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Short communication

Historical trends in height, weight, and body mass: Data from U.S. Major League Baseball players, 1869–1983

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ABSTRACT

We employ a unique dataset of Major League Baseball (MLB) players – a select, healthy population – to examine trends in height, weight, and body mass in birth cohorts from 1869 to 1983. Over that 115-year time period, U.S. born MLB players have gained, on average, approximately 3 in. (7.6 cm) in height and 27.0 lb (12.2 kg) in weight, which has contributed a 1.6-unit increase in the body mass index. Where comparable data are available, U.S. born MLB players are about 2.0 in. (5.1 cm) taller and 20.0 lb (9.1 kg) heavier but substantially less obese than males in the general U.S. population. But both groups exhibit similar height and weight trends; the majority of height and weight gains take place in cohorts that were born prior to World War II, followed by slower gains and occasional declines in height and weight for cohorts born in 1939 and later.

1. Introduction

Anthropometric measurements are key markers of a population's health that are especially valuable when they are observed over long spans of time (Fogel, 1993; Tanner, 1992). Historical trends in height, weight, and body mass have been documented in many studies (Damon, 1968; Dorn et al., 1997; Flegal et al., 1988; Fogel, 1993; Gregg et al., 2005; Hauspie et al., 1997; Karpinos, 1958; Komlos, 1987; Murata and Hibi, 1992; Tanner, 1987, 1992). We add to this literature by using a unique dataset for Major League Baseball (MLB) players to examine trends in height, weight, and body mass index (BMI) over the last century.

Although MLB data have some limitations, they can complement other historical data on anthropometry in the U.S. First, they provide annual information on height and weight for cohorts born between 1863 and 1983, and allow us to calculate BMI values for periods that are not readily available in other datasets. MLB players are not specifically selected for height or weight, come from both cities and rural areas in all U.S. regions, and are ethnically diverse, with large numbers of both African Americans and Latinos (Lapchick and Matthews, 1999). Finally, MLB players – who have high levels of physical training, newly gained affluence, and social status – represent a very healthy, select subpopulation (Abel and Kruger, 2005; Saint Onge et al., 2008; Waterbor et al., 1988), and their anthropometric trends may shed insight into future potential gains for the general population under certain conditions.

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