

HEALTH ENGINEERING STRATEGY

A health engineering strategy is designed to **change the structure or types of services or systems of care to improve delivery of public health services** (e.g., air filters, nicotine replacement products, improved mammography equipment, new vaccines to prevent communicable diseases, new drugs to treat chronic diseases).

Health engineering CAN achieve several objectives:

- Provide safer alternatives to the behavior that causes the health problem (e.g., Nicotine patches provide a safer way of delivering nicotine to the body for those who cannot quit smoking “cold turkey.”)
- Lower barriers to positive health behavior (e.g., Cars equipped with seat belts and child safety seats make it easier for people to use these life-saving devices.)
- Provide safer, more accessible environments (e.g., Protective landscaping, changes in traffic flow, and speed bumps are ways to make playgrounds safer for children.)

Health engineering CANNOT accomplish all objectives:

- Cannot ensure that the population will accept engineering changes (e.g., Staff may see security doors, closed-circuit cameras, and identification cards in office buildings as more of an inconvenience than a security system. Communicating with staff through company memos or newsletters can help raise awareness of security problems in and around the building and increase staff acceptance of security devices.)

Other points about health engineering should be considered:

- Engineering strategies do not necessarily require action on the part of the subpopulation groups targeted for intervention.
- Engineering changes in the physical environment are most effective when combined with communication and regulatory strategies.