Digital imaging and tomographic image acquisition of the ocular fundus offer several ways to improve access to care and evaluate early diagnosis of disease. Nonmydriatic digital imaging systems have simplified the process of capturing images of the retina and optic nerve early and allow for management of these systems outside of the realm of an eye clinic. Remote evaluation of images allows clinicians to overcome geographic barriers to care. Emerging technologies using computer and telemedicine technology may improve our ability to diagnose disorders of the ocular fundus.

We demonstrated the clinical applicability of a number of FDA approved nonmydriatic imaging systems of varying reso-
nation as well as laser scanning confocal and related devices to im-
prove our ability to diagnose and treat retinal and optic nerve disorders. In some instances digital imaging modalities can sup-
plant invasive testing, thereby reducing the risk of adverse out-
comes. Nonmydriatic digital retinal imaging alone or augmented
with confocal laser systems may emerge as the new standard for
diagnosis and treatment of retinal and optic nerve disease. Limi-
tations with respect to cost, availability, safety and reproducibility re-
quire further evaluation before these systems become universally applicable in a clinical setting.

P17 COMPUTER NETWORK FOR HEALTH CARE
ORGANIZATIONS IN LOW-RESOURCE ENVIRONMENTS
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Health care organizations in low-resource environments such as
in countries with developing economies, suffer from inadequate medical
facilities, a shortage of health care professionals and equipment,
as well as limited or no access to health care infor-
mation. Information technologies and the Internet may offer a
solution to improving the delivery of health care services. In this
project, an organizational computer network is developed for
health care organizations in low-resource environments. The
network consists of a central server, wireless access points, a dial-
up connection to an Internet Service Provider, and features the
use of open-source software applications. The wireless access
points enable mobile devices such as personal digital assistants
(PDAs) and wireless portable computers to disseminate adminis-
terative and health care information, and acquire reference re-
quirements and decision support tools. The poster session presents
the network that has been developed. The use of open source
software, such as OpenEMR for electronic medical records, and
CommunCare (a web-based email server), is also shown. Ex-
amples of access to the National Library of Medicine (NLM) and
other knowledge sources are shown. Challenges to developing the
network are discussed.

P18 DETERMINING SPECIFICATIONS FOR PERSONAL-
LEVEL RAPIDLY DEPLOYABLE TELEHEALTH UNITS
RUTTI FOR EMERGENCY ASSESSMENT
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The experience with SARS and other highly contagious infec-
tious disease agents highlights the potential risk to the popula-
tion, emergency responders, and hospitals when patients in-
fected with these agents have the opportunity to reexpose the