

Labour Market implications of Thyroid Dysfunctions

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Background – Key stylised facts:

- [1] Thyroid dysfunctions are much more common in women than in men.
- [2] Hypothyroidism is the most prevalent and especially so in women where it is potentially 10 times more common than in men.
- [3] Subclinical hypothyroidism is a very commonly detected abnormality which is normally not treated
- [4] Thyroid disorders (particularly hypothyroidism) are frequently misdiagnosed as many thyroid disease symptoms can mimic other conditions; this is particularly true for women with hypothyroidism.
- [5] In women, symptoms tend to persist longer and are less effectively managed by therapy.

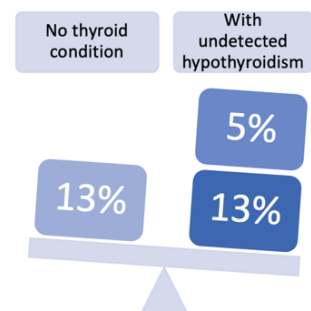
“Do thyroid diseases – and, in particular, hypothyroidism – contribute to explain female/men differences in key labour market outcomes?”

“Does diagnosis (and, hence, assumed the start of treatment) have a positive impact on such outcomes?”

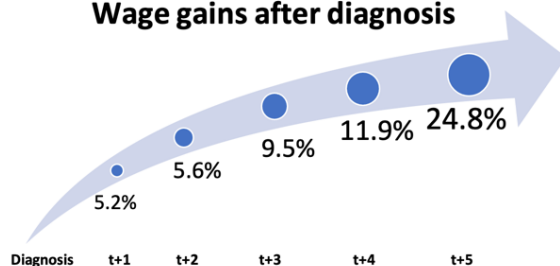
Within our sample from the UKHLS (2009-2018), the estimated wage gap between male and female individuals with no thyroid dysfunctions is around 13%.

The **gap is 5% wider** for the female individuals who suffer from **undetected hypothyroidism**.

Gender wage gap



Wage gains after diagnosis



Post-diagnosis there is gradual **improvement of wages** for **female** individuals, with wage gains progressively increasing over time, exceeding 10% four years after diagnosis.

In our analysis, we assumed that diagnosis correlates with treatment. There is evidence, however, that diagnosis of thyroid disease does not automatically lead to treatment. Crucially, due to data limitations, we cannot make a distinction between subclinical or 'borderline' cases of thyroid disease (where treatment is not prescribed) and cases where individuals receive treatment. Therefore, individuals may experience **bigger labour productivity improvements**, once treated for hypothyroidism, than what our estimates suggest.

Individuals within the sample do not change jobs, get promoted or change grades once diagnosed with thyroid issues: the estimated wage effects might be driven by **productivity gains**.

Comparison of people who receive performance-related-pay (PRP) or bonus payments with people who do not have such remuneration packages suggests that this might indeed be the case.

Diagnosis of hypothyroidism also **improves** female individuals' **employment prospects**.

Policy implications

Our findings highlight the **importance of being tested for thyroid dysfunctions** and call for a deeper understanding of the consequences of, in particular, untreated borderline and subclinical hypothyroidism.

Since hypothyroidism amplifies existing male/female wage gaps, **timely intervention** can help **redress gender disparities in the labour market**.

A petition presented to the **Scottish Parliament** (PE01463) in 2012 highlighted problems with diagnosis and treatment of thyroid disorders, and since then various debates have taken place in the Scottish Parliament. More recently (May 2021), another motion was submitted (S5M-24420), highlighting ongoing failures in the treatment of people with thyroid conditions, the majority of whom are women. This is an issue also acknowledged by the **British Thyroid Association** that has reported that patients continue to experience ill-health on standard treatment.

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