```
    *e = 17;
    while (gcd(*e, phi) != 1) {
        (*e)++;
    }
    *d = mod_inverse(*e, phi);
}

long rsa_encrypt(long msg, long e, long n) {
    return mod_exp(msg, e, n);
}

long rsa_decrypt(long cipher, long d, long n) {
    return mod_exp(cipher, d, n);
}

int main() {
    long e, d, n;
    rsa_generate_keys(&e, &d, &n);

    long msg = 65;
    printf("Original message: %ld\n", msg);

    long cipher = rsa_encrypt(msg, e, n);
    printf("Encrypted message: %ld\n", cipher);

    long decrypted = rsa_decrypt(cipher, d, n);
    printf("Decrypted message: %ld\n", decrypted);

    return 0;
}
```