

University of Michigan MHealthy

Ergonomics Awareness Grants and Awards Program 2007-2008



Grants 2007-2008

- Through this third year of the ERGO Grant Incentive Program, the team had \$45,000 available to help departments improve safety.
- The team received 39 requests for funds totaling \$423,000
- 12 University units received grants to supplement their cost share. Winners received up to \$15,000 to purchase equipment, train staff or redesign work processes to ergonomically improve the comfort and safety of University of Michigan faculty and staff.



Dearborn Stairway Relocation

Before

The stairs faced a wall with a sharp 180 degree turn. When technicians carried piping, heavy valves, pails, barrels, etc-this sharp turn caused stress on knees backs, etc. By moving the stairs 180 degrees the technicians will exit to a clear opening in the floor of about 15 feet with no obstructions.



After

Staff frequently move 50 gallon barrels on the steps and are very happy about the new design due to their improved comfort and safety



Ann Arbor Construction Services Adjustable Height Tables

Before

Each man had to bend or stretch most of the day at their bench depending on the size of the work piece. This can be very difficult and hard physically on backs and arms.



After

Cabinetmakers no longer have to bend over or reach for long periods of time. Employees are much more comfortable performing daily tasks. All of the cabinetmakers have mentioned, on many occasions, how great the new tables work and how much easier it makes some of their tasks.



Flint Cashiers Office Equipment

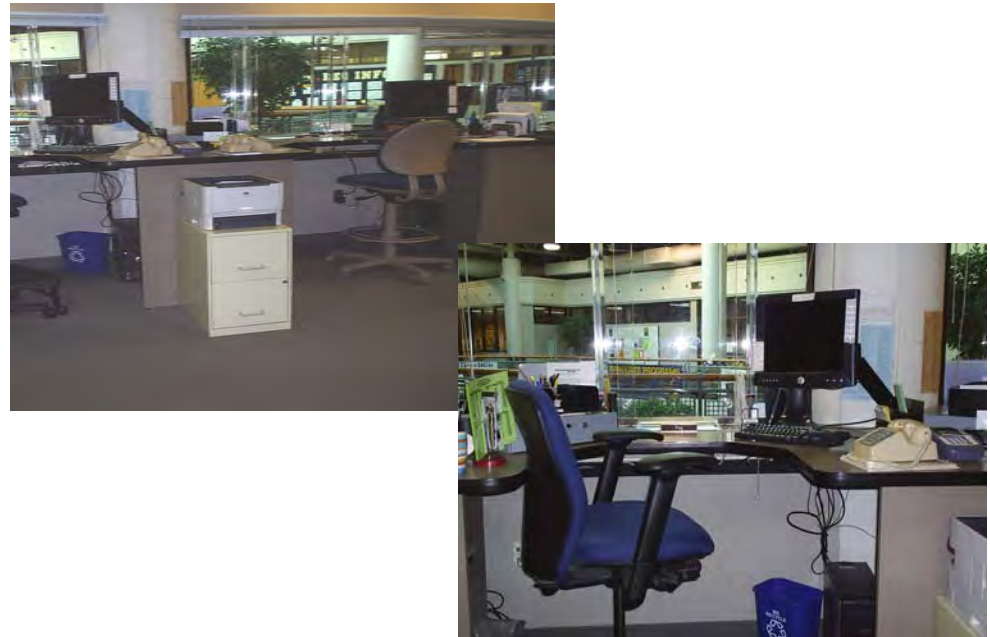
Before

Cramped desk area, turn to monitors at side, cramped leg space, high counter, reach to customers, insufficient arm and leg support



After

Adjustable stools with arm & foot support, limited reach with new cut out counters, monitors adjusted on arms, storage increased. The tellers are working without neck strain, shoulder pain, back pain.



Ann Arbor Plant Dept. Power Pallet Jack

Before

The Central Power Plant has equipment that may weigh over a ton. Staff need to move motors and load equipment onto trucks.



After

Less strains and stresses on employees utilizing this equipment when moving heavy objects. Most comments have been on how the equipment has made it much easier to move heavy objects and the reduction of possible injuries.



Ann Arbor ULAM Feed Carts

Before

The majority of ULAM animal rooms are limited in space and use a 32 gallon covered Rubbermaid Brute bin to place two 33# bags of chow inside. Technicians had to use awkward postures to bend and scoop the food, and this is a repetitive task.



After

Reduced the need to bend into the deep 50 gallon food containers plus reduced the awkward postures at the wrist related to scooping the food up and out.



Ann Arbor Pathology Syringe Pumps

Before

The procedure required repetitively exerting considerable force on the syringe. The staff often experienced wrist pain and muscular fatigue.



After

The use of the syringe pump completely eliminates the need to manually apply suction and pressure to the syringe during dilutions. “This is great.” “My pain is gone.” Staff report improved job satisfaction.



Ann Arbor Paleontology Articulating Microscope Stand & Magnifier Lens

Before

Microscopes were attached to fixed arm boom stands. Staff wore magnifying glasses, and hunched down over the glass window in the box. There were constant complaints about discomfort.



After

Staff report that these make their work much easier, reduce back strain, improve efficiency, improve the quality of work.

These are ““really clever and way cool.”



UMHS Survival Flight Electric Stretcher

Before

Staff needed to forcefully bend, twist, and jerk to raise and lower the stretcher. The isolette was heavy, it had to be raised or lowered manually, it had to be loaded into vehicles in the fully upright position; it was top heavy and had a high center of gravity resulting in instability.



Manual operation

After

Electronic Easy lift-assist reduces force and awkward postures, also has less jerking motion for patients and sensitive equipment. The need for lifting has been reduced as well as potential for tipping of the unit during movement.



Electric



UMHS PM&R Physical Therapy Adjustable Height Mat

Before

The therapist had to reach forward and keep the patient load farther away, the therapist had to do much more lifting in an inefficient way. Many therapists treating such patients have had complaints of back pain.



After

Staff is able to be closer to the patient and decrease their risk for injury, decrease the assist needed by staff, improve the flow of work in our clinic. Reported improve job satisfaction.



Dearborn Taubman College of Architecture and Urban Planning Tables

Before

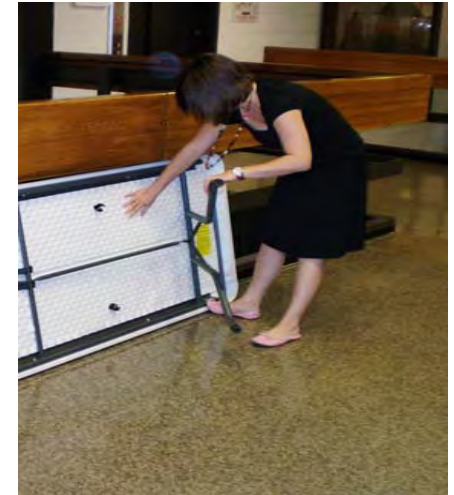
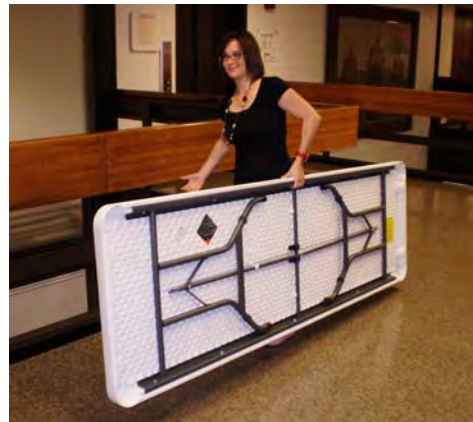
The tables weighed about 65-70 lbs. each and they were quite tricky when setting them up, The legs locked in place (or sometimes didn't lock in)



After

An 8-foot table can be carried by a single employee, with one hand, or with a cart. The hands are far away from an area that would pinch. Staff members report a great decrease in physical strain. The quieter tables reduce overtime.

"I don't dread having to move tables around for events anymore." "These are amazing." "So much time and manual labor is saved."



UMHS Home Care Driver Space in Delivery Van

Before

Cramped space for drivers that delivered between Ann Arbor and throughout Michigan, including full days of driving. Limited leg room, head room and having to sit in awkward postures for long periods of time.



After

Improved arm and leg room for drivers. Employees report reduced levels of discomfort



Flint Facilities Pedalift

Before

Employees had to put strain on their back and legs for heavy lifting



After

Eliminates any lifting that is from the floor and potential back injuries. Results are excellent employee job satisfaction, efficiency increase, saves on dropping and scratching equipment. Shared with other departments.



Awards 2007-2008

Six University units received
The Effective Ergonomic Solutions Award,
recognizing departments that implemented
ergonomic solutions on their own.



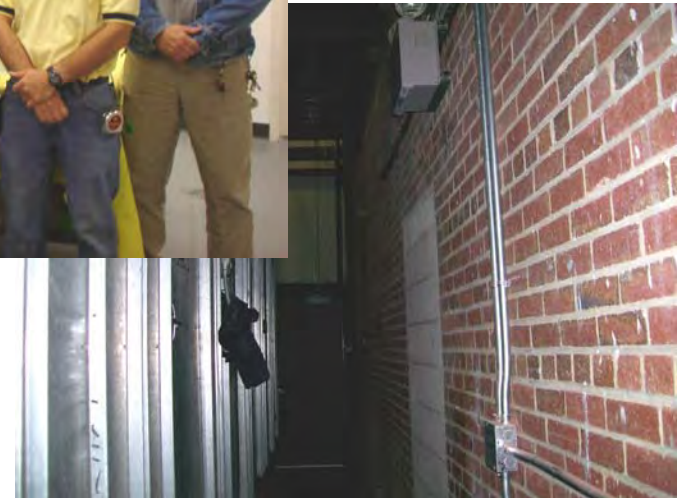
UMHS 6B Nursing Transfer Sheets

Staff do lots of heavy lifting and transferring of our liver and kidney pts. Staff now have blue transfer sheets for all rooms. This has been excellent, most of transporters can't believe the difference these sheets make. This also is so much better for patients especially when hurting and in pain. Staff think these have saved many backs.



Ann Arbor Zone Maintenance Walkway to Supply Fan

Walkway installed to improve access to top level previously accessed only using an extension ladder. Before the improvement, the access door had to be pulled open and was difficult to do.



Ann Arbor Mail Services Touch Screen Access

Our old monitors were on shelves above our work stations, which we had to look up to see for a visual reference. Our new equipment uses a touch screen monitor, and we would have to reach above shoulder height several times during every transaction, possibly thousands of times per day. The whole team really came together, from conception to planning to execution, creating a proactive solution.

Now that the new equipment is installed, we have ERGO SUCCESS! The monitor arms allow the flexibility for each individual to adjust their monitor to a comfortable position.



Ann Arbor Psychology Dept. Photo Display Racks

Dept. used some old shelves from storage and the table saw to cut some angled grooves but also angled the rack back away from user (or the picker upper of the photos). They could easily find their sleeves because now you could present them open with the picture facing out. The operator would just place the sleeve in the rack and not have to touch it again. There is a table we use that is long and skinny and I have built 4 racks. The were very functional, reduced reach and repetitive motion, and the department photo crew really liked them. We get a lot of praise for doing this.



Unit for Laboratory Animal Medicine (ULAM) Ergonomics/Safety Walkabouts

A team was formed to perform walkabouts, walking through different work sites to observe and analyze staff work processes and equipment/area safety. The team consists of a staff trainer from ULAM, an environmental technician from OSEH, and an occupational therapist from MHealthy. Based upon their recommendations, staff may be retrained, a work process might be changed, and equipment might be repaired or replaced. Staff and their supervisors were made aware that workplace health begins on the day the new employee starts.



UMHS Security and Entrance Services Mobility Device

New building construction and restructuring creates small wedges of outdoor space and odd-shaped grassy nodes that are inaccessible to a standard-size patrol vehicle. Consequently, a time consuming foot patrol is required of these areas, risking leg and foot fatigue. Security and Entrance Services has incorporated a new, one-person motorized scooter to reach secluded and normally unreachable areas of the medical campus. This development has improved the response time to these areas and has lessened the physical demands on leg and feet muscles of increased foot patrols.

