

Outline

- I. School Health Center International Standards**
- II. Implementation of the International Standards in the IC Middle & Secondary Infirmary**
- III. The Infirmary Equipment and Medical Supplies**
- IV. Infection Control Measures**
- V. Safety and Security**
- VI. Privacy and Confidentiality**
- VII. Services**
 - i. Medical Services provided by the IC Infirmary**
 - ii. Health Services provided by the IC Infirmary**
- VIII. Policies and Procedures**
- IX. Chancery System**
- X. SWOT Analysis**

I. School Health Center International Standards

1. Design, location and Space Recommendations
 - Floor space of 350 to 550 SF, equivalent to 32 to 46 meter, for student populations of less than 500.
 - Larger dimensions of up to 800 SF, equivalent to 75 meters, should be considered for student populations above 500.
2. According to the National Association of School Nurses, one full time registered nurse can satisfy the needs of 750 healthy students. If the number of students is more than 750, another full time nurse is needed.
3. Bright light from windows should be avoided or curtained in the examination area; it should be quiet and isolated from noises to facilitate hearing tests.
4. Each examination room should have a sink with hot and cold water as well as a mirror.
5. There should be a minimum of one examination room per full-time provider. Each room should have a storage space for first-aid and examination supplies. If the room is to be used for more specialized treatment, consideration should be given to an appropriate number of electrical outlets.
6. A rest area with beds is recommended for sick students. It should be curtained off or divided with a moveable partition. Beds should be positioned in a way to allow monitoring by the school nurse at all times.
7. An internal intercom between other health center offices and an external intercom to the school's administrative offices should be available as well as a paging system for announcements and signaling.
8. School health centers should be inviting to students and the public. There should be noticeable signage (in multiple languages if needed) for the health center. The entrance should be prominent and clearly visible; the wall colors should be relaxing and cheerful; and the overall atmosphere must be welcoming. Furniture should be comfortable providing a sense of safety. This can be achieved with numerous oversized pillows, by staggering seating arrangements, or through the shape, texture, and color of the furniture itself.
9. The Infirmary should be easily closed off from the rest of the school without affecting external access to the health center or internal access to restrooms or administrative supplies.
10. Natural light from windows or skylight is essential to relieve strain and anxiety.

11. There should be a window for ventilation to remove odors and promote circulation of air.
12. The Infirmary should be designed to facilitate infection control practices and universal precautions as defined by Occupational Safety and Health Administration (OSHA) regulations. This includes environmental sanitation; cleaning and sterilization of equipment and supplies; and collection, storage, and disposal of hazardous and medical waste.
13. A utility area should have designated clean and soiled spaces for clinical functions and disposal of waste.
14. Finishes on all surfaces, including floors, walls, counter tops, beds and all other fixtures in the clinic should be washable and waterproof due to exposure to blood and other body fluids.
15. There should be an easy exit from clinic to outside of the school building to accommodate Emergency Medical Services and the transport of injured or sick students.
16. Medical emergency vehicles or Ambulance should have easy access to the health center in case of emergency or necessary transportation to the hospital.
17. An evacuation plan is needed and the evacuation route should be prominently displayed.
18. Fire System alarm, Fire Pac kit and Fire extinguisher are required.
19. Private office space should be provided for each full-time provider. Each office should be wired for telephone, computer, and modem access to the Internet.
20. The waiting area should not be visible from an external corridor in order to secure privacy of students at all times. The examination room should be secluded from the rest of the health center by walls or movable partitions, and the phone should be in a private or semi-private enclosure to ensure safety and security.
21. A one-way observation window for office staff to observe clinic activity when the school nurse is not in the clinic is advisable. The window should have a covering curtain for privacy when the school nurse is conducting an examination or consultation.
22. The mental and physical health of students should be confidential. Therefore, the health center should be equipped with locking filing cabinets for students' and employees' health records.

23. There should be storage spaces for medical supplies and medications. Each cabinet must be locked separately with its own key.
24. All administrative files, information, and equipment must be out of the patients' reach.
25. There should be a private office for the school nurse to make phone calls or conduct consultations within the clinic.
26. The door to the clinic should not have a low window in order to maintain privacy within the clinic. If a window is in the door, the door should open into a waiting area rather than the exam/treatment room.
27. There should be a sink with mixing hot and cold running water with a mounted soap dispenser and an automated, hands-free, paper towel dispenser. The paper towel dispenser should not be mounted above an electrical outlet. Foot controls for sink should be considered for hands-free use or sink handles that can be turned on and off with the elbow. Sinks should be available both inside and outside toilet facility.
28. Location of the sink should be outside the toilet area within the clinic and not shared with other personnel. Sink height may be adjusted to accommodate height of the student population using it as a consideration for flushing of eyes, chemical spills, and cleanup of body fluids.
29. A water fountain attachment for taking medications and a flexible sprayer (to direct flow of water at various angles) should also be available.
30. Toilet facility should meet ADA standards for access and be large enough to contain a storage cabinet for medical supplies and feminine products. The toilet should accommodate the height of students who will be using it. Ventilation in the toilet facility with an exhaust fan to the outside of the building is necessary.
31. Equipment should be durable and easily sanitized.
32. A refrigerator with automatic ice maker is necessary. A secure and lockable area in the refrigerator is needed for cold storage of medications or vaccines.
33. The school health center must be equipped with all first-aid and emergency medical supplies and equipment.

II. Implementation of the International Standards in the IC Middle & Secondary Infirmary

1. Despite the space limitation, the new design plan of the IC Infirmary is now visibly clear and well organized.
2. A second RN recruitment was done because the student population of the middle and secondary schools is above 1400 students.
3. The examination room is separate from the reception area and has a private door to isolate it from sounds and noises. All windows are now curtained with new off-white curtains that ensure privacy and decrease bright light.
4. Each examination room has sink with hot and cold water. A new sensor sink is now in place to avoid touching the sink, prevent spread of bacteria, and ensure needed medical hygiene. A mirror is placed above.
5. Each room is now provided with a storage space for first aid. Medical supplies and all equipment are kept locked and are labeled properly. Any item needed are located clearly and easily. All the supplies are removed from boxes and placed in special plastic Tupper-ware to prevent dust. Two new store cabinets are now available in the examination room. A wall mounted cabinet and another cabinet with three locked partitions are placed in the treatment room. First aid kits are available in the examination and treatment room, and all items needed are available in each kit. Both rooms are equipped with portable and wall-mounted oxygen bottles (Nasal cannula and oxygen face mask are available).
6. A new treatment room was designed for sick patients or students which is properly equipped with all needed medical items. There is a space for only one bed because the filing cabinet is located in the same room. A movable partition is available to ensure privacy.
7. An internal telephone, communication line with other health center offices and the school's administrative offices is available.
8. The new IC infirmary design is fresh with cheerful colors and creative posters which offers a welcoming atmosphere for students, parents and employees. The reception area, furnished with modern leather couches, is new and relaxing. Flowered wall paper and a LCD television add to the unique and friendly atmosphere. The television with DVD is used to show programs of health education health topics. Signage is now available for students' and patients' guidance. The infirmary space is now visibly clear and well organized.
9. The IC infirmary does not interfere with any external or internal access to restrooms or administrative supplies of the school.

10. The Infirmary has four big windows that ensure natural and relaxing sunlight; all windows are clean and well maintained.
11. Windows for ventilation to remove odors and promote circulation of air are available.
12. Cleaning and sterilizing medical equipment is now done by the school nurse using a disinfectant solution on soiled instruments. Collection of blood tubes is done twice per week. Tubes are sent labeled to the AUBMC Lab in a specific Biohazard container. All the medical supplies are stored properly in two store cabinets.
13. Not Applicable for the utility area.
14. All new stretchers and furniture in the clinic are washable, waterproof according to the recommended standards. A disinfectant spray cleaner is now used to clean furniture on a daily basis.
15. Exit from the clinic to outside of the school building to accommodate Emergency Medical Services and transport of injured or ill students is already available.
16. In case of emergency, medical emergency vehicle or ambulance access to the health center is available to facilitate transportation to the hospital. In case of any school emergency, a new emergency kit is now ready for use during any urgent transportation.
17. The Infirmary Evacuation plan is part of IC's evacuation plan. A map of the evacuation route is prominently displayed.
18. A Fire System alarm, Fire Pac kit, Fire mask and two Fire extinguishers are now available in our Infirmary for any fire emergency.
19. Private office space is provided for each full-time provider. Each office is now wired for telephone, computer, and Internet access.
20. The IC Middle and Secondary School Infirmary is not visible from any external corridor. The examination room is separate from other infirmary sections which ensure the privacy and safety of our students and patients.
21. Not applicable for the one-way observation window.
22. The IC Infirmary is newly equipped with locked filing cabinets for students and employees. All medical charts are reorganized; each cabinet is now locked separately with its own key. All administrative files and information are kept out of the patients' reach to ensure the privacy of medical records.

23. Two new storage cabinets are now available in the examination room. A wall mounted cabinet and another cabinet with three locked partitions are placed in the treatment room.
24. All administrative files, information, and equipment are now out of patients' or students' reach.
25. There is a visible partition of the school nurse's office. It separates the nurse's desk from the waiting area, but allows the nurse to observe all the clinic activities. The partition is made from glass and is curtained. Whenever a student or an employee has a consultation or a private issue to discuss with the nurse, the curtains will be closed.
26. Our doctor's clinic door has no window; the door opens into the waiting area.
27. Sinks are now sensor with a mounted soap dispenser. A paper towel dispenser is not mounted above an electrical outlet.
28. Sinks are already available outside and inside the toilet facility. The outside one is used for eye washing as well.
29. A water dispenser for taking medications is now available.
30. The toilet is now renewed according to the ADA standards; it's large enough to contain storage cabinet for medical supplies and feminine products. It is ready for handicap use. Ventilation system, new toilet sink, and a chair are in place. The cabinet contains a place to store urine cups.
31. New easily sanitized and durable furnishings have been purchased.
32. A refrigerator with automatic ice maker and a secure lock have been purchased.
33. The IC Middle and Secondary Infirmary is now equipped with all first-aid and emergency medical supplies and all needed equipment.

III. The Infirmary equipment and medical supplies

The list below is recently purchased equipment and medical supplies for the Middle and Secondary Infirmary at IC:

1. Physical examination bed with GYN exam facility
2. Computer with internet connection for record keeping and accessing web resources
3. Telephone with a separate line for emergency calls
4. Fax machine for sending and receiving health information
5. File shelves for paper reference and documents
6. Two bulletin boards for health education topics and promotion materials
7. Refrigerator with automatic ice maker and secure lock
8. Two new air-condition units are placed in the infirmary and special maintenance was applied to the other units available in the doctor's clinic and the examination room.
9. New printer and photocopy machine
10. New chairs for the waiting and examination area
11. New modern waiting area with leather couches
12. LCD and DVD player for health topics and education
13. First Aid kit that includes all first aid supplies
14. Burn Kit that includes all burn supplies
15. CPR Kit that includes ambu-bag and resuscitation supplies
16. Sport-o-pac kit that includes all supplies needed for sports accidents or injuries
17. Emergency kit for urgent transportation to the hospital
18. Pulse Oxymeter to measure oxygen in blood and heart rate
19. Vision testing charts

20. Diabetic monitor
21. EKG machine
22. Arm slings, finger splints and wrist guards
23. Wall-mounted blood pressure cuff
24. Re-charging portable otoscope and ophthalmoscope
25. Adult and baby scales and measuring rods
26. Personal protection kit, surface disinfectants and Biohazard Products, Antiseptic cleaners and closures
27. Sick bags
28. Stethoscopes
29. Petrolatum gauze pads
30. Sterile Dressing sets
31. Orthopedic supports
32. Inhalants
33. Scissors and instruments
34. Nebulizer machine, oxygen bottles
35. Single use vaginal speculum
36. Sharps Containers
37. Biohazard and Normal waste containers
38. Disinfectant solutions and wall-mounted hand sanitation and disinfectant
39. Hot and cold packs
40. Wheelchair
41. Curette ear wax

42. Sterilizer

43. AED machine

44. Ambulance

IV. Infection control measures

1. The IC Infirmary is now following infection control practices and universal precautions as defined by Occupational Safety and Health Administration (OSHA) regulations. This includes promoting environmental sanitation; cleaning used equipment and medical supplies; and collecting, storing, and disposing of hazardous and medical waste. The Infirmary floor is now covered by vinyl which is recommended for clinics and hospitals for hygienic purposes.
2. The IC Infirmary is following good hygiene practice and taking preventive measures in order to prevent the spread of infections.
3. Hand washing is one of the most important ways of controlling the spread of infections, especially those that cause diarrhea, vomiting, and respiratory disease. The recommended method is using liquid soap, warm water and paper towels. Always wash hands after using the toilet, before eating or handling food, and after handling animals. All cuts and abrasions must be covered with waterproof dressings.
4. Coughing and sneezing easily spread infections. Therefore, children and adults at school should be encouraged to cover their mouth and nose with a tissue and wash hands after using and disposing of tissues. Spitting should be discouraged.
5. Personal protective equipment (PPE), disposable gloves and plastic aprons must be worn where there is a risk of splashing or being contaminated with blood/ body fluids; for example, when a student is bleeding.
6. Cleaning of the environment, including medical supplies and equipment, as well as toys at the preschool infirmary should be frequent, thorough and following national guidelines.
7. Cleaning of blood and body fluid spillages: All spillages of blood, feces, saliva, vomiting, nasal and eye discharges are cleaned up immediately (always wear PPE). We use a product that combines both a detergent and a disinfectant. Disposable paper towels are used and discarded in clinical waste.
8. Children's soiled clothing should be bagged to take home, never rinsed by hand or at school. Wearing PPE when handling soiled linen is necessary.
9. Sharps are discarded straight into a sharps container and then sent for incineration.
10. Animals, such as cats in school may carry infection. Students are asked to always wash their hands after handling animals. Health and Safety Executive (HSE) guidelines for protecting the health and safety of children are followed. Animals are kept away from food areas.

11. Some children are vulnerable to infection such as these being treated for leukemia or other types of cancer, taking high doses of steroids, or having other conditions that seriously reduce immunity. These children are particularly vulnerable to chickenpox or measles; and if exposed to either of these, the parent should be promptly informed and further medical advice should be sought. It may be advisable for these children to have additional immunizations; for example, pneumococcal and influenza vaccines.
12. Immunization record should always be checked at school entry and at the time of any vaccination. Parents should be encouraged to have their child immunized. IC staff should also undergo a full occupational health examination prior to employment which includes updates of immunization record.

V. Safety and Security

1. All electrical outlets and wires are now available and placed safely for all equipment where needed.
2. Hazardous wastes are now placed in specific trash bags and sent for incineration.
3. A medication cabinet is now available in the treatment room which is always locked.
4. Collection of blood tubes is sent labeled to the AUBMC Lab in a specific Biohazard container. All the medical supplies are stored properly in the two storage cabinets.
5. A new Emergency kit is now ready for any urgent transportation. It is fully equipped with all First Aid supplies, a CPR kit, an Ambu-bag, a portable oxygen bottle, a portable blood pressure machine, and a pulse oxymeter that measures O₂ saturation in blood and heart rate.
6. Fire System alarm and Fire extinguishers are ready to use in any fire emergency.

VI. Privacy and Confidentiality

1. Distinguish student health information from other types of school records.
2. Extend to school health records the same privacy of medical records.
3. Establish standardized values for gathering and recording student health information.
4. Establish policies and standard procedures for protecting confidentiality during the establishment and documentation of student health records.
5. Require written informed consent from parents to discharge medical diagnoses to other school personnel.
6. Establish policies and procedures for requesting needed health information from outside sources and for releasing confidential health information only with parental consent.
7. Assure the safety of students by sharing health information when necessary only.
8. Understand the needs of students and keep it private because the issues that students are sharing with the school nurse are different from the past. The role of the school nurse is now different as well. Today, students are bringing to school many complaints such as depression, eating disorders, substance abuse, physical abuse, and chronic diseases that require professional skills, a clear standard of practice and a high level of privacy and confidentiality.
9. Develop standard protocols about issues of confidentiality.
10. All health information should be considered confidential. Procedures and protocols should be developed to address the management of school health information and assure that protections are in place. The ethical responsibility of school nurses is critical in considering issues of confidentiality. The responsibility of school nurses is described in the Scope and Practice of School Nurses adopted by ANA and NASN in 2001, and should be reinforced in training for new school nurses and in ongoing in-service opportunities for experienced school nurses.

VII. Services

i. Medical services provided by the IC Infirmary:

1. Providing First aid treatment for any accident or health problem
2. Providing Emergency treatment according to international standards
3. Providing treatment for any illness at school
4. Diagnosing diseases and other health problems
5. Administering medications
6. Inserting IVs
7. Performing EKG test
8. Dextro and blood test
9. Issuing health care intervention orders
10. Consulting with appropriate school personnel concerning the health of a student
11. Providing health education
12. Identifying health and safety concerns
13. Identifying communicable diseases and recommending treatment when appropriate
14. Promoting healthy life styles
15. Promoting community involvement
16. Supporting and advocating nutritious food
17. Ensuring food safety at school

ii. Health services provided by the IC Infirmary:

1. Development and implementation of individualized health care plans for students with special health care needs or those with chronic health conditions
2. Health counseling
3. Mandatory screenings like vision, hearing, immunization status, evaluation of TB testing for new school employees, etc...
4. Monitoring for the presence of infectious diseases and using the public health precautions to prevent the spread of infection in the school
5. Skilled nursing services for students
6. Case management for students with chronic and special health care needs
7. Development and implementation of emergency health care plans and the provision of emergency care and first aid
8. Acting as a liaison for the school, parents, and community health services
9. Collaboration with other school professionals to address student's health and their educational needs
10. The Chancery System is now implemented; any procedure done to students visiting the infirmary is documented electronically and a report is issued at the end of each month describing the number of students, the reason for visit, the diagnosis and the treatment or process done.

VIII. Policies and Procedures

Policies and procedures implemented at IC school health centers:

1. Conducting a physical examination
2. Conducting hearing and vision screening
3. Administering medication
4. Documenting medication
5. Handling medication properly
6. Inserting IVs
7. Measuring vital signs
8. Performing blood test and laboratory procedures
9. Documenting and requiring school entry immunizations
10. Performing EKG test
11. Health assessment and records
12. Identifying and managing chronic health problems
13. Assessing and facilitating students education needs
14. Monitoring of sick or ill student
15. Ensuring disease safety precautions
16. Prevention and control of Communicable Disease
17. Providing First aid tips
18. Planning emergent situations
19. Transporting sick or injured students
20. Implementing disease management
21. Issuing medical prescriptions or referrals

IX. Chancery System

1. The Chancery System is now used for medical documentation.
2. Any medical or health procedure performed on students visiting the infirmary is documented electronically.
3. A report is issued at the end of each month describing the names of students visiting the infirmary, the number, the school, the reason for visit, the diagnosis and the treatment or process done.
4. This documentation is essential for the infirmary's monthly and yearly reports as well as for the continuity of care for each student and employee.
5. The Chancery System is private and confidential.

X. SWOT

Strength

- Five full time nurses
- Well experienced and knowledgeable nurses
- International standards applied
- Renovation of Elementary, Middle & Secondary school Infirmary and the Preschool infirmary is underway
- Physicians are available at school on daily basis according to an assigned schedule
- Medical & Nursing services provided to students, employees and their families and retirees (referrals, monthly NSSF, laboratory services)
- Chancery program is implemented for students
- Strong communication chain between nurses and schools
- BLS sessions updated for nurses

Weakness

- We are not a part of an international nurses association

Opportunities

- Few participation in seminars and workshops

Threat

- No International Certification for Nurses