Chiesi

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Chiesi

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Latest insights on COPD and cardiovascular disease

SPEAKERS: BORJA GARCIA-COSIO, SAMI O. SIMONS, BIANCA BEGHÈ & JENNIFER QUINT.

Summary: Clinical year in review – COPD and cardiovascular disease: latest insights in epidemiology, detection and intervention.

On a scorching hot morning in Vienna, the Sunday session of ERS kick-started with a highly interesting discussion covering cardiovascular disease (CVD) in chronic obstructive pulmonary disease (COPD).

Co-occurring comorbidities in COPD

Individuals living with COPD often have several comorbidities. Prevalence of CVD in COPD is particularly high[1] and is associated with an increased risk of death[2]. For example, COPD patients with mildly reduced ejection fraction have higher all-cause mortality than non-COPD patients with reduced ejection fraction[3]. Still, underdiagnosis of cardiovascular disease is high in patients with COPD.[4]

Every exacerbation matters

The association between CVD and COPD could be a consequence of shared risk factors (environmental and/or genetic factors), shared pathophysiological pathways, the co-occurrence of both diseases, and the adverse effects of COPD contributing to CVD, states Borja Garcia-Cosio. In clinical practice, controlling COPD is crucial, as a COPD exacerbation could trigger subsequent cardiovascular events. This risk remains elevated for up to a year after the exacerbation, and it intensifies with the severity of the episode[5]. Importantly, this increased risk is present even in patients who have not previously been diagnosed with CVD[6]. As Sami Simons stated: *"Every exacerbation matters".*

If we do not look for it, we will never find it!

To address the underdiagnosis of CVD in COPD, early detection of CVD in COPD using a proactive search strategy is essential[7]. Several tools are available to determine CVD risk in the clinic[8]. For instance, CT thorax scans have been used to detect coronary artery calcification in COPD patients, which has been linked to increased dyspnoea, reduced exercise capacity, and all-cause mortality[9]. Methods such as calculating risk scores with questionnaires, blood measurements (e.g., BNP, glucose, lipids), lung function testing, and echocardiogram also provide important clinical information that can identify individuals with high CVD risk and enable timely initiation of appropriate treatment says Bianca Beghè.

Addressing non-pharmacological or pharmacological

Treatment for COPD patients at risk of CVD may involve both non-pharmacological and pharmacological interventions. Jennifer Quint emphasizes the importance of non-pharmacological strategies, such as smoking cessation and physical activity, which have proven to be critical in reducing CVD risk.

Reduction in exacerbation and hospitalization risk, along with lung function improvement and better quality of life improvements has been demonstrated for triple therapy (ICS/LABA/LAMA)[10-13], however impact on cardiovascular health and premature death still remains to be determined. Available post-hoc analysis[14-16] of clinical trials have not been powered to demonstrate impact on all-cause mortality and since these studies are heterogenous and of explanatory nature, there is no clear evidence on all-cause mortality. However, Quint is optimistic that by combining real-world evidence with randomized controlled trials powered to address CVD risk and mortality, the evidence may become more robust in the future.

Shift in treatment

In clinical practice, a shift in perspective is needed when managing COPD patients. Improving diagnostic accuracy will require closer collaboration between pulmonologists and cardiologists, along with the development of holistic guidelines for managing multimorbidity in patients with complex chronic conditions. Early detection, phenotyping, and timely treatment are vital to reducing CVD risk in the COPD population.

Emil Bojsen-Møller
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A whole session on research from a primary care perspective!

Ever wondered about treatable traits of obstructive lung diseases in primary care, the importance of social support for persons living with COPD, or blood eosinophil levels in the general population? Session 179 on Sunday afternoon was all about research addressing the daily needs of health care professionals. If you missed the session, you will be able to see the recording on the ERS congress´ homepage – watching is highly recommended!

Eosinophil levels, what's normal?

Have you ever wondered what blood eosinophil levels to expect in the general population? Reshed Abohalaka from Sweden did, and he found the answer with the help of the Western Sweden Asthma Study[1]. From the 30.000 persons included there, 2000 were randomly selected for deep clinical evaluations, including collection of blood samples. Cut-off levels for blood eosinophils differ between treatment guidelines. It is clear that age, allergy, asthma and COPD would have an influence on this parameter. In a sample devoid of asthma, allergy and COPD, the upper limit of normal in the general population from the Western Sweden Asthma Study was between 300 and 400 cells per µL, the higher level observed with higher age.

Taking the right medication right

Lars Dijk from the Netherlands presented data to quantify the prevalence of different treatable traits in asthma and COPD. From his research, in 10.5% of diseased persons treatable traits were not identifiable, 27.6% had one, and 61.9% showed 2 or more treatable traits[2]. The most commonly observed treatable traits were insufficient inhaler technique, low adherence to treatment, and eosinophilic inflammation. When meeting persons living with asthma and/or COPD, assessing these issues is low

hanging fruit. Especially when considering stepping up treatment – to take the medication right is as important as taking the right medication!

Importance of social support

But not all is about medication: there is a clear link between social support and patient reported outcomes. The paper submitted by Izolde Bouloukaki from Greece makes an important contribution to a severely understudied health aspect. Data was collected from rural areas of Crete to show how much social support persons living with COPD receive, both related to health but also "life in general".

Social support can most often be offered by family, friends, and spouses – however, 68% of persons living with COPD had low social support, the older the person is, the less support she or he received. Also, the lower the educational level of the person, the less social support is received[3]. This alone are alarming findings, sadly, they also impacted disease-related parameters. For example, these persons were doing worse in CAT and had more fatigue. After maybe the loss of a spouse, or when children are living in a distance, it is important to build and form society, to facilitate other networks in rural communities, be it amongst neighbours, or with the help of other institutions such as churches.

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Inhaler Technique – Tricky to Master

Correct inhaler technique is tricky but crucial for treatment of asthma and COPD, as you ensure optimal delivery and deposition of the medication when mastering the device used.

Inhaler technique, a long time week spot

Mastering inhaler technique is tricky, and a large review assessing 144 studies with roughly 60,000 subjects observed for inhaler technique during the last 40 years reveals no significant improvement of inhaler technique over time, with constantly ~3/10 of patients having an inhaler technique that is correct, ~4/10 being acceptable and ~3/10 being poor[1]. When looking at patients that uses multiple inhalers the problem of poor inhaler technique becomes even worse. A recent Swedish study shows that 7/10 that uses 2 or more devices make one or more critical errors when using their inhalers[2].

Ideas for improving inhaler technique

Tackling this persistent problem is important as correct inhaler technique is crucial to obtain disease control. There is no easy fix to this, but combined today's speakers at this session recommends the following:

- Learn the technique: As a healthcare professional you need to be comfortable with the inhaler technique of all the devices used!
- Teach the technique: Make sure the patient is comfortable with the device they are using. Ask the patient to show how they take their inhaler at every single visit.
- With or without spacer? If spacer is prescribed, dare to ask if it is used every time – if not, explain that this is crucial as spray inhaler technique is very different with and without spacer.
- Reduce the number of inhalers that a patient uses – ideally use one, if possible.
- Motivate: Explain to the patient why correct inhaler technique is critical for their treatment – that it influences how much medication they are receiving and how well it deposits in the lungs.

Achieving correct inhaler technique is a combined responsibility between healthcare professionals incl. general practicians, nurses and specialist, patients, pharmacists, and patient associations. Stated by the speakers – ensuring correct inhaler technique must be a main focus at each interaction between asthma/COPD patients and healthcare professionals.

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What is Pulmonary Rehabilitation?

Professor, Sally Singh from the University of Leicester, UK, delicately presented an overview of the current challenges in pulmonary rehabilitation for breathlessness disorders. Pulmonary rehabilitation (PR) is recommended for all persons living with chronic lung disease including, chronic obstructive pulmonary disease (COPD), and should be the cornerstone in the treatment plan[1]. PR must consist of an initial comprehensive assessment of patient's exercise capacity, dyspnoea and nutrition to individualize the program to fit patient goals. Subsequently, an exercise program should be individually prescribed, progressed and delivered by trained health care professionals[2]. Furthermore, delivery of a structured education program and measurement of core outcomes is recommended[3].

The evidence that favours pulmonary rehabilitation is enormous

Participation in PR relieves dyspnoea, reduces fatigue, improves exercise capacity enhances health-related quality of life, increases participants control over their disease and reduces hospital admissions[4,5]. The body of evidence is so extensive and clinically relevant that the Cochrane review[4], who is gathering all information on pulmonary rehabilitation for COPD, stated that:

"It is our opinion that additional RCTs comparing pulmonary rehabilitation and conventional care in COPD are not warranted"

What are the challenges?

However, as with all behaviour change interventions, the challenges lie in the implementation processes and scaling up of evidence-based intervention programmes that extends beyond 1-year of participation.

Professor Singh highlighted key features that will help to increase the probability of a successful pulmonary rehab program. Important features include education and motivation of staff, service guided by evidence and robust data collection of key performance indicators that can help improve quality of care. Also, PR needs to be delivered *promptly*. Patients often wait a long time before included in a PR program, while pharmacological treatments are immediately available, which is not optimal.

Excellent evidence – poor access

Despite the substantial evidence in favour of PR many COPD patients do not have access to PR in their care[7]. One limiting factor is the referral physicians' lack of understanding of the value of PR.

"You can have the best PR program in the world, but if you do not get patients referred, the program is useless" – Professor Sally Singh

Many doctors are uncertain about the effect of PR and recent evidence show that adding a pulmonary specialist in primary care could be a way to increase adherence to treatment guidelines in primary care[8].

Pulmonary rehabilitation does not have to be complicated

Effective programs do not have to be complex with large investments in training equipment. For example, Patel and colleagues found that there were similar changes in exercise capacity or quality of life when comparing an exercise program performed in a well-equipped gym with an exercise program performed with minimal equipment[9]. But when designing PR program, it is essential to understand the patients' preferences to optimize adherence.

National audit program – essential for up-scaling

On a national level, Professor Singh stressed that it is highly important to collect data on key performance indicators to assess the quality

and the access of PR in the care of asthma and COPD. The national Asthma and Chronic Obstructive Pulmonary Disease Audit Programme is a report that combines data on asthma, COPD and pulmonary rehabilitation from primary and secondary care to inform about the quality and availability of different core measures within respiratory care in the UK[6]. The report shows that only 40 % of adults with stable COPD started a PR-program within 90 days of receiving the referral or receipt. For adults admitted to hospital with a COPD exacerbation, only 20 % started a PR within 30 days after receiving referral or receipt[6].

In summary, PR is an effective intervention with clear evidence and guidance for delivery. It does not have to be difficult or complex to achieve effect, but we need to consider referrers AND patients preferences when we develop interventions. Furthermore, routinely collection and analysis of data is essential to support delivery of high-quality care and to inform stakeholders PR is essential to prioritize in respiratory care.

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Let the music play – music therapy as an adjunct to clinical care

Music therapy options, including music listening and singing may address breathlessness, anxiety and depression to boost psychological well-being and motivation to exercise in people with chronic respiratory disease.

Listening

– not as passive as you'd think

Music listening at rest or during exercise is considered as a passive form of intervention, but it triggers psychological, psychophysiological and physiological activity[1-3]. Music exerts its effects through neuro-activation as well as hormonal and metabolic responses. At rest, it can reduce vital signs while during exercise it can enhance exercise performance. From a psychological perspective, music can trigger different memories or emotions and have a positive impact on mood, facilitating relaxation or enjoyment of an activity. Listening to music can help shift focus away from the symptoms such as dyspnoea and fatigue.

Chill out music

A few studies in people with COPD have focused on music listening at rest[1,4]. In these studies, music was applied from a single session to 5 times a week for 8 months. The music was a mix of lyrical and non-lyrical and either in an unspecified or in slow tempo (60-80 bpm). A positive effect, in terms of lowering anxiety, was seen and the longer the duration, the higher the magnitude. No effect on depression, Quolity of Life or dyspnoea was observed. For those with anxiety, listening to music at rest may be another tool in the self-management tool kit.

Workout music and playlist

For music applied during exercise, studies have shown mixed effect on psychological symptoms such as anxiety. Music in these studies was derived from the participants or the clinician's collection and lead to improvement of physical capacity and a positive trend in QoL. In home-based walking, high adherence (92%) was seen when the cadence of music was synchronized with the gait speed. Music can provide a positive distraction from breathlessness and fatigue during 6-minute walk test, while also improving mood and relaxation[6]. In conclusion, application of music during exercise can add some form of distraction from symptoms and promote control of symptoms. Being able to choose your own music is important, according to the music therapy literature, as this may promote empowerment.[5]

Singing

Singing is an active form of music therapy, requiring active inspiration/expiration for phrase length and sound volume. The control of expiratory flow used in singing could help people with lung disease breathe more comfortably. Singing activates the inspiratory muscles. It may also help reduce dynamic hyperinflation and improve muscle length tension relationships. When combined with e.g. postural exercises or breathing exercises, singing may serve as a suitable physical form of activity for some patients[7].

Singing together

Group singing options seem to include many layers, which have recently been explored: relaxation, postural and breathing exercises and, on top of that, the vocalization and singing. Sensory and affective dimensions of dyspnoea can be targeted with singing, connecting breathing to a more positive activity than fear and anxiety. The social aspect of singing can help reduce isolation and loneliness, common among people with lung diseases.[10]

Structured musical pulmonary rehabilitation

Various group-singing programs for people with impaired lungs have emerged during the recent years (Sing Strong, Sing for Better Breathing, Sing for Lung Health). Most of them offer short or medium duration group singing (6-24 weeks) and the songs were facilitator selected.[11] When explored, findings showed a small increase in respiratory muscle strength and some transient reduction of hyperinflation.[11,12] Improvement in the physical part of QoL was found, but not in the mental part.[11]

Keeping it up

A longer, one-year study in 28 people with COPD[9] offered weekly group-singing. Here, participants were able to influence the selection of songs. After 4 months there was a reduction in the static lung volumes and after 12 months, both exercise capacity and anxiety were improved. Adherence after 12 months was relatively high (85%), which suggested that this is an acceptable intervention and gave a hint of other patient perceived benefits. The benefits include e.g. increasing awareness of breathing control, ease of dyspnoea, improved coping with lung condition, change in attitude and improved self-efficacy, enhanced social connection and reduced isolation, sense of achievement and shared purpose (individual and group), distraction and respite from lung condition, motivation to re-engage pulmonary rehabilitation of exercise and improved exercise tolerance[13,14].

Findings and impact on COPD care

Listening to music – Perhaps not everyone is a "responder" to music therapy, but for those who enjoy it, it can boost self-management. When using music to relax or to boost exercise, chances of success are probably higher if the person enjoy listening to music and if the music selection reflects the person's taste in music. As music listening may reduce symptom intensity and improve exercise performance, it could help support behavioural change[15].

Singing – Similarly, the success for a singing activity depends on willingness to participate and having influence on song selection. It may not be realistic to manage singing sessions for patients 1-2 times per week, so providing singing resources for home use could be a way forward. Group singing offers benefits beyond improved breathing control: sharing positive experiences, achieving music together, it provides psychosocial support for coping and reduces loneliness and therefore could be an effective self-management strategy[16].

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Post-prematurity lung disease: from birth to adulthood

Globally, almost 1 in 10 births are preterm, resulting in 13-15 million preterm babies annually[1]. Thankfully, the survival rates have increased dramatically in the last decades.

Perinatal strategies to prevent lung disease and promote lung development in the preterm lung

SPEAKER ANNA LAVIZZARI

Impact on lung development and lung health

Prematurity has been linked to an increased risk of Bronchopulmonary Dysplasia (BPD). On top of being a complex lung disease, multiple definitions exist in parallel – based on treatment strategies rather than physiopathology. The complexity of definitions is confounding the capability to predict long-term respiratory outcomes[2].

Premature birth (week 17 -34) disrupts the normal lung development, as alveoli have not yet been developed only primary respiratory bronchioles/ saccules. Poor microvasculature development, no/ low surfactant production and minimal matrix in tissue are other consequences, all impacting the baby's future lung health.

There are several known antennal and early postnatal risk factors for respiratory morbidity. Inflammations/infections and chorioamnionitis (CA, bacterial infection in membranes surrounding the foetus or amniotic fluid) were mentioned as increasing the risk for BPD but leading to a decreased risk for respiratory distress syndrome (RDS)[3].

Foetal infections

According to a hypothesis by Watterberg et al, CA could lead to an accelerated functional lung maturation but also increase the vulnerability of the preterm lung to post-natal injury[4]. The effect of CA on foetal lungs depends on the type of pathogen duration of foetal exposure, severity of lung exposure, interaction with post-natal risk factors, and interindividual susceptibility[3]. Even though research has shown that a history of CA is associated with an increased risk of developing BPD, this association may be modulated by risk of RDS and gestational age[5].

Other risk factors for BPD

Furthermore, vascular abnormalities in the placenta, preeclampsia and intra-uterine growth restriction are also risk factors for BPD and impaired lung function later in life[6]. There are also antenatal determinants of respiratory health for the babies[7]. Maternal smoking was mentioned as an increased risk for developing BPD after preterm birth and it has been shown to prolong the need for mechanical ventilation and respiratory support in the neonatal intensive care unit (NICU)[7]. Preterm infants whose mothers were still smoking, had higher rates of respiratory diseases later during childhood[7].

Counteractions to reduce risk of BPD

So, what can be done to handle these challenges? At the NICU, there are some preventive strategies available, reducing the risk of lung damage. Early non-invasive respiratory support (Nasal CPAP) has been shown to decrease the risk of BPD and death[8]. The updated European guidelines on Neonatology[9] contains recommendations om treatment strategies at the NICU.

Key points to consider for reducing burden of disease in prematurely born

1. Lung disease associated with prematurity results from the complex interaction of different etiological factors that occur antenatally and postnatally.
2. No single intervention is powerful enough to remove the burden of post-prematurity lung disease, but a multipronged preventive approach has the potential to reduce the burden of disease.
3. Identifying infants at risk early and ensure lung function trajectory follow-up. Understanding clinical phenotyping may lead to targeted interventions and improved clinical outcomes.
4. Close collaboration between neonatologists, paediatricians, and adult respiratory experts can improve and develop clinical practice and research in this field.

Following patients throughout life

SPEAKER LISBETH DUIJTS

Pulmonary lung disease has lifelong consequences and is seen in approximately 30% of preterm born babies during childhood[10]. They also have poorer lung function, shown as 7-15% lower FEV_1, stronger decline and for each week born earlier, more signs and symptoms of lung morbidity.

Good health is a team effort

Less is known about consequences in the span of a lifetime, but studies have shown an up to 2.9-fold increased risk for asthma/COPD[10].

Early life events, including premature birth and low birth weight was included as a separate COPD classification (COPD-D) in the GOLD report 2023. The relationship between preterm birth and chronic respiratory diseases is not fully elucidated, but infants born preterm seem to have increased risks of respiratory morbidity across the life course[10]. Moreover, quite often there are related diagnoses and co-morbidities such as central dysregulated breathing, sleep disorders, and/or pulmonary hypertension, present. If so, the health outcomes may improve by the disease management by a multi-disciplinary team[11]. This team could include a pulmonologist, cardiologist/nephrologist, neonatologist/general practitioner, supporting staff (social worker) and an ophthalmologist. The team sets up a clear follow-up scheme from childhood to mid-adulthood, depending on individual needs – which may very well vary across life[12]. To ensure sustained multidisciplinary care may increase the chance to optimize the persons full potential.

Maria Messerer
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Smoking in patients with obstructive airway diseases: a challenge beyond COPD

The session focused on the challenges of adolescent smoking, its harmful effects on asthma and COPD patients, and the reduced effectiveness of treatments in smokers. It highlighted that continued smoking accelerates disease progression, while quitting improves symptoms and treatment outcomes. The key message was the critical need for smoking cessation to promote better long-term health.

Long term consequences of short term decisions

SPEAKER STRAMATOULA TSRIKIKA (GREECE)

The youth tobacco epidemic is a major public health threat and adolescent smoking cessation has many unique challenges, some addressed in a presentation by Stramatoula Tsrikika. Rising youth tobacco use, influenced by social media, peer pressure, and industry tactics, is further complicated by experimentation with e-liquids and fancy modifiable devices, often without considering long-term health risks.

Addressing this issue requires collaboration among policymakers, healthcare professionals, educators, and communities. Key actions include raising awareness of smoking risks through evidence-based interventions and fostering supportive environments for reducing tobacco use. Together, these efforts aim to protect adolescents from the harmful effects of smoking.

Inflammatory pathways triggered by smoking

SPEAKER GUY BRUSSELLE (BELGIUM)

Moving on to the second talk, Guy Brusseles delved into the cellular mechanisms associated with smoking in asthma. He discussed the potential inflammatory pathways underlying asthma immunopathology in adults with a smoking history. Cigarette smoke, rich in reactive oxygen species, activates airway epithelial cells, triggering the production of proinflammatory mediators and resulting in distinct inflammatory phenotypes[1]. Both type 2-high and type 2-low inflammatory phenotypes are observed in smoking asthmatics, with smoking linked to neutrophilic inflammation driven by type 1 and type 17 pathways[1]. Looking more in detail at the innate lymphoid cells (ILCs) that are activated by alarmins such as TSLP, IL-25 and IL-33, Brusselles showed data demonstrating that IL-33 expression is decreased in bronchial mucosa of current smokers. This may have important relevance for future treatment choices following the ongoing development of new biologics.

Airway restructuring, leading to airway limitation

Smoking also induces structural changes in the airways, such as goblet cell hyperplasia and squamous metaplasia, and in the lung parenchyma, including the destruction of alveolar attachments. In a study by Verleden and colleagues examining small airways disease in smokers with pre-COPD, they observed a significant loss of alveolar attachments compared to healthy controls[2]. This finding is important as the parenchymal destruction is contributing to airflow limitation together with airway inflammation and remodelling.

Sustained smoking worsens COPD outcome

SPEAKER ASLI GÖREK DILEKTAŞLI (TURKEY)

Dr Aslı Görek Dilektaşlı talked about smoking before and after COPD diagnosis. Dilektaşlı showed that smoking after a COPD diagnosis can lead to an accelerated decline in lung function and an increase in symptom burden[3]. The frequency of exacerbations of COPD may either increase or decrease[4], but the progression of emphysema and air trapping is likely to worsen[5,6]. This progression is associated with a higher risk of hospitalizations and mortality[7]. Additionally, continued smoking may alter how patients respond to pharmacotherapy, potentially reducing the effectiveness of treatments.

Plenty of reasons to continue to offer support for smoking cessation

On the other hand, benefits of quitting smoking for individuals with COPD include improved respiratory symptoms[8], better lung function, slower disease progression and reduced airway inflammation[9-10]. Moreover, quitting smoking lowers the risk of complications and mortality. In conclusion, research strongly support that smoking cessation is the most effective way to prevent and slow progression of COPD, and it reduces both mortality and morbidity[11]. Hence, healthcare providers should actively support smoking cessation and encourage patients to quit smoking for better lung health outcomes.

Impact of smoking on treatment response

SPEAKER MARKO IDZKO (AUSTRIA)

Finally, Marko Idzko highlighted recent findings on how smoking affects the response to biological treatments and corticosteroid unresponsiveness in asthmatic smokers. Idzko discussed how smoking interferes with glucocorticoid receptor signalling in asthmatic patients by downregulating the expression of the receptor. He further provided evidence that inhaled corticosteroids have reduced efficacy in smokers with severe asthma, including patients with COPD[12]. While guidelines recommend quitting smoking before starting biologic therapies, smokers have been excluded from randomized controlled trials. New real-world data suggest that smokers may have a reduced response to biological treatments[13]. Idzko showed data demonstrating that biologics remain effective for treating severe asthma, in patients suffering on severe asthma and COPD, as well as in patients suffering on severe COPD and eosinophilic asthma (both allergic and non-allergic)[14-16]. In conclusion, asthma patients should avoid smoking or quit to improve the effectiveness of their treatment.

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Towards health equity in 2050

The world health organization WHO Europe is working together with the European Respiratory Society on a joint report on Chronic Respiratory Disease, focusing on health equity. On behalf of WHO Europe, Galea Gauden gave some highlights from the coming report.

What is health equity?

Health equity is a term referring to fair and just opportunity to maintain optimal health, regardless of race, ethnicity, disability, sexual orientation, gender identity, socioeconomic status, geography, preferred language, or other factors. For the respiratory field, this not only includes equal opportunities to clean air, and good conditions for healthy lung development, but also access to treatment and healthcare.

Disproportionate burden, as well as risk

Several factors contributing to poor lung health depend on geography and socioeconomic status. Within the European region, disparities are influencing prevalence of respiratory disease and their risk factors, disproportionately affecting disadvantaged populations in most societies. Both in terms of burden of disease as well as higher exposure to risk.

Smoking

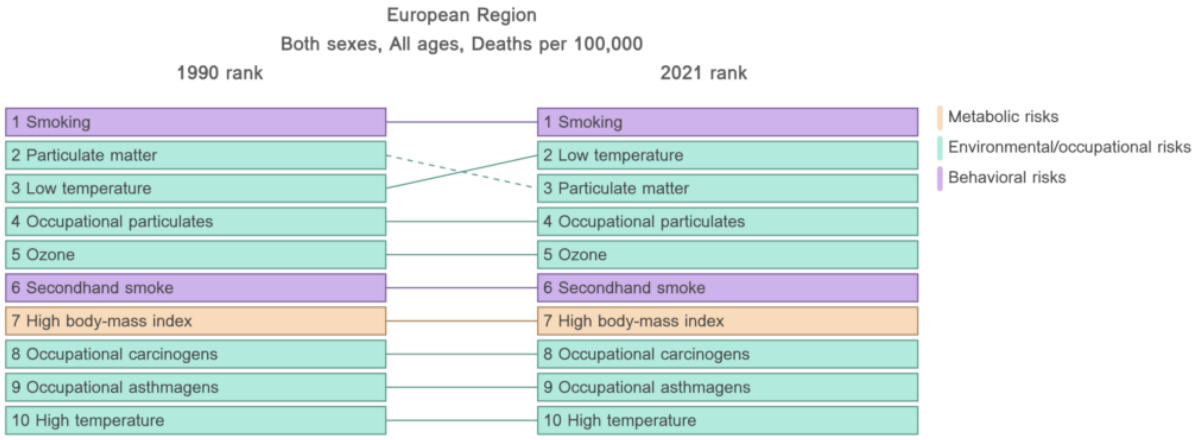
Comparing data from 1990 with 2021, smoking remains the number one risk factor contributing to deaths in chronic respiratory disease in the European region[1]. Having been front runners in tobacco control for many decades, it now looks as if Europe, by 2030, will become the region with the world's highest smoking rates, 23% of population. The risk of developing disease from smoking is higher in women, so a concerning trend is the increased tobacco use in women – Europe already has the highest share of female smokers.

Global burden of disease 2021

To explore risk factors and attribution to risks and impact on years with disability, please visit *https://vizhub.healthdata.org/gbd-compare/*

Risk exposure and vulnerability

Although smoking plays a leading role among risk factors, air pollution, occupational and chemical hazards and other risk factors contribute



Risks attributed to deaths in Chronic Respiratory diseases (data from Global burden of disease)

significantly to impaired respiratory health for both genders. These are harmful for all people, but people with lower socioeconomic status tend to have higher risk exposure. There is also a difference in vulnerability among different groups, as children, pregnant women, elderly, people with chronical diseases are more likely to experience adverse health effects than others.

Joined up governance, a winning strategy

Although this development seems hopeless, Finland was mentioned as a positive example of how a multi-stakeholder approach can make a difference. Thanks to a long-term, systematic lung health policy smoking incidence has been kept down. The reward? A reduction of burden of a respiratory disease for both patients and society, by the looks of real-world data.[2]

What can we do?

The audience was encouraged to make use of the upcoming report to put pressure on policy makers to make them understand the urgency of addressing risk factors leading to respiratory disease. Both in short and long term, we also need to address how to manage chronic respiratory diseases in conflict, in time of humanitarian emergency, climate change and figure out: how to work for a Europe that is resilient against non-communicable disease, carbon neutral, just, safe and at peace.

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