In Africa, many patients blinded by cataract will never have access to an ophthalmologist. Eye nurses and ophthalmic assistants who have been trained to perform intracapsular cataract extraction safely are sent to work in district hospitals under the supervision of a visiting ophthalmologist; this has proved successful in East Africa. In India, where one and a half million cataract operations are performed each year, the burden of 5 million people blind from cataract could be reduced if the 7500 trained ophthalmologists could all be diverted to operating on cataracts.

Equipment and supplies account for up to 80% of the cost of surgery. Such costs can be reduced by appropriate technologies such as the local preparation of eye drops,10 pooled purchasing of standard equipment, and low cost, local production of eye sutures, aphakic spectacles, and intraocular lenses. The World Bank recognises cataract surgery and the distribution of vitamin A capsules as being among the most cost effective interventions in medicine today.1

The cost of cataract surgery and the distance that patients must travel for surgery are not the only barriers to access: fear and lack of awareness may also be important. A survey in east Baltimore, in the United States, found that a fifth of patients with severe visual impairment had unoperated cataract.12 Similar rates have been found in London.13 In Africa and Asia a fatalistic belief that poor sight is an inevitable consequence of old age is common. In India only between a third and a fifth of people blind from cataract accept the offer of free surgery.14 In Africa fewer than 5% of those who need cataract surgery receive it.15 There are cultural and communication barriers that need to be overcome. The patient whose vision has been successfully restored by operation is the best advertisement and advocate for promoting eye surgical services.¹⁴

The ophthalmological community believes that the case for the prevention of blindness is justified on economic and, more importantly, humanitarian grounds. At present, this is poorly appreciated by many ministries of health in the developing world, where preventing blindness has a low priority, competing with major health issues such as malaria, tuberculosis, and AIDS. For most people, however, blindness is one of the most feared disabilities of life. Success in preventing blindness will depend on well researched and reasoned arguments presented to politicians and policy makers, reinforced by a groundswell of opinion from their constituents that everyone has the right to sight, even those at "the end of the track."

> ANDREW R POTTER Ophthalmologist

Centre Hospitalier Départemental, BP 49, Abomey, Republic of Benin, West Africa

- 1 Foster A, Johnson GJ. Blindness in the developing world. Br J Ophthalmol 1993;77:398-9.
- World Health Organisation. Guidelines for programmes for prevention of blindness. Geneva: WHO, 1979:16.
- Foster A. Worldwide blindness, increasing but avoidable. Seminars in Ophthalmology 1993;8:166-70.
- Vol 5. Philadelphia: Lippincott, 1991:1-7.

 ohnson GJ, Foster A. Training in community ophthalmology. Ophthalmology International
- 1990;14:221-6.
- West KP, Pokhrel RP, Katz J, Le Clerq S, Khatry SK, Tielsch JM, et al. Efficacy of vitamin A
- in reducing pre-school child mortality in Nepal. Lancet 1991;338:67-70.
 World Health Organisation. Conjunctivitis of the newborn. Geneva: WHO, 1986.
 Taylor HP, West SK, Mmbaga BBO, Katala SJ, Turner V, Lynch M, et al. Hygiene factors
- and increased risk of trachoma in central Tanzania. Arch Ophthalmol 1989;107:1821-5.

 9 Abiose A, Jones BR, Cousens SN, Murdoch I, Cassels Brown A, Babaloia OE, et al. Reduction
- in incidence of optic nerve disease with annual ivermectin to control onchocerciasis. Lancet 1993;341:130-4.
- 10 World Health Organisation. The local small scale preparation of eye drops. Geneva: WHO, 1990. (WHO/PBL/90.20.)
- 11 World Bank. Investing in health. World development report 1993. New York: Oxford University Press, 1994.
- 12 Tielsch JM, Sommer A, Witt K, Katz J, Royall RM. Blindness and visual impairment in an American urban population. Arch Ophthalmol 1990;108:286-90.

 13 Wormald RPL, Wright LA, Courtney P, Beaumont B, Haines AP. Visual problems in the
- elderly population and implications for services. BM7 1992;304:1226-9
- 14 Venkataswamy PG, Billiant G, Social and economic barriers to catract surgery in rural south India: a preliminary report. Visual Impairment and Blindness 1981:405-8.
- 15 Foster A. Who will operate on Africa's 3 million curably blind people? Lancet 1991;337: 1267-9.

Acronymophilia

The exponential growth of the use of acronyms should be resisted

Eponyms such as Barlow, Carvallo, Master, and Wolff-Parkinson-White were until recently part of the sport of ward rounds. Times have changed. Now acronyms are in fashion. GUSTO, GISSI, ISIS, MRFIT, and TIMI are heard in hospital corridors and convention halls everywhere.

In cardiology acronyms for research trials have grown almost exponentially. In 1992 I compiled a list of acronyms of 244 major cardiological trials. An updated version two years later saw the total nearly quadrupled to over 900.2 As acronyms continue to be born almost every day they need to be made easily understandable by, and readily accessible to, clinicians, investigators, and editors of medical journals while their currency is at a peak.

Acronyms are useful because they simplify, facilitate, and accelerate communication. They have become the shorthand of medicine. Physicians, especially cardiologists, like to use or invent these medical timesavers-and are good at the task.

Acronyms of cardiological studies include many anatomical terms such as ARMS, ATLAS, BRAINS, CARDIA, CARDIAC, CAVA, EARS, FACET, HEART,

INTIMA, MAST, PROSTATE, RADIUS, and RALES.* Other acronyms show that their inventors must have food on their mind—APRICOT, BIG-MAC, DISH, GUSTO, MOCHA, SALAD, SALT, and TOAST. Still others represent places-MIAMI, NEVADA, PARIS, SIAM, THAMES, and TIBET. Some have a romantic touch-CASANOVA, M-HEART, and KISS—or are common women's names—ELSA, ERICA, EVA, GRACE, MON-ICA, NORA, PAMELA, PHYLLIS, and RITA. Finally, acronyms beget acronyms; there are beginning to be acronyms within acronyms—AIMS, AMPI, APSIM, ARMS, DPPS, LART, NHEFS, TAPS, and THIS.

Yet with this proliferation the rules should remain the same. When mentioned or used for the first time in a publication all acronyms must be fully explained to avoid confusion, avert misinterpretation, eliminate guesswork, and prevent aggravation.6 Specialists often take for granted that certain trade terms are so evident or self explanatory that they do not bother to define them. Not all readers of

^{*}Explanation of all the acronyms cited in this editorial can be found in table 1 of reference 2.

medical journals, especially the specialty journals, are so knowledgeable. No wonder some readers of medical journals give up halfway through an article littered with unexplained acronyms or simply stop reading specialty journals.7

Other reasons for spelling out all acronyms at the first mention include clarity and accuracy. Abbreviations or acronyms may mean different things to different people.8 For example, RISK may stand for Regional Studie av Instabil Kranskärlssjukdom or Risk Intervention SKills study; these are different trials. Many other examples of duplication exist, including AIRE, BEST, CASIS, CAT, CATS, CRAFT, ELSA, EPIC, HERS, HHS, HIS, HIT, HOPE, IMPACT, KFC, LAVA, LIT, MIDAS, NHS, OURS, PACE, PASE, RAPID, SHAPE, SMART, SMILE, SNAP, STEP, SWORD, TAM, TAPS, and TIPE. A few acronyms stand for three different trials-START, TOPS, and PACT (which has yet another meaning for British general practitioners—that is, Prescribing Analysis and Cost daTa). After my latest updating of the acronyms of clinical trials² a second trial appeared with the acronym COMMIT (COMprehensive Multidisciplinary Interventional Trial for regression of coronary artery disease), a third trial appeared with the acronym HIS (Hungarian Isradipine Study), and a fourth trial appeared with the acronym PACT (Plasminogen Activator angioplasty Compatibility Trial). One acronym, CHS, is shared by six trials. If cardiologists cannot avoid inventing new acronyms, they should at least consult the literature to avoid using an acronym that has been used before.

Editors have to accept that acronyms are here to stay. But they should enforce the rule of the International

Committee of Medical Journal Editors: the full term for which an acronym stands should precede its first use in the text. Editors should discourage the use of abbreviations and acronyms as a general principle. An article littered with abbreviations and acronyms looks arcane and will turn readers away; to the uninitiated it is as hard to read as alphabet soup. Abbreviations or acronyms should be restricted to the familiar ones that are generally understood and do not need explanations, such as ECG, DNA, and WHO. 10 Apart from these, the only phrases that should be abbreviated are those that are cumbersome and repeated frequently throughout an article and that, if spelt out each time, would make the text much longer. Whenever possible this practice should be restricted to one or two abbreviations or acronyms per article. Someone once suggested asking contributors to list alphabetically all acronyms in their articles, either at the end of their articles or at the foot of the first page of each article. To me, to provide a glossary of acronyms with each article would only add fuel to the fire.

TSUNG O CHENG Professor of Medicine

The George Washington University School of Medicine and Health Sciences, Washington DC, USA

- Cheng TO. Acronyms of major cardiologic trials. Am J Cardiol 1992; 70:1512-14. Cheng TO. Acronyms of clinical trials in cardiology 1994. Am J Cardiol 1994;74:79-94. Cheng TO. Acronyms must be explained. BMJ 1993;307:799.
- Cheng TO. What's in an acronym? Am J Cardiol 1994;73:932.
 Cheng TO. Acronyms of clinical trials in cardiology. Eur Heart J 1993;14:1725.
- Cheng TO. Acronym aggravation. Br Heart 7 1994;71:107-9
- Cheng TO. Use of unexplained acronyms in specialty journals. Int J Cardiol 1994;46:185-8.
- Cheng TO. Abbreviations and acronyms. Can Med Assoc J 1989;141:661-2. Cheng TO. The use of qualitative research in the development of the "Heartwise" program for general practitioners. Med 7 Aust 1993;159:432.
- 10 Cheng TO. Proper use of an acronym in a publication. Press Med 1994;23:142.

The MONICA project comes of age

Monitoring coronary heart disease worldwide

Coronary heart disease accounts for an estimated five million deaths a year worldwide. Not only is it the leading cause of death in Western industrialised countries; it is an increasingly important problem in developing countries.¹ The potential for prevention has long been recognised because of the widespread geographical differences in the incidence of the disease and the dramatic improvements in mortality that have occurred in many countries since the late 1960s.² Still to be resolved are the reasons for the decline in mortality from both coronary heart disease and stroke in many countries and the continuing increase in countries of eastern and central Europe.

In the late 1970s it was realised that more data were needed to explain why death rates were changing than were provided in routine death certificates.3 Validated data from death certificates and complementary data on nonfatal myocardial infarctions, stroke, acute coronary care, and standard risk factors were essential. On the basis of the experience gained from the registers of ischaemic heart disease and stroke of the 1970s,4 the MONICA project was conceived in the early 1980s to MONItor the trends in and determinants of cardiovascular diseases. It was set up by the CArdiovascular diseases unit of the World Health Organisation and a multitude of national research groups.5

The MONICA project has become the largest study of heart disease ever undertaken. The size of the study is staggering: over seven million people aged 35-64 investigated by 38 research teams in 21 countries in four continents over 10 years. One limitation of the project is that most cardiovascular events occur in people aged 65 and over, who are not part of the core MONICA project: only seven populations register coronary events and strokes up to the age of 74.6 Nevertheless, given that the prime purpose of the MONICA project is to detect and explain changes in incidence and case fatality, this disadvantage is partly offset by the greater diagnostic accuracy in younger age groups and the likelihood that changes in incidence, whether upwards or downwards, will appear first in younger people. Even within this age range, maintaining adherence to standard criteria and collecting high quality core data are monumental tasks. It is not an exercise that gives quick answers.

A report published recently provides comparative information on over 75 000 heart attacks occurring in the three years 1985-7.7 For the first time on this scale validated data confirm the enormous variation in morbidity caused by heart disease among countries: a 12-fold difference in men, with North Karelia having the highest and Beijing the lowest rates, and a nine-fold difference in women, with Glasgow and Belfast having the highest rates and Beijing and Spain the lowest.

The lethal nature of myocardial infarction has also been