“Official statistics” is a label usually applied to any data collection or compilation, with or without accompanying qualifications, analysis, interpretation or description, which has been produced by an agency of government or others acting directly or on behalf of government. Indeed, the term “statistic” originally meant state-related, and came into use in the 18th century with the practice of collecting large data sets for use by the state. In that context, the title of this book might be considered misleadingly broad; it is not a guide to collections of health data undertaken by governments or international organizations which collect such data from governments. It is, rather, a guide to the official health statistics produced and used inside the United Kingdom. This limitation in scope is not immediately apparent, although a paragraph on the back cover does reveal that it is about England, Wales, Scotland, and Northern Ireland. So, seekers of a guide to official health statistics and their sources in the broader sense will not find much assistance here.

However, this book provides a valuable and in-depth overview of the situation regarding official health statistics in the United Kingdom. The editors’ inclusion of topics under the rubric of health statistics is satisfyingly broad, ranging from traditional subjects such as basic vital statistics and hospital morbidity to issues of health care and population morbidity, including occupational illness, disability, and environmental pollution effects. They have included coverage of statistics dealing with a variety of measures such as social class, ethnicity, poverty, housing, diet, unemployment, and social services as correlates of health. In fact, the range of data is sufficiently broad to make this guide a very useful tool for the potential health data user, especially since the sources of these statistics are spread widely amongst various ministries and departments of the government.

That this is “an unofficial guide” is not surprising since it is unlikely that any single focal point within government would have the awareness, expertise or mandate to pull all of this information together. Instead, the editors have assembled a group of authors from academia, government and the private sector, each with special knowledge about their assigned topic.

A publication written by a large number of unrelated authors might suffer from uneven treatment of topics, but in this case the contributors were each asked to answer four questions about their subject areas: what data are collected? How are they collected? Where they are published? What are their strengths and limitations? This minimizes the unevenness of the book’s chapters, though the last question was interpreted in different ways. Some authors focused on the weakness of the data set or its inability to respond to important questions, while others dealt more with the quality and completeness of the data.

The guide lists the main publications in which the data appear, and provides contact addresses and websites from which further information can be obtained. These sources alone might save a seeker of health information much time and effort.

The intended readers of this publication are postgraduate research students in epidemiology, social policy and medical statistics; undergraduates studying health care, health policy, sociology and social work; and professionals involved in management and policy-making in health and social services. This publication provides them with valuable information on the availability of official statistics for planning and evaluating health programmes in the UK.

Of course, the availability of data, even high quality data, is no guarantee that they will be correctly applied to the questions at hand, or that appropriate conclusions will be drawn. The user of statistical data needs to understand not only the “how” and “why” of those data but their biases and weaknesses. This guide aims to assist in that respect. The editors and contributors have taken steps both to increase awareness of the existence of health-related data and to improve their appropriate use. An underlying theme throughout the book is “caveat emptor”: it is the buyer’s responsibility to check the quality and suitability of the goods.

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Biomarkers in cancer chemoprevention


Clinical trials to evaluate chemopreventive agents usually require large study populations and long-term commitment of resources; this is because cancer is an infrequent event, and because clinically overt disease may take many years to develop. Biomarkers are cellular, biochemical, molecular, or genetic alterations measurable in biological media. They may be used to identify individuals who are at increased risk for cancer, resulting either from exposure to exogenous or endogenous carcinogens or from certain genetic susceptibilities, thus enabling chemoprevention studies to be carried out in smaller high-risk populations and still have adequate statistical power to detect intervention effects. In addition, because cancer can arise through multiple pathways that may proceed in parallel at different rates in various types of cells, identifying and characterizing the cellular, biochemical, molecular, and genetic events involved in these pathways is critically important to the rational evolution of effective chemoprevention strategies. The development of valid intermediate-effect biomarkers that are part of the cancer pathways and causally related to cancer, and could thus serve as surrogate endpoints for clinical disease, would make it possible to carry out chemoprevention trials in less time than is currently feasible. The potentially important role of biomarkers in chemoprevention research is well recognized by the scientific community.

The editors of this book have compiled a list of chapters based on an international workshop — Use of Biomarkers in Chemoprevention of Cancer — held in Heidelberg, Germany, in February 2000, to assess the current state of knowledge regarding biomarkers indicative of either exposure to carcinogens or individual susceptibility and intermediate-effect biomarkers predictive of overt clinical cancer, relevant to their use in cancer chemoprevention. The text covers topics ranging from basic principles of biomarkers to epidemiological criteria for surrogate endpoints to application...
of biomarkers in chemoprevention. In
the first chapter, the book presents
the consensus report of the workshop,
which clearly defines exposure biomar-
kers, intermediate-effect biomarkers,
and susceptibility markers in the context
of chemoprevention, discusses appropri-
ate examples and issues, and highlights
the workshop recommendations. This
chapter, along with introductory chapters
on the utility of biomarkers as surrogate
or intermediate end-points for monitoring
the efficacy of chemoprevention agents
and on the contribution of epidemiology
to the selection and validation of biomar-
kers (specifically, DNA adducts) for
chemoprevention, nicely lays the ground-
work for readers who may need clarifica-
tion regarding the basic principles
important to this research area. For
example, Kensler and colleagues have
meticulously set forth experimental and
statistical criteria relevant to useful bio-
markers, including the concepts of reli-
bility, precision, accuracy, and validity.
Also, they have provided a classification
scheme that relates the degree of surrogacy
of a biomarker — that is, the degree to
which the effect of an intervention on
disease is reflected in the modification
of the biomarker — to its usefulness in
preventive interventions. The remainder
of the book is thoughtfully organized
according to major cancer sites — skin,
colorectum, breast, prostate, liver, and
upper aerodigestive tract — with indivi-
dual chapters focusing on biomarkers
of exposure, intermediate effect, and
susceptibility for cancers at each of these
sites. Its contents reflect the continually
increasing research emphasis on genetic
susceptibility and address the contribu-
tions of both high-penetration susceptibil-
ity genes associated with familial cancer
syndromes (e.g. APC, MMR genes,
BRCA1, BRCA2) and low-penetration
susceptibility genes, such as those involved
in the oxidative metabolism and conjuga-
tion of carcinogens (e.g. CYP, GSTM1,
NAT2). A number of the chapters include
informative figures and tables that are
valuable additions and enhance the read-
ability of the text, and all of the chapters
are well referenced, which is convenient
for readers who wish to examine any of
the topics further.
Several contributors throughout the
book have described and used a variety
of biomarkers in chemoprevention trials
and proposed them as potential surrogate
dependent markers for cancer. Realistically,
however, relatively few biomarkers are likely
to achieve this status, because of the
complex mechanisms associated with
carcinogenesis and the limited capability
of a single biomarker to reflect the
collective impact of multiple chemo-
preventive effects on disease outcome. It
is likely that future studies will employ
a panel of biomarkers as the surrogate
end-point, an approach that will require
additional biological studies and insights.

We acknowledge that research on
biomarkers is moving forward rapidly and,
thus, when a book such as this is published,
the information presented might no longer
be on the “cutting edge”. Nevertheless,
led by the outstanding editorial committee
and the contribution authors, some of
who are pioneers in chemoprevention
research, this book should serve as a useful
resource for many scientists, particularly
those who may not be actively engaged
in chemoprevention research, but who
wish either to gain basic information about
biomarkers in chemoprevention or to keep
up-to-date regarding relatively recent
developments in this promising area
of research. Further, because this book
captures the essence of the international
workshop upon which it is based, it will
help to document the evolution of cancer
chemoprevention research and, from that
perspective, can be viewed as a valuable
addition to previously published texts.

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The professor and the
madman — a tale of murder,
insanity and the making of
the Oxford English Dictionary

By Simon Winchester. Published in 1999

This account of a strange element in the
making of the Oxford English Dictionary
(OED) is not scientific or recent (first
published in 1998), but is worthy of
a corner in the Bulletin’s rare Books &
Electronic Media section. It offers several
illuminating perspectives on mental health,
care, the imperialistic pretensions of the
English language, and manic commitment
to a big project.

The professor is Sir James Murray,
editor of the OED from 1879 to 1915,
36 years during which he brought out
several volumes of it. The madman is
William Minor, a paranoid schizophrenic
American ex-army doctor. During his
38 years as an inmate of the Asylum for
Criminal Lunatics in Broadmore, England,
he contributed many thousands of quota-
tions to the Dictionary. He had been
sentenced to this asylum for shooting
a man dead in London, mistakenly taking
for one of his Irish persecutors.

A possible contributing factor to
Minor’s madness was trauma and guilt
at having obeyed orders to brand an Irish
deserter with the letter C (for coward)
on his cheek, during the American Civil
War. At night, vengeful demons tormented
Minor in unspeakable ways, but for
much of the time during the day he was
mild, intelligent and scholarly.

As he came from a wealthy family
and had an army pension to live on, he
could afford to turn one of his two large
cells into a library, with teak shelving
from floor to ceiling, and collect rare books. The
OED is built on the system of providing
quotations to illustrate the changing
meanings of a given word, starting with its
first known occurrence in writing, and
proceeding with at least one quotation
per century. Volunteers were recruited
to read through books looking out for
catchwords, and copying out the sentences
in which they occurred, providing full
bibliographic details for each sentence.
Minor turned out to be one of the most
assiduous and talented of these volunteers,
often sending in dozens of impeccably
written out and entirely apposite quota-
tions a day.

Murray, himself manic about the
project and with an obsessive craving for
linguistic knowledge in general, appre-
ciated Minor’s excellent work and used
to enjoy visiting him at Broadmoor and
having good long chats about philology
with him.

There is not a great deal more to
this story, and Simon Winchester is hard
pressed to spin it out for 240 pages (or
a 7½ audio tape), picking cherries from
desultory research on mental health,
American history, nineteenth century
England and the history of dictionaries,
supplementing them with lush or lurid
imaginations of his own and quaint extracts
from the OED (not a bad recipe for a
bestseller, come to think of it). But it is
a tale worth lingering over. It reflects
in an intriguing way on how friendship,
work and an intellectual project can
make life worth living in the most
improbable circumstances.

Desmond Avery, Bulletin