

Possible engineering controls for different healthcare and social service settings

The following are possible engineering controls that could apply in different settings. Note that this is a list of suggested measures whose appropriateness will depend on a number of factors.

	Hospital	Residential Treatment	Non-residential Treatment/ Service	Community Care	Field Workers (Home Healthcare, Social Service)
Security/silenced alarm systems	<ul style="list-style-type: none"> · Panic buttons or paging system at workstations or personal alarm devices worn by employees 			<ul style="list-style-type: none"> · Paging system · GPS tracking⁷ · Cell phones 	
	<ul style="list-style-type: none"> · Security/silenced alarm systems should be regularly maintained and managers and staff should fully understand the range and limitations of the system. 				
Exit routes	<ul style="list-style-type: none"> · Where possible, rooms should have two exits · Provide employee 'safe room' for emergencies · Arrange furniture so workers have a clear exit route 		<ul style="list-style-type: none"> · Where possible, counseling rooms should have two exits · Arrange furniture so workers have a clear exit route 		<ul style="list-style-type: none"> · Managers and workers should assess homes for exit routes
	<ul style="list-style-type: none"> · Workers should be familiar with a site and identify the different exit routes available. 				
Metal detectors – hand-held or installed	<ul style="list-style-type: none"> · Employers and workers will have to determine the appropriate balance of creating the suitable atmosphere for services being provided and the types of barriers put in place. · Metal detectors should be regularly maintained and assessed for effectiveness in reducing the weapons brought into a facility. · Staff should be appropriately assigned, and trained to use the equipment and remove weapons. 				
Monitoring systems & natural surveillance	<ul style="list-style-type: none"> · Closed-circuit video – inside and outside · Curved mirrors · Proper placement of nurses' stations to allow visual scanning of areas · Glass panels in doors/walls for better monitoring 		<ul style="list-style-type: none"> · Closed-circuit video – inside and outside · Curved mirrors · Glass panels in doors for better monitoring 		
	<ul style="list-style-type: none"> · Employers and workers will have to determine the appropriate balance of creating the suitable atmosphere for services being provided and the types of barriers put in place. · Staff should know if video monitoring is in use or not and whether someone is always monitoring the video or not. 				

Employers and workers should determine the most effective method for ensuring the safety of workers without negatively impacting working conditions.

	Hospital	Residential Treatment	Non-residential Treatment/ Service	Community Care	Field Workers (Home Healthcare, Social Service)
Barrier protection	<ul style="list-style-type: none"> • Enclosed receptionist desk with bulletproof glass • Deep counters at nurses' stations • Lock doors to staff counseling and treatment rooms • Provide lockable (or keyless door systems) and secure bathrooms for staff members (with locks on the inside)—separated from patient/client and visitor facilities • Lock all unused doors to limit access, in accord with local fire codes 	<ul style="list-style-type: none"> • Deep counters in offices • Provide lockable (or keyless door systems) and secure bathrooms for staff members (with locks on the inside)—separated from patient/client and visitor facilities • Lock all unused doors to limit access, in accord with local fire codes 	<ul style="list-style-type: none"> • Deep counters • Provide lockable (or keyless door systems) and secure bathrooms for staff members (with locks on the inside)—separated from patient/client and visitor facilities 		
	<ul style="list-style-type: none"> • Employers and workers will have to determine the appropriate balance of creating the suitable atmosphere for the services being provided and the types of barriers put in place. 				

	Hospital	Residential Treatment	Non-residential Treatment/ Service	Community Care	Field Workers (Home Healthcare, Social Service)
Patient/client areas	<ul style="list-style-type: none"> Establish areas for patients/ clients to de-escalate Provide comfortable waiting areas to reduce stress Divide waiting areas to limit the spreading of agitation among clients/ visitors 	<ul style="list-style-type: none"> Establish areas for patients/ clients to de-escalate Provide comfortable waiting areas to reduce stress Assess staff rotations in facilities where clients become agitated by unfamiliar staff 	<ul style="list-style-type: none"> Provide comfortable waiting areas to reduce stress 	<ul style="list-style-type: none"> Establish areas for patients/ clients to de-escalate 	<ul style="list-style-type: none"> Establish areas for patients/ clients to de-escalate
	<ul style="list-style-type: none"> Employers and workers will have to determine the appropriate balance of creating the suitable atmosphere for the services being provided and the types of barriers put in place. 				
Furniture, materials & maintenance	<ul style="list-style-type: none"> Secure furniture and other items that could be used as weapons Replace open hinges on doors with continuous hinges to reduce pinching hazards Ensure cabinets and syringe drawers have working locks Pad or replace sharp edged objects (such as metal table frames) Consider changing or adding materials to reduce noise in certain areas Recess any hand rails, drinking fountains and any other protrusions Smooth down or cover any sharp surfaces 			<ul style="list-style-type: none"> When feasible, secure furniture or other items that could be used as weapons Ensure cabinets and syringe drawers have working locks Pad or replace sharp edged objects (such as metal table frames) Ensure carrying equipment for medical equipment, medicines and valuables have working locks 	<ul style="list-style-type: none"> Ensure carrying equipment for medical equipment, medicines and valuables have working locks
	<ul style="list-style-type: none"> Employers and workers will have to establish a balance between creating the appropriate atmosphere for the services being provided and securing furniture. 				

	Hospital	Residential Treatment	Non-residential Treatment/ Service	Community Care	Field Workers (Home Healthcare, Social Service)
Lighting	<ul style="list-style-type: none"> Install bright, effective lighting—both indoors and outdoors on the grounds, in parking areas and walkways 			<ul style="list-style-type: none"> Ensure lighting is adequate in both the indoor and outdoor areas 	<ul style="list-style-type: none"> Work with client to ensure lighting is adequate in both the indoor and outdoor areas
	<ul style="list-style-type: none"> Ensure burned out lights are replaced immediately. While lighting should be effective it should not be harsh or cause undue glare. 				
Travel vehicles	<ul style="list-style-type: none"> Ensure vehicles are properly maintained Where appropriate, consider physical barrier between driver and patients 			<ul style="list-style-type: none"> Ensure vehicles are properly maintained 	

⁸ Referenced on the Substance Abuse and Mental Health Services Administration's website on February 25, 2013 (www.samhsa.gov/nctic).