Allele Frequency based on genotype encoding

Genotype	Code	# G_1 in Genotype
$G_2 G_2$	0	0
$G_1 G_2$	1	1
$G_1 G_1$	2	2

$$p = f(G_1) = \frac{\# G_1 \text{ in the data set}}{\text{Total Number of alleles} = 2 \cdot nr\_animals}$$

$$q = 1 - p = f(G_2)$$

$$\frac{1}{2} \text{ mean } (tbl\_data \$ Genotype) = \frac{\# G_1 \text{ alleles}}{2 \cdot nr\_animals} = p$$