

Faculty of Education
Faculty of Education - Papers

University of Wollongong

Year 2002

”Measure your belly”: New Zealand
children’s constructions of health and
fitness

L. Burrows* J. Wright†
J. Jungersen-Smith‡

*University of Otago, New Zealand

†University of Wollongong, jwright@uow.edu.au

‡University of Otago, New Zealand

This article was originally published as Burrows, L, Wright, J and Jungersen-Smith, J, “Measure your belly”: New Zealand children’s constructions of health and fitness, *Journal of Teaching in Physical Education*, 22(1), 2002, 39-48. Original journal available <[a href="http://www.humankinetics.com/JTPE/journalAbout.cfm"](http://www.humankinetics.com/JTPE/journalAbout.cfm)>here.

This paper is posted at Research Online.

<http://ro.uow.edu.au/edupapers/11>

1
2
3
4
5
6 **“Measure your belly” New Zealand children’s constructions of health and fitness**
7
8
9
10
11
12

13 Lisette Burrows
14 School of Physical Education
15 University of Otago
16 PO Box 56
17 Dunedin
18 NEW ZEALAND
19 Email: lburrows@pooka.otago.ac.nz
20 Phone: 64 3 479-8389 (work)
21 Fax: 64 3 479-8309
22
23

24 Jan Wright
25 Faculty of Education
26 University of Wollongong
27 Wollongong, NSW, 2515
28 AUSTRALIA
29 Email: jan_wright@uow.edu.au
30 Phone: 61-2-42213664
31 Fax: 61-2-422132892
32
33

34 Justine Jungersen-Smith
35 University of Otago
36 PO Box 56
37 Dunedin
38 NEW ZEALAND
39
40
41
42

43 Paper resubmitted to *JTPE*, October, 2001
44 **Please send all correspondence to Jan Wright**

1 **Abstract**

2

3 The expansion of health as a concept, repeated expressions of nation-wide concerns about
4 young people's health and the accompanying information explosion about health and
5 fitness have worked together to support versions of physical education that explicitly
6 address health issues. The conflation of health with physical education is not however
7 unproblematic. In this paper we explore some of the consequences of the relationship
8 between health, fitness and physical activity through an examination of the students'
9 responses to questions relating to health and fitness in the New Zealand National
10 Education Monitoring Project. We demonstrate that the children responding to the NEMP
11 tasks were very familiar with the relationship between physical activity, fitness and
12 health. While on one hand this seems to point to the efficacy of physical and health
13 education programs, we also suggest that the ways that these children seem to have
14 accepted this relationship unproblematically and with a great deal of certainty does not
15 necessarily contribute to their health and well-being but rather suggests an acceptance of
16 discourses which are associated with guilt, the self-monitoring of the body and which
17 seem to deny the pleasure which can be associated with physical activity.

1

2 **“Measure your belly”: New Zealand children’s constructions of health and fitness**

3

4

Introduction

5

6 In contemporary western societies, popular media, scholarly researchers and professional
7 agencies offer a range of ‘expert’ knowledges regarding health and fitness. A shift from
8 an orthodox view of health as ‘absence of disease’ to a broader concept that includes
9 social, emotional, intellectual and spiritual constituents of a person’s ‘well-being’ has
10 widened the remit of health so that psychologists, sociologists, doctors, exercise
11 specialists, fitness trainers and nutrition experts all have investments in ‘helping’ people
12 to reach their health objectives. As Petersen (1996) suggests, “the promotion of health has
13 become one of the predominant concerns of our age” (p.44).

14 In New Zealand, separate syllabi for health (Department of Education, 1985) and
15 physical education (Department of Education, 1987) have until recently been taught by
16 two distinctly different groups of teachers. In 1999 a new curriculum document was
17 released, a document that incorporated these two traditionally distinct subject areas into a
18 single syllabus. Writers of the *Health and Physical Education in the New Zealand*
19 *Curriculum* document were urged to incorporate a broader, more holistic
20 conceptualization of health and construct a syllabus that would address government and
21 public concerns around ‘youth at risk’ (Culpan, 1996/1997; Tasker, 1996/97).

22 For schools in New Zealand, the expansion of health as a concept, repeated
23 expressions of nation-wide concerns about young people’s health (Ministry of Education,
24 1998; Public Health Commission, 1994; Tasker, 1996/97; Te Puni Kokiri, 1993) and the

1 accompanying information explosion about health and fitness have worked together to
2 produce a climate ripe for the flourishing of health education and a version of physical
3 education that explicitly addresses health issues in schools. Schools are urged to develop
4 programmes to promote attitudes and behaviors leading to a 'healthy lifestyle'. In doing
5 so, there is little consideration of the meanings which students already make of health and
6 the implications of these for their lives. As Tinning and Kirk (1991) point out, the
7 conflation of physical education with health is not an unproblematic notion. Indeed, the
8 harnessing of physical education to health agendas has frequently resulted in programs
9 that privilege fitness through exercise as the core business of physical education in
10 schools. Medical doctors, psychologists, biologists, physical educators, counselors and
11 even movie stars are discussing health issues, yet children's ideas about health rarely
12 enter the public arena. It seems imperative that those interested in preparing teachers,
13 studying/teaching health or physical education in universities, and working with children
14 in school contexts understand what sense young people are making of 'health' and what
15 particular orientations to health and fitness they bring into school programs.

16 This paper explores the meanings that a group of year 4 (8-9 years) and year 8
17 (12-13 years) New Zealand students construct about health and fitness. We use data
18 derived from a large national project, The National Education Monitoring Project
19 (NEMP). This project was designed to assess the achievement of 2880 students in years 4
20 and 8 of their schooling across all subject areas (Crooks & Flockton, 1999). We focus on
21 responses to five stimuli tasks appearing in the Health and Physical Education component
22 of the broader project. The five tasks were selected because they directly explored
23 students' beliefs, attitudes and behaviors in relation to 'health' and 'fitness'.

1 In this paper, then, we ask what discourses (sets of meanings/knowledge and
2 values) are evident in the ways in which the students respond to the NEMP tasks. What
3 can be productively said about these discourses in terms of their consequences for the
4 ways in which young people think about health and their relation to it? How do we make
5 sense of the students' responses in the context of what others have written about the
6 discursive constructions of health and fitness and their consequences for young women
7 and men? In answering these questions we are concerned not only with documenting the
8 discursive resources young people draw on, but with speculating on their effect.

9

10 **The Cultural Resources for Making Meaning about Health and Fitness**

11

12 As Foucault (1977) suggests, the discourses available for people to draw on both enable
13 and constrain what can possibly be known and practiced. Analyses of health promotion
14 discourses and practices in contemporary western society point to the power of certain
15 constructions of health over others. Deborah Lupton (1995) and others (Bunton,
16 Nettleton et al., 1995; Naidoo, 1994; Petersen, 1996), for instance, point to the
17 importance of “risk management” in contemporary health promotion language. Health
18 risks identified by epidemiological and biomedical research become the primary source
19 of valid knowledge in shaping health (and health education) policy and practice. Within
20 the context of health, experts purport to manage the uncertainty of illness and death
21 through the identification of risk factors – that is, factors which are deemed to be largely
22 avoidable through the actions of individuals. One of the major “risk factors” currently
23 receiving considerable political and media attention is obesity, construed popularly and in

1 the research literature as the ‘obesity epidemic’ (see Flegal, 1999; Swinburn, 1997). The
2 failure of individuals to participate in adequate amounts and types of physical activity is
3 uncritically linked with an increase in obesity despite challenges to the veracity of the
4 two assumptions which underpin this relationship. These assumptions are: one, that there
5 has been a decline in physical activity which can be associated with an increase in
6 obesity and two, that obesity and overweight can be causally linked with population
7 health – rather than specific illnesses (see Atrens, 2000; ##Jutel forthcoming 2001; Gard
8 & Wright, forthcoming 2001 for further discussion of this issue).

9 It is clear that a popular discourse which constructs a relationship between
10 exercise, weight and health as an individual responsibility is widely available to New
11 Zealanders, including the many children who watch television. This discourse is
12 complemented by slightly different but very similar messages which point to the
13 importance of body shape and appearance in contemporary society, particularly for
14 middle class women and men. As Featherstone (1991) and Bordo (1993) point out the
15 body has become a major marker of identity and worth in a consumer society. A slim
16 toned body has come to signify self-regulation and worth, the sign of moral standing.
17 Such a relationship provides a productive environment for the promotion of products
18 which promise the means to achieve such a body. In addition the growth of the fitness
19 industry, in the form of commercial gyms and personal trainers, attest to the power of the
20 link between exercise, fitness and a slim worked male or female body. At the time of the
21 NEMP survey the Jenny Craig Weight Loss Program was receiving considerable
22 advertising coverage, as was an advertisement for a machine called the “Torsotrack”. The
23 latter infomercial promotes the machine as targeting those “hard to reach muscles” and as

1 particularly necessary for women with children and little time on their hands. It presents
2 an image of the body as comprised of flabby, floppy, soft parts which each need to be
3 “worked”.

4 In the context of education, the messages around health are broader. Strategies
5 such as the Kiwidex program Jump Rope for Heart and the Physical Education New
6 Zealand “Exercise Lifestyle Awards” promote exercise as contributing to health and
7 fitness. On the other hand, the 1985 Syllabus, the Life Education Program and the new
8 1999 Health and Physical Education syllabus promote a much broader notion of health
9 which encompasses emotional and social dimensions. In addition, the Life Education
10 Program, a community based group which has an extensive involvement in the provision
11 of health education in primary schools in NZ and Australia, has as one of its primary
12 goals the prevention of substance abuse, environmental abuse and social abuse.

13

14 **The NEMP project and Data Collection**

15

16 In 1993, New Zealand’s National Education Monitoring Project (NEMP) was set up. The
17 project was charged with the task of assessing and reporting on the achievement of New
18 Zealand primary school children in all areas of the school curriculum over four-yearly
19 cycles. The purpose of the national monitoring was two-fold. Firstly, “to meet public
20 accountability and information requirements by identifying and reporting patterns and
21 trends in educational performance”, and secondly, “to provide high quality, detailed
22 information which policy makers, curriculum planners and educators can use to debate
23 and review educational practices and resourcing” (Crooks & Flockton, 1999, p.6). In

1 1998, children's skills, knowledge, perceptions and attitudes relating to health and
2 physical education were assessed at two class levels, year 4 and year 8, through a random
3 sample of children throughout New Zealand. The assessment tasks addressed four
4 components of the health and physical education curriculum: Personal health and
5 physical development; Relationships with other people; Movement skills; and Healthy
6 communities and environments.

7 The *Personal health and physical development* component of this national
8 assessment program required students to write and speak about their understandings of
9 health and fitness. Responses to a range of tasks were collected via four approaches: one-
10 to-one interviews; stations (four students working independently, moving around a series
11 of stations where tasks had been set up); team and independent tasks (students working
12 collaboratively on a task then working individually on paper-and-pencil tasks) and; open
13 space activities (students attempting a series of physical skill tasks).

14 On the basis of a general analysis of the data, the project directors reported broad
15 trends in students' skills, knowledge, perceptions and attitudes relating to health and
16 physical education (see Crooks & Flockton, 1999). Student responses to each of the tasks
17 used in the national monitoring were then tendered out to researchers, for more detailed
18 analysis. The authors of this paper tendered for the responses to the following five tasks
19 which related specifically to health and fitness:

20

- 21 • *Being Healthy*– a one-to-one task which asks students to specify what things they
22 would need to do to be really “healthy”.

- 1 • *Healthy Person* - a team activity where four children work together to identify the
2 key components of a healthy person. In addition, children independently record their
3 ideas about what comprises a healthy person.
- 4 • *It's great to be fit* – a one-to-one task where students are required to give reasons why
5 it is “good to be fit?”
- 6 • *How fit?* – a station task which asks students to make a plan, in written and/or
7 pictorial form, showing what they could do to test their own fitness.
- 8 • *Fit for fun* - a station task that requires students to write down a plan that would help
9 a young boy get fit.

10

11 The responses to these tasks were typed into a database and analyzed for themes and
12 relationships using the NUD•IST qualitative software package. Two main phenomena
13 emerged from this analysis and these will be discussed in the remainder of the paper. The
14 first is the ways in which the students in the study generally constructed meanings about
15 health and fitness and the relationship between the two. The second and main focus of
16 this paper is the relationship that emerged from the data between fitness and appearance,
17 weight and body shape.

18

19 **Relationships between Health and Fitness Constructed in Students' Responses to the** 20 **NEMP Tasks**

21

22 Responses across each of the five health or fitness related tasks produced a remarkably
23 consistent picture of what year 4 and year 8 male and female students viewed as the

1 constituents and behaviors associated with being a healthy person and a fit person. Being
2 healthy, according to the majority of the students meant eating the right food, drinking
3 lots of water, being active and keeping oneself clean. In other words health was primarily
4 conceived as a corporeal notion. In so saying, a range of other meanings can be discerned
5 among the often extensive lists of health-enhancing behaviors and attributes listed by
6 students. For example, having a sound mental attitude, a family who loves them, getting
7 enough sleep, experiencing “joy”, living a long time and possessing a healthy self-esteem
8 were regarded as crucial components of a healthy person. Responses to the *It’s Great to*
9 *be Fit* and to the *Fit for Fun* task indicated that many students regarded most of these
10 health imperatives as integral to the concept of ‘fitness’ as well. That is, for the majority
11 of students, health and fitness were viewed as interchangeable or at least, intimately
12 related states of being.

13 One of the major differences between the groups of students who responded to the
14 five tasks was the markedly different range of knowledge resources on which the year 8
15 students drew as compared to those in year 4. This of course is not surprising. The year 8
16 students had four additional years of life experience, and of schooling. In particular, the
17 impact of the *Life Education Program* and Physical Education/Health classes on fitness
18 and fitness measurement was very apparent in their responses as compared to the year 4
19 students. For instance, the emphasis by the *Life Education Program* on self-esteem and
20 emotional well-being as fundamental to making healthy choices came through in many of
21 the responses, for instance: “friendly - healthy mind”; “think of good things not bad” and
22 “have right attitude about yourself and understanding yourself and others”. The older

1 students were also much more likely to provide detailed prescriptions of ways to develop
2 or measure fitness.

3 The year 4 students' responses to the five tasks provided insights into family
4 preoccupations with fitness and weight-related products advertised on television. For
5 instance, there were references to machines such as the "Fastburner programme like on
6 T.V." and, for many of the year 4 "scales" (or the mirror) were integral to determining
7 how fit you were. The year 4 responses often conjured up a family or parent who spent
8 (or talked about spending) time at the gym, and households where weighing oneself was a
9 frequent occupation. One year 4 student for example, in response to the *Fit for Fun* task
10 provided a detailed rehearsal of a daily diet of yogurt, fruit and carrot sticks suggesting an
11 extreme weight reduction regime he was likely to have witnessed in his home.

12 As suggested above, it was the rare student who did not mention purposive and
13 deliberate exercise as an indicator of health or as a way of developing or measuring
14 fitness. For some, this was conflated with being fit, that is, as an indicator of *A Healthy*
15 *Person* or a way of *Being Healthy*. The following responses to the *Being Healthy* task
16 have been chosen because this task allowed students to explicitly 'define' what it means
17 to be healthy. In addition, these responses are typical of the ways that students always
18 included a reference to fitness/exercise, generally, coupled with references to consuming
19 'healthy' foods.

20

21 By exercising keep fit.

22 Running or jogging - do sports.

23 Drink lots of water (mineral water)

- 1 Do not eat lots of sweet things.
- 2 (year 4 male)
- 3
- 4 Have a good diet
- 5 Exercise often.
- 6 Go to the gym.
- 7 Dont eat to much food.
- 8 Walk to work.
- 9 Do as much on your feet as you can.
- 10 Try and use your body instead of a machine
- 11 (year 8 male)
- 12
- 13 Eat healthy food.
- 14 Do good exercise.
- 15 Don't eat junk food.
- 16 Drink heaps of water and milk.
- 17 Eat vegies. Eat fruit.
- 18 Don't eat too much meat with fat on it
- 19 (year 4 female)
- 20
- 21 Don't eat fatty food - healthy instead.
- 22 Do lots of sports and exercise.
- 23 Not to smoke and drink.

1 (year 8 female)

2

3

Fatness, Fitness, Appearance and Health

4

5 Whereas responses to all five tasks elicited some references to weight as linked to health
6 and well-being, there were far fewer mentions of weight, fat, size, shape or appearance in
7 response to the health tasks than in response to the fitness tasks, *It's Great to be Fit* and
8 *How Fit?*. In other words, weight was far more commonly referred to by students as a
9 marker of fitness than of health.

10

11 *How Fit?*

12 For many of the year 4 male and female students, weighing scales or any piece of
13 apparatus (including the eyes) that could measure weight or size were viewed as crucial
14 pieces of equipment in any fitness testing regime. For example, students wrote phrases
15 like: "Loke at your alfe (look at yourself)", "weigh your self on scales", and "use scales
16 to see how fat you are". In several instances, students suggested that weight
17 measurements should be taken both prior to and after exercise, the implication being that
18 a 'work out' would facilitate weight loss and therefore improve one's fitness. For
19 example: you could go for a run and get on the scale and see if you get any more fitter
20 than before"; "mon. go for a run; tues, cheak if you have lost wight"; or

21

1 I would stand on a skaly before I went to do fitness and right down how
2 much I way. After fitness I would stand a skaly againi and see how much
3 whate I lost then I would now how fit I was.

4

5 In several cases, students directly equated their fitness with a capacity to fit into particular
6 items of clothing, for example, “I can’t fit a shots or a Pance” (shorts or pants). One of
7 the most extreme manifestations of the fitness/fatness interface was one student’s
8 “tummy diagram”. In the diagram the student drew three different sized “tummies” with
9 the smallest tummy representing the ‘fit’ person and the big tummy the ‘unfit’ person.
10 Others added instructions like “measure your belly” to their prescriptions for fitness
11 testing.

12 Weight-related responses were not the preserve of the younger students. Many
13 female and male year 8 students continued to refer to weight or size as a predictive
14 indicator of fitness and some of them constructed elaborate plans linked to a weighing
15 regimen in response to the *How Fit* task. For example, a year 8 girl suggested the
16 following: “Go on a scale, go to Jenny Craigs, see the doctor, go for a run then when you
17 get home put some light clothes on but take your shoes and socks off to see how much
18 weight you have lost”.

19

20 *It’s Great to be fit*

21 It is quite clear from the responses to this question that fitness, weight and appearance
22 were tied in intimate relation. There were more references to appearance in the sense of
23 ‘looking good’ in this task than in any of the other four tasks. Present in many of the

1 statements about appearance were direct and indirect references to weight and size. For
2 example, comments like, “it makes your tummy go smaller”, “look better – don’t get
3 overweight” and “doesn’t make you look fat”, suggest that for some students “looking
4 good” means “not being fat”. One year 4 male student claimed that “it’s great to be fit”
5 because you “don’t look ugly” while another claimed that “it’s great to be fit because
6 “you can squeeze through little gaps”. Many of the comments contained specific
7 references to being fat and the absolute necessity of avoiding that condition: “if you
8 weren’t fit you’d be all fat” and “cause otherwise you will turn out really fat”.

9 Furthermore, often within the statements about fat or weight were comments that
10 indicated students were not only linking fitness with “non-fatness” but fatness with
11 laziness. For example: “you don’t get fat and lazy”, “you don’t become a fat blob (couch
12 potato)”, “people who aren’t fit aren’t in shape, can’t do lots of things, are lazy” and
13 “better to be fit than fat or do nothing”. Poignant comments like: “so no one laughs at you
14 because you are fat”, “people won’t tease you at school if you’re a bit chubby”, “people
15 don’t criticize you for being big” and “don’t have to worry (about) people saying your
16 fat/slow” reflect a recognition either through personal experience or witnessing the
17 treatment of others of the teasing and harassment that can be part of the life of those who
18 are perceived as ‘overweight’.

19 While we assumed that young women might be more inclined to equate fitness
20 with appearance than young men, results indicated that both males and females supported
21 the notion that being fit means you will look better. There was little difference between
22 the kinds of statements about appearance made by female and male students. In addition
23 the word “thin” was used far less frequently than “fat”. The negative effects of being fat

1 were far more likely to be emphasized than being thin or slim. On one hand, this fits with
2 the widespread ‘panic’ that there is an ‘obesity epidemic’ (Wright & Gard, forthcoming
3 2001). On the other hand, it may also indicate the students’ reluctance to use terms
4 associated with anorexia and bulimia, eating disorders discussed widely in the media and
5 emphasized in contemporary health education programs.

6

7

Discussion

8

9 Taken together, health and fitness discourses provide strong instructions as to how
10 individuals should think and act in relation to their bodies. Given the currency of these
11 discourses it would be surprising if they were not found in some way in the students’
12 constructions of health. On one hand, this suggests the success of the knowledge
13 promotion concerning health and fitness; on the other, it raises issues about the
14 construction of a view of health which promotes guilt, a constant self-monitoring and the
15 possibility of life-threatening practices for both men and women.

16 The children who responded to these tasks in one sense are indicative of the
17 effectivity of the health and fitness discourses which are circulating in their society. They
18 know them well; they can reproduce these relationships for the adults who conducted the
19 tasks. But it has to be acknowledged that these were tests, even though the designers and
20 administrators of the tasks worked hard for them to seem less that way. The purpose was
21 to assess the student’s knowledge of health and fitness. In this sense they have fairly
22 successfully reproduced the dominant sets of meaning promoted both in schools and in
23 society around health and fitness. As far as one can judge from responses collected in

1 these contexts, the students seem to value exercise and good eating and see these as
2 leading to health. They *know* the relationship.

3 However, the relationship between eating particular kinds of foods and regular
4 exercise, particularly when taken-for-granted as promising good health, is not
5 unproblematic. The obverse side is the construction of guilt if one does not conform to
6 such a life – the constant guilt and self-monitoring which Atrens (2000) talks about as
7 endemic to western society; the guilt which accompanies every experience of food for
8 many people. Pleasure rarely features in the students’ responses. Many of the products
9 and practices students refer to as prohibited, for example “lollies”, “junk food”,
10 “watching TV” and “lying on the couch” are things most young people enjoy. The
11 moralistic position which suggests that someone who cannot demonstrate a slim body
12 shape is in some ways unworthy, undisciplined, lazy, “a couch potato” is embedded in the
13 dominant health and fitness discourses and some of the students’ responses are already
14 indicative of this.

15 In addition, the certainty with which most students advance their meanings for
16 health and fitness is troubling given that many of the practices they speak of are far from
17 certain. For example, the food pyramid cited by most students as the guide for good
18 eating is subject to regular revisions by nutrition experts and, as Durie (1998) suggests, is
19 culturally limiting. What counts as enough activity, or the ‘right’ kind of exercise regime
20 to achieve fitness, is also constantly shifting as new ‘discoveries’ in health and human
21 movement sciences produce new sets of prescriptions. When students are taught that if
22 they exercise correctly and eat the ‘right’ foods they *will* become healthy and/or fit, they

1 are unprepared for the uncertainty that characterizes attempts to create or maintain a
2 'healthy lifestyle'.

3 Feminist critiques of health promotion and critical analyses of health and fitness
4 messages transmitted through school-based programs would suggest that young women
5 and young men receive and enact health and fitness messages in very different fashions.
6 For example, the ways in which gender intersects with beliefs about the role of fitness in
7 the cultivation of the 'ideal' body are well documented for young women (Markula,
8 1997; Tinning, 1985; White et al, 1995). However, current masculinity research also
9 suggests that the consequences of such beliefs are problematic for boys as well as girls
10 but in different ways, given the differences in the socially constructed notions of the ideal
11 body (Gilbert & Gilbert, 1998).

12 In our study, a discursive relationship between health, body shape and weight
13 seemed to be drawn upon by both girls and boys to respond to the tasks. However as
14 suggested above this does not necessarily mean with the same effects. We would argue
15 that the requirement to demonstrate a slim body shape is still primarily an imperative for
16 women. Men are certainly not exempt from powerful messages via the media, fashion
17 and the fitness industry. The muscular toned bodies of male models and film and
18 television stars suggest an ideal of a worked body which is for young men perhaps as
19 difficult to emulate as the thin toned ideal for a young woman. For boys the dangers seem
20 to be taking steroids to increase muscle bulk, but we would still argue that the thin ideal
21 for girls requires a constant monitoring of food and body weight which few girls escape
22 no matter what their body shape, with anorexia and bulimia as the most tragic outcome.

23

1 **Conclusion**

2
3 Clearly physical activity and its relationship to health will remain central to the work of
4 physical educators. This being the case we want to make the following suggestions as a
5 means of addressing the problematic implications of this relationship, as these were
6 evidenced in the students' responses to the NEMP tasks.

7 Firstly we would suggest that we as physical educators need to examine the ways
8 in which our own practices are implicated in reproducing discourses and material
9 experiences for students which contribute to the anxieties and damaging practices
10 associated with the desire to achieve a socially desirable body shape. Secondly, we would
11 suggest that we explicitly deal with the social constructions of health and fitness and the
12 ways in which these are constituted in our teaching *about* physical activity and health.
13 Thirdly, we examine, and assist our students to examine, the ways in which bodies and
14 bodily practices are evaluated and why this might be the case. Finally we need to prompt
15 questions concerning the source of prevailing beliefs and investments about health,
16 fitness and appearance and the consequences of these for people's health and well-being.
17 It is inevitable that such questioning will produce and require us to address the
18 uncertainty of health knowledge. This is not an easy position from which to teach and
19 work, but necessary if we are to serve young people well.

20
21 **References**

22
23 Atrens, D. (2000). *The power of pleasure*. Sydney, Australia: Duffy & Snellgrove.

- 1 Bordo, S. (1993). *Unbearable weight: Feminism, western culture and the body*. Berkeley:
2 University of California Press..
- 3 Bunton, R., S. Nettleton, et al. (1995). *The sociology of health promotion: Critical*
4 *analysis of consumption, lifestyle and risk*. London: Routledge.
- 5 Burns, R. (1993). Health, fitness and female subjectivity: What is happening in school
6 health and physical education? In L. Yates (Ed.), *Feminism and education* (pp. 78-
7 92). Melbourne: La Trobe University Press.
- 8 Crooks, T., & Flockton, L. (1999). *Health & physical education: Assessment results*
9 *1998*. Dunedin: University of Otago Educational Assessment Research Unit.
- 10 Culpan, I. (1996/1997). Physical Education: Liberate it or confine it to the gymnasium?
11 *DELTA*, 48(2), 203-220.
- 12 Department of Education (1986/1987). *Health education trial unit for designated schools*.
13 Wellington: Department of Education.
- 14 Department of Education. (1985). *New Zealand health education syllabus*. Wellington:
15 Department of Education.
- 16 Department of Education. (1987). *Physical education: Syllabus for junior classes to*
17 *Form 7 with guidelines for early childhood education*. Wellington: Department of
18 Education.
- 19 Durie, M. (1998). *Whaiora: Maori health development*. Auckland: Oxford University
20 Press.
- 21 Education Review Office (1997). Students at risk: Barriers to learning. In *Education*
22 *evaluation reports*. Wellington: Education Review Office.

- 1 Featherstone, M. (1991). The body in consumer culture. In M. Featherstone, M.
2 Hepworth and B. Turner (Eds.). *The body: Social processes and cultural theory*.
3 (pp. 170-196). London: Sage.
- 4 Flegal, K. M. (1999) The obesity epidemic in children and adults: Current evidence and
5 research issues. *Medicine and Science in Sports and Exercise*, **31**, S509-S514.
- 6 Flegal, K. M.: 1999, The obesity epidemic in children and adults: Current evidence and
7 research issues”, *Medicine and Science in Sports and Exercise*, **31**, S509-S514.
- 8 Foucault, M. (1977). *Discipline and punish: The birth of the prison*. London: Penguin.
- 9 Foucault, M. (1981). *The history of sexuality: An introduction*. Hammondsworth:
10 Penguin.
- 11 Gard, M. & Wright, J. (forthcoming 2001) Managing uncertainty: obesity discourses and
12 physical education in a risk society, *Studies in Philosophy and Education*.
- 13 Giddens, A. (1991) *Modernity and self-identity in the late modern age*. Cambridge:
14 Cambridge University Press.
- 15 Jutel, A. (forthcoming 2001). “Does size really matter?: Weight and values in public
16 health. *Perspectives in biology and medicine*.
- 17 Lupton, D. (1995). *The imperative of health: Public health and the regulated body*.
18 London: Sage.
- 19 Markula, P. (1997). Are fit people healthy? Health, exercise, active living and the body in
20 fitness discourse. *Waikato Journal of Education*, **3**, 21-39.
- 21 Markula, P. (1998). Women’s health, physical fitness and ideal body: A problematic
22 relationship. *Journal of Physical Education New Zealand*, **31**(1), 9-13.

- 1 Ministry of Education. (1998). *Health and physical education in the New Zealand*
2 *curriculum: Responses to the draft*. Wellington: Ministry of Education.
- 3 Ministry of Health (1997). *Strengthening public health action. The background paper*.
4 Wellington: Public Health Group.
- 5 Naidoo, J. & Wills, J. (1994). *Health promotion: Foundations for practice*. Bailliere
6 Tindall.
- 7 Petersen, A. R. (1996). Risk and the regulated self: The discourse of health promotion as
8 politics of uncertainty. *Australia and New Zealand Journal of Sociology*, **32**(1), 44-
9 57.
- 10 Public Health Commission (1994). *Our future our health. Hauora Pakari, Koiora Roa*.
11 *The state of public health in New Zealand*. Wellington: Public Health Commission.
- 12 Ross, B. (1990). Exercise and exersense: The role of formal exercise in physical
13 education. *New Zealand Journal of Health, Physical Education and Recreation*,
14 **23**(2), 16-19.
- 15 Shilling, C. (1993). The body, class and social inequities. In J. Evans (Ed.), *Equality*,
16 *education and physical education*. London: The Falmer Press.
- 17 Swinburn, B. (1997). Obesity: prevention/management. *New Zealand Patient*
18 *Management*, 31-33.
- 19 Tasker, G. (1996/97). For whose benefit? The politics of developing a health education
20 curriculum. *DELTA*, **48**(2), 187-202.
- 21 Te Puni Kokiri (1993). *Nga Ia O Te Oranga Hinengaro Maori. Trends in Maori mental*
22 *health: A discussion document*. Wellington: Te Puni Kokiri.

- 1 Tinning, R. (1985). Physical education and the cult of slenderness: A critique. *The*
2 *ACHPER National Journal*, **10**, 7 (Autumn), 10-13.
- 3 Tinning, R., & Kirk, D. (1991). *Daily physical education: Collected papers on health*
4 *based physical education in Australia*. Geelong, Australia: Deakin University Press.
- 5 White, P., Young, K., & Gillett, J. (1995). Bodyworks as a moral imperative: Some
6 critical notes on health and fitness. *Society and Leisure*, **18**(1), 159-182.
- 7