resources in concert with the patient's medical and immunization history to develop recommendations. A comprehensive list of preventative recommendations should be developed surrounding the topics listed in Table 4. Travel software is extremely useful to create personalized travel reports and education documents.

Phase 4: Patient Approval

Using a patient-centered approach, VDS's Travel Health Center creates a Travel Action Plan which is discussed or confirmed with the patient. The Travel Action Plan is a form designed by the VDS Travel Health Clinic to relay recommendations to the patient. It lists preventable illnesses, recommended prophylactic agents, and considerations for the patient. Together, the patient and pharmacist determine which recommendations are best suited for the patient's travel risk and needs. This is an ideal time to discuss risk versus benefit of vaccines or medications with the patient. For example, while very safe, the yellow fever vaccine carries the risk of rare, but significant side effects that a travel patient should know about prior to administration. The next step will be to obtain prescription authorization for medications and

Table 4: Important Travel Health Topics

Preventative advice and travel health topics (per IDSA Guidelines)

- Vaccine-preventable illness
- Travelers' diarrhea prevention and treatment
- Malaria prevention
- Insect avoidance measures
- Other vector-borne and water-borne illness
- Personal safety, behavior, and sexual health
- Environmental sickness (related to altitude, temperature, swimming, driving)
- Motion sickness and jet lag prevention and treatment
- Animal bites and rabies avoidance
- Travel medical kits (components and personalization)

vaccinations not available to administer under protocol. It is also reasonable to set an appointment date and time for the final consultation.

Phase 5: Prescription Authorization

A travel service should develop a "Prescription Authorization Form" to facilitate correspondence with primary care providers. This electronic document should contain a comprehensive list of all possible travel recommendations that require a prescription and include name, strength, indication, directions, and quantity of drug listed. This template can be easily modified for each patient and sent to providers electronically or via fax. Plan

for physician response to take 1-3 days. Once authorization is received, the prescriptions should be processed through insurance (if applicable) and the patient should be notified of copays before the appointment. The travel health technician would be instrumental in obtaining prescription authorization and provider follow-up.

Phase 6: Final Consultation

The final stage of the pre-travel patient care process is to meet with the patient to finalize the consultation. Prior to the appointment, the pharmacist or technician should assure vaccinations and medications are ready to administer/dispense. Necessary education handouts and vaccine information statements should also be prepared for all immunizations given. Patients who are obtaining a yellow fever vaccine should also be provided an International Certificate of Vaccination or Prophylaxis (ICVP) or “Yellow Card” that bears the official stamp of the yellow fever-certified travel clinic. Yellow cards can be obtained from the U.S. Government Bookstore in packages of 25 or 100.

When the travel patient arrives, additional consent and medical history may need to be completed. At VDS Travel Health Clinic, the patient will fill out a general im-

munization consent form prior to any vaccinations. These are also used to document vaccine specific information such as lot number, site of injection, and date of administration. Recipients of the yellow fever vaccine also sign a consent form indicating they have been advised of the adverse reactions associated with the vaccine. To improve efficiency, a pharmacy technician can have the prescriptions prepared and ready for the pharmacist to perform the quality assurance check. The final consultation culminates in vaccine administration and the provision of travel advice on topics such as dietary precautions, insect protection, and others described in Table 4.

The in-person appointment is an ideal time for discussing and marketing travel products such as self-care medications, medical kits, mosquito nets, and sprays. Pharmacists should counsel on over-the-counter anti-motility agents for the management of diarrhea, as more than 90 percent of travelers will make errors in what they eat or drink within days of their arrival that can lead to diarrhea. Reinforcing adherence to malarial chemoprophylaxis and insect repellants is especially important, as only 50-60 percent of travelers are fully compliant with antimalarial regimens. The final consultation provides the opportunity to showcase the pharmacist’s travel health expertise and the pharmacy’s products and services.

Table 5: The Travel Service Workflow Breakdown

Phase		Time (min)	Description of Activities
1	Initial Patient Contact	15	Brief information gathering, explanation of services, contact information, emailing of patient forms
2	Initial Patient Consult		
3	Pretravel Workup	20-40	Processing patient forms, assessing information, consultation of travel resources, development of Travel Action Plan, email plan to patient
4	Patient Approval	15	Call patient to discuss recommendations and finalize Travel Action Plan.
5	Prescription Authorization and Pre-Appointment Preparation	30-60	Create prescription authorization for patient-specific travel vaccinations/ medication and send form, call providers to confirm receipt of authorization form, provider follow-up to assess delays (if necessary), create patient profile in pharmacy software, adjudicate prescriptions and resolve rejections (if applicable), contact patient to notify of costs and confirm appointment, and fill prescriptions.
6	Final Consult	30-60	Patient completes any additional paperwork and pays for prescriptions, vaccine administration and counseling, medication counseling, adherence counseling, preventative advice, OTC recommendations, and/or documentation of vaccinations in registry.
Total		110 - 190	Multiple variables affect time to completion including: number of travel patients seen at appointment (e.g. family, couple), patient health literacy, prescriber response time, number of medications filled, etc.).

Staff Time Requirements – Case-Based Example

In the current model at VDS's Travel Health Clinic, it generally takes 2-3 hours to fully process a patient through the clinic. This may be more or less depending on the complexity of the patient and travel clinic workload. The time-based commitment can be shared among several staff members throughout the process or managed by only one professional. It is likely that streamlined integration of travel service would be the most expedient and make the best use of each staff member's strengths. Table 5 breaks down the complete timeline for patient care at the travel clinic.

STARTING A TRAVEL HEALTH SERVICE

Strategic planning and decision making is critical when starting a new service. A SWOT analysis is undertaken to identify internal strengths, weaknesses, opportunities, and threats that may affect the development of a new clinical service. The following is an example of SWOT analysis for a community pharmacy travel clinic:

Strengths

Strengths are defined as those characteristics of a project or business that give it an advantage over others. Potential strengths of a community pharmacy may include:

- Strong community relationships with patients, providers, and organizations
- Established infrastructure, workflow, and resources
- Experience in patient care services and vaccine administration
- Positive reputation
- Effective leadership
- Well-trained staff
- Large patient base
- Community pharmacy resident
- Flexibility (able to provide on-site "travel clinics" to certain groups)

Weaknesses

Weaknesses are characteristics of the project or business that place it at a disadvantage compared to others. Potential weaknesses of a community pharmacy may include:

- Limited resources available (staff, time, space, technology, storage)
- Newly established pharmacy or in process of expansion
- New or untrained staff
- Limited budget to expand inventory
- Time constraints
- Large distance from those populations and groups more likely to travel

Opportunities

Opportunities are elements in the environment that a project or business could exploit to its advantage. Poten-

tial opportunities of a community pharmacy may include:

- Lack of pharmacy competition in the area
- Lack of travel health clinics in the area (or those certified for yellow fever vaccination)
- Access to affluent communities or educational institutions
- Large surrounding population
- Growing interest in pharmacy-based clinics and service (such as walk-in clinics)

Threats

Threats are environmental elements that may put the business or project at risk.

Potential threats of a community pharmacy may include:

- Strong competition in the area
- Less affluent patient population
- Patients and/or prescriber resistance to pharmacist recommendations

Creating a Business Model

Like many other travel clinics, the business model at VDS is based upon the patient's third-party reimbursement or out-of-pocket costs. VDS Travel Health Clinic does not charge a consultation fee if the patient obtains prescriptions or immunizations from the clinic, maintaining a competitive advantage with other clinics in the area. Patients who are provided a Travel Action Plan and do not go on to receive vaccinations or medications are charged a \$25 consultation fee. Reimbursement rates will vary based on patient insurance, and not all will reimburse vaccine administration fees. If fees are built into out-of-pocket vaccine costs, cash-paying patients will generate the most revenue.

Financial Analysis

Important considerations in assessing the financial side of starting a travel health service include:

- Will travel clinic profits cover staff's time?
- Will the travel clinic charge consultation fees? Vaccine administration fees?
- What will be the vaccine/medication profit margin? Will fees be included in "cash" prices?
- How extensive will vaccine inventory be? (Ordering multiple doses at a time can be more cost-effective, but must be weighed against patient volume.)
- What additional inventory will be necessary (travel kits, DEET sprays, mosquito nets)?
- What are the costs of the resources necessary to start a clinic (certification courses, travel software, drug information resources, marketing supplies, vaccination supplies)?

The following are examples of profits gained on different types of travel clinic patients seen at VDS's Travel

Health Clinic. Each case is based on recent, real life patient visits and represents a spectrum of the type of reimbursement seen.

Case 1: The Cash-Paying Patient	
Vaccinations and medications received	Yellow fever, typhoid, influenza, and hepatitis A vaccines; ciprofloxacin; atovaquone-proguanil
Total profit generated above acquisition price:	\$183
Total time spent preparing patient:	2 hours
Gross profit per hour:	\$91.50/hr

Case 2: The Insured Patient with Multiple Prescriptions	
Vaccinations and medications received	Typhoid, Tdap, and hepatitis A vaccines; ciprofloxacin; atovaquone-proguanil
Total profit generated above acquisition price:	\$89.50
Total time spent preparing patient:	2 hours
Gross profit per hour:	\$44.50/hr

Case 3: The Insured Patient – Few Prescriptions	
Vaccinations and medications received	Typhoid and hepatitis A vaccines
Total profit generated above acquisition price:	\$36
Total time spent preparing patient:	2 hours
Gross profit per hour:	\$18/hr

Case 4: The Cash-Paying Family of Six	
Vaccinations and medications received	(6) Yellow fever; (6) typhoid; and (2) hepatitis A vaccines
Total profit generated above acquisition price:	\$430
Total time spent preparing patient:	4 hours
Gross profit per hour:	\$107/hr

Take-Home Points

These case based examples indicate that reimbursement and gross profits on travel health prescriptions are variable depending on the average wholesale price, how the vaccines and medications are paid for (out-of-pocket or prescription insurance), and the amount of time spent by the pharmacist and/or technician on patient workup, administration duties, and consultation. Based on gross profits per hour, a travel health service can pay for inventory costs and associated staff time with room for net profit. These cases do not include opportunities gained by offering a travel service such as attracting new patients, increasing script volume, marketing other wellness services, and expanding sales of front-end products.

CONCLUSION

With more Americans traveling each year, travel health can be a profitable clinical service for community pharmacies. One of the main benefits of travel health is that most community pharmacies are already providing vaccinations. Pharmacies can start small by adding new vaccines to their inventories, seeking additional training in travel medicine, marketing to current patients, and expanding their front-end travel related items. Consider using experienced pharmacy technicians to help lay the foundations of a travel clinic and utilize them to assist in the travel process. VDS's Travel Health Clinic has steadily grown in a few short years despite local competition and only operating a couple of days per week. Travel medicine is distinctive area in which pharmacists can expand patient care and grow their business. ■

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Editor's Note: For the list of references used in this article, please contact *America's Pharmacist* Managing Editor Chris Linville at 703-838-2680, or at chris.linville@ncpanet.org.

Continuing Education Quiz

Select the correct answer.

(Case 1) Hong comes to the clinic five weeks before her travel date and wants to know if she needs any vaccines or medications for her trip. She is a 62-year-old female patient traveling to Thailand in September for a three-week medical mission. Hong describes her accommodations as “simple” but indoors, and will be spending her time in a rural, rice-farming village near the Burma (Myanmar) border.

1. (Case 1) The overall risk of malaria is low in Thailand. However the risk increases near the borders of Burma (Myanmar), Laos, and Cambodia. Which of the following sources would have free, country specific information including maps, drug resistance, and malaria species?

- a. CDC
- b. WHO
- c. Travax®
- d. Tropimed®
- e. CDC and WHO

2. (Case 1) Hong is at risk for other mosquito-borne illness, as she will be in Thailand during the rainy season in an agricultural area. Which of the following vaccines protects against mosquito-borne illness and is part of a two-dose series?

- a. YF-Vax
- b. Havrix
- c. Ixiaro
- d. Typhim

3. (Case 1) Hong will be using DEET products to protect herself from mosquito bites while she is in Thailand. Higher strengths of DEET will provide longer durations of protection, but concentrations over what percentage will offer no additional protection?

- a. 25 percent
- b. 40 percent
- c. 50 percent
- d. 75 percent

4. Pharmacy technicians can play an invaluable role in the travel health workflow. Which of the following tasks is best suited to the skill set of the pharmacy technician?

- a. Documenting the patient itinerary, dates of departure, medication list, and obtaining patient consent
- b. Assessing drug interactions between travel medications and maintenance medications
- c. Scheduling the patient appointment
- d. Both A & C

5. AW is a patient inquiring about travel medications and vaccines for his study abroad. He is concerned because his classmates have all received the typhoid vaccine and he has not. He is also anxious because he is leaving in three days. As the travel health pharmacist you assure him you will do your best to prepare him for his trip. Which of the following is the best reason for why seeking a travel health consultation 4-6 weeks before departure is important:

- a. The patient will have enough time to properly pack the recommended travel kit for their trip.
- b. The patient will have enough time to obtain a consultation appointment, complete certain vaccine series, and develop an immune response.
- c. The patient will be able to complete and submit his visa application.
- d. The patient will have enough time to provide documentation about his medical history and consent forms for evaluation.

6. True or False: The oral typhoid vaccine would be the best option for AW because it can be conveniently completed in one day.

- a. True
- b. False

7. True or False: The oral typhoid vaccine is not 100 percent effective and AW will still need additional counseling on minimizing risk of ingesting contaminated foods or beverages.

- a. True
- b. False

(Case 2) Success Pharmacy is hoping to start a travel clinic and has begun to do some strategic planning for its business venture. Success Pharmacy opened in January 2016 and is located in a prosperous area near a large airport. Half of the staff members are new and still training, but the crew is highly motivated to grow its smaller patient base. There are no other travel clinics in the area.

8. Success Pharmacy is performing a SWOT analysis. What is a potential strength of Success Pharmacy?

- a. Staff in training
- b. Newly opened pharmacy
- c. Located in an affluent community
- d. Smaller patient base

9. What is a potential weakness of Success Pharmacy that may affect the progress of a travel health clinic?

- a. Motivated staff members
- b. Staff in training
- c. Close to travelers (such as an airport)
- d. No other travel clinics are in the area

- 10.** What is a potential opportunity in the environment that puts Success Pharmacy in an advantageous position?
- Lack of competition with other travel clinics in the area
 - It is a new pharmacy in the area and has a drive-thru
 - One of the pharmacists has additional training in travel immunizations
 - The pharmacy is located near a large hospital
- 11.** The owner of Success Pharmacy would like to utilize free educational resources prior to obtaining a Certificate in Travel Health® from the International Society of Travel Medicine. Which of the following are reputable, free resources for travel health clinicians?
- CDC Yellow Book
 - CDC Continuing Education: Yellow Fever Vaccination Course
 - APhA Pharmacy-Based Travel Health Services
 - Both A and B
- 12.** Dr. Parker has been impressed with patient reviews of Success Pharmacy's travel health service and has increased her patient referral to the pharmacy. What is/are the way(s) beyond just revenue generation that Success Pharmacy has profited from its travel service?
- Development of provider trust
 - Increased patient awareness of Success Pharmacy
 - Opportunity to market additional services to travel patients (such as diabetic shoes, compounding, and medication delivery)
 - All of the above
- 13.** At what stage(s) of travel workflow would discussing front-end products or developing a personalized travel medical kit be appropriate?
- When scheduling the patient appointment
 - When discussing the "travel action plan" with a patient
 - During the final in-person consultation
 - Both B and C
- 14.** What type(s) of information should be included on travel patient intake forms?
- Medical history
 - Vaccination history
 - Current medication list
 - All of the above
- 15.** Javier is a patient traveling to Colombia and will be doing some hiking in the Amazon. The following are vaccines the pharmacist has recommended for his trip. Which one will have to be ordered through a special vendor?
- Hepatitis A
 - Yellow fever
 - Pneumococcal
 - Influenza
- 16.** Angela has started a travel service at her pharmacy and has created convenient medical travel kits for her patients. Along with front-end medications, what front-end item(s) would be useful for travelers to be able to purchase?
- Compression stockings
 - Travel size pill boxes
 - Medical ID tags
 - All of the above
- 17.** Angela would now like to strengthen her marketing strategies for her travel clinic. What venue(s) would be appropriate for patient outreach to showcase her pharmacy's travel health service?
- Posting fliers at the mechanic shop next door
 - Selling medical travel kits at the farmer's market
 - Bringing fliers to church mission trip administrators
 - Conducting free diabetic foot exams at the health fair
- 18.** True or False: Travel medications and vaccinations should always be kept separate from non-travel prescription products, and only be filled and checked by the travel health pharmacist.
- True
 - False
- 19.** True or False: Pharmacy technicians should be included in the strategic planning of a travel health service.
- True
 - False
- 20.** Proper determination of staff roles can minimize the burden of starting a new pharmacy service. Which of the following are roles that staff can be responsible for to help support the travel pharmacist?
- Pharmacy intern to counsel patients on medications under pharmacist supervision
 - Front store clerk to provide patients with travel forms on appointment day
 - Pharmacy technician to special order vaccinations from vendors
 - All of the above