WHL · NEWSLETTER

News from the World Hypertension League (WHL).
In Official Relations with the International Society of Hypertension and the World Health Organization

No. 174, December 2021

President's Column

Dr. Xin-Hua Zhang

Season's greetings to our colleagues, partners and friends! The stressful and fruitful year 2021 is nearly complete with great works shared in the last issue of WHL Newsletter 2021.

Hopefully, in 2022, COVID-19 will not be a threat to the health system or to people's daily lives, as more people become immunised and more efficient control measures are implemented globally. In 2022, we should be able to celebrate World Hypertension Day with colleagues and patients together, and continue with the theme "Measure your blood pressure accurately, control it, live longer".

We will meet next year in Macao and Zhuhai on 13-15 May to attend the 5th World Hypertension Congress jointly organized by WHL and partners in Asia and China, and we can also meet in Kyoto on 12-16 October for the 29th ISH Scientific Conference.

The Call to Action for Hypertension Control in Africa and for sodium reduction globally will turn into real actions in 2022, and WHL will continue to support the implementation of the HEARTS package in primary care services to improve hypertension control globally!

Have a Happy and Healthy New Year!

Xin-Hua Zhang

Note from the Editor

Dr. Dan Lackland

With the last issue of the *Newsletter* for 2021, we are pleased to include several new sections that enhance the format. The 'Hot Off The Press' special reviews regarding sodium and chlorthalidone will become a regular feature. The reports from partners and member societies represent a great and positive direction for the year's end. As we head into 2022, we are pleased to note the call for nominations for the WHL Excellence Awards, as well as the celebration events for World Hypertension Day May 17, and the in-person gathering for the ISH meeting in Kyoto. As we recognize the successes in responding to the many challenges from 2021, we enter the Season with hopes of a peaceful transition to global health and prosperity for all.

Dan Lackland

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DR. EDWARD J. ROCCELLA IN MEMORIAM

The WHL family was greatly saddened with the passing of Dr Edward J. Roccella. Dr. Roccella was a beacon for global hypertension control.

The global hypertension world and the World Hypertension League mourns the loss of a true population health leader. Ed Roccella, the longest serving Coordinator of the U.S. National High Blood Pressure Education Program (NHBPEP) of the National Heart, Lung, and Blood Institute (NHLBI), died at the age of 77 on November 18, 2021, after a short illness. (A full obituary can be found in the Washington Post.)

Ed exerted a key influence on advancing public health strategies for preventing and controlling hypertension, in the U.S and internationally, through his management of the NHBPEP Coordinating Committee, under the general direction of the NHLBI Director. Ed was chiefly responsible for guiding the creation of the Reports of the Joint National Committee (JNC) for the Prevention, Detection, Evaluation, and Treatment of High Blood Pressure, the first and arguably most influential of such guidelines. Under Ed's coordination, numerous in-depth reports were also produced focused on prevention and adherence and on important population sub-groups including children, older persons, women, persons with diabetes and/or kidney disease. It has been no coincidence that the greatest strides in treatment and control of hypertension occurred during the life of the NHBPEP.

Ed's astuteness and interpersonal skills were well suited for his approach for prevention and management focused on collaboration and cooperation – the Team –, evident in the dissemination and implementation of research findings from the major hypertension prevention and treatment trials, as well as forums focused on salt/sodium intake, antihypertensive therapy, health disparities, accurate blood pressure measurement and health behavior modification. Health education for all the population was always a top priority for Ed as demonstrated in his leadership with the WHL Children's Art Program.

Ed will be remembered as the epitome of a knowledgeable, dedicated public servant, who exercised untiring, highly effective, low-profile leadership in one of the most important areas of public health. His strength and resiliency in both his professional and personal life set an example for us all. We express our sincere sympathy to Dr. Roccella's wife, Eileen.

Dr. Jeffrey Cutler
Dr. Paul Whelton
Dr. Dan Lackland

HOT OFF THE PRESS

NEJM Sodium Cohort Study

A review by Norman R.C. Campbell, MD and Paul K. Whelton, MB, MD, MSc

Recently, the NEJM published a meta-analysis of 6 prospective cohort studies of healthy participants that included 2 or more 24 hr. urine collections to define sodium and potassium excretion (intake) (1). The average 24 hr. sodium excretion was 3270 mg (10th to 90th percentile, 2099 to 4899 mg per day) and follow-up averaged close to 9 years. Higher sodium excretion (lower potassium excretion, and a higher sodium-to-potassium excretion ratio) had a higher rate of CVD events. Each 1000 mg per day increase in sodium excretion was associated with an 18% increase in cardiovascular events. Each increase of 1000 mg in potassium excretion was associated with an 18% decrease in CVD events. There was a linear association between cardiovascular events and sodium excretion between 1846 to 5520 mg per 24 hrs. and potassium excretion between 1462 to 3961 mg per 24 hrs. The results were attenuated when only one 24 hr. urine was used to assess sodium excretion.

The NEJM results are consistent with those from meta-analysis of randomized controlled trials (2). The most recent meta-analysis of randomized controlled trials, conducted under the auspices of U.S. National Academies of Sciences, Engineering, and Medicine (NASEM), also showed that a reduction in sodium intake from an average of

3646, to 2690 mg per day reduced CVD by 26% (2). The NASEM analysis found linearity of CVD events between sodium excretion 2300 to 4100 mg per day. The NASEM found weaker evidence to suggest linearity continued below 2300 mg per day.

These results from the recent NEJM meta-analysis of cohort studies and the NASEM meta-analysis of randomized controlled trials are inconsistent with the results of studies that have used weak research methods showing spurious J and U curves (2, 3). The latter studies have been heavily criticized. Many of them used estimating equations (e.g., Kawasaki equation) to calculate an approximation of 24-hour urinary excretion from spot urine measurements of sodium concentration. These measurements methods are known to produce inaccurate estimates of 24-hour urinary sodium excretion and spurious associations (J curve) with blood pressure and mortality (4-9). Most would view the current evidence as further documenting the need for implementation of recommendations to reduce dietary sodium consumption.

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Chlorthalidone for Hypertension in Advanced Kidney Disease

A review by Paul K. Whelton, MB, MD, MSc and Norman R.C. Campbell, MD

High blood pressure (BP) is common and often difficult to control in patients with advanced chronic kidney disease (CKD). The efficacy of chlortalidone for managing hypertension in patients with stage 4 CKD [estimated glomerular filtration rate (eGFR) from 15 to less than 30 ml/min/1.73m2] and poorly controlled hypertension [mean 24-hour ambulatory systolic BP ≥130 mmHg or diastolic BP ≥ 80 mmHg, while receiving at least 1 antihypertensive medication] was studied in the recently reported Chlorthalidone in Chronic Kidney Disease (CLICK) randomized controlled trial1. Specifically, 160 patients who met the trial inclusion requirements were randomly assigned to receive chlorthalidone at an initial dose of 12.5 mg per day, with increases every 4 weeks, if needed, to a maximum of 50 mg per day, or placebo. The trial was conducted over a period of 12-weeks, after which the participants were evaluated at a post-trial visit 2-weeks following discontinuation of the chlorthalidone or placebo.

At randomization, the mean eGFR was 23 ml/min/1.73m2 and the mean 24-hour ambulatory SBPs were 142.6 and 140.1 mm Hg in the chlorthalidone and placebo group, respectively. From baseline to 12 weeks, the mean ambulatory SBP declined by 11.0 mm Hg in the chlorthalidone group and 0.5 mm Hg in the placebo group, resulting in a 10.5 mm Hg lower SBP in the chlorthalidone group compared with placebo ($p<0.001$). The percentage change in urinary albumin-to-creatinine ratio from baseline to 12-weeks was -52% in the chlorthalidone group and -4% in the placebo group. At the 2-week post-trial visit, after the assigned trial treatments had been discontinued, the percentage change in albumin-to-creatinine ratio in the chlorthalidone group was -38% and -6% in the placebo group. The chlorthalidone group experienced an average net reduction in eGFR of 2-3 ml/min/1.73m2 during treatment but this changed to a net increase of 0.2 ml/min/1.73m2 at the 2-week post-trial visit, suggesting the initial chlorthalidone-related reduction resulted from a reversible hemodynamic effect. In addition to the reduction in eGFR, the

chlorthalidone group experienced several other expected adverse effects including hypokalemia, hyperuricemia, hyperglycemia, and dizziness.

The trial suggests the conventional wisdom that thiazide and thiazide-like diuretics lose their antihypertensive effects in patients with CKD is incorrect. Most of us were taught to discontinue thiazides when serum creatinine levels exceeded roughly 2 mg/dL. However, the CLICK trial results suggest that chlorthalidone is effective for BP lowering even in patients with advanced CKD. First released by the US FDA in 1960, chlorthalidone and other longer-acting agents are the preferred diuretics in the ACC/AHA BP Guideline2. In addition to the substantial BP effects, the CLICK trial suggests that chlorthalidone therapy in advanced kidney disease may improve kidney performance, at least tubular function.

There are two important caveats to interpretation of the CLICK trial. First, the trial size and duration were insufficient to directly assess treatment effect on clinical cardiovascular and kidney disease outcomes. Second, patients with advanced CKD have compromised regulatory capacity and must be monitored carefully for both hemodynamic and laboratory changes. Recognizing these two caveats, the CLICK trial results are impressive and suggest an important role for chlorthalidone and perhaps other long-acting diuretics in patients with advanced CKD who have poorly controlled BP.

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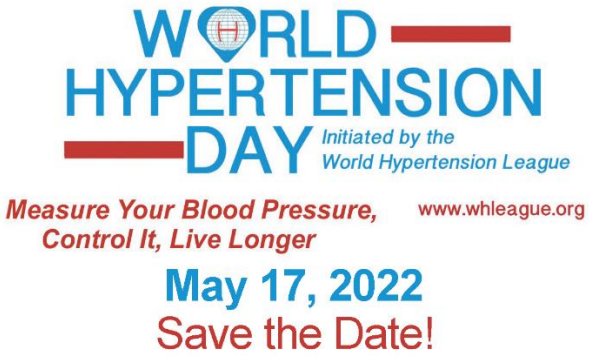
WORLD HYPERTENSION DAY 2022 SAVE THE DATE



World Hypertension Day 2022's theme ***Measure Your Blood Pressure Accurately, Control It, Live Longer*** continues to focus on the importance of accuratate blood pressure measurement in controlling blood pressure. Click here for more info.

5th WHL WORLD HYPERTENSION CONGRESS - SAVE THE DATE

May 13-15, 2022
Zhuhai and Macau, China

This global event will be held in conjunction with World Hypertension Day (17th May 2022). The WHL welcomes all partners, member organizations and colleagues to participate in the conference digitally or in-person to share your efforts related to the following themes:

1. Accurate measurement of blood pressure with validated devices and standard procedures
2. Actions to improve the coverage and efficiency of hypertension control, especially in resource restricted areas.
3. Enhancing sodium reduction with support from high quality research and health policies

Holiday Greetings from the WHL

CALL FOR 2022 AWARD NOMINEES

We are pleased to announce the Call for Nominations for the 2022 WHL Excellence Awards! Categories and last year's winners are listed below; nomination forms are available here.

Detlev Ganten Excellence Award in Hypertension and Global Health Implementation
Prof. Joel Ménard, MD, MSc

Peter Sleight Excellence Award in Hypertension Clinical Research
Prof. Bryan Williams, MD
Prof. Lawrence Beilin, MBBS, MD, MA

Claude Lenfant Excellence Award in Population Hypertension Control
Dr. Anthony Rodgers, MB ChB, PhD

Liu Lisheng Excellence Award in Population Cardio-vascular Risk Factor Control
Prof. Hong Yuan, MD

Norman Campbell Excellence Award in Population Hypertension Prevention and Control
Dr. Prabhdeep Kaur, MBBS, DrPH

Daniel Lackland Excellence Award in Diplomacy & Advocacy for Population Hypertension Risk Reduction
Dr. Ralph L. Sacco, MD, MS

Graham MacGregor Excellence Award in Dietary Salt Reduction at the Population Level
Ms. Adriana Blanco Metzler, MSc
Dr. Hye-Kyung Park, PhD
Prof. Zhang Hongye, MD

Organizational Excellence Award in Dietary Salt Reduction at the Population Level
South Africa Salt Reduction Program

Organizational Excellence Award in Population Hypertension Prevention and Control
Chilean Hypertension Control Program

WHL REGIONAL NEWS

Philippines Society of Hypertension

Submitted by Prof. Leilani Mercado-Asis, MD, PhD, MPH, MEd (DE); WHL Board Member; President, PSH

In Oct 2021, the Philippines Society of Hypertension (PSH) announced the publication of an **Executive Summary of the 2020 clinical practice guidelines for the management of hypertension in the Philippines** in the *Journal of Clinical Hypertension.* Several societies collaborated together to develop the guidelines, arising from the need for a comprehensive local practice guideline for the diagnosis, treatment, and follow up of persons with hypertension. The working group analyzed 30 clinical questions commonly asked in practice, looking into the definition of hypertension, treatment thresholds, blood pressure targets, and appropriate medications to reach targets. This guideline includes recommendations for the specific management of hypertension among individuals with uncomplicated hypertension, hypertension among those with diabetes, stroke, chronic kidney disease, as well as hypertension among pregnant women and pediatric populations. It aims to aid Filipino healthcare professionals in providing evidence-based care for persons with hypertension and helping those with hypertension adequately control their blood pressure and reduce their CV risk. For the full article **click here.**

WHL South Pacific Regional Office

Submitted by Professor Markus Schlaich, MD
President, High Blood Pressure Research Council of Australia (HBPRCA); Scientific Council Member, International Society of Hypertension (ISH); Director, WHL South Pacific Regional Office

The High Blood Pressure Research Council of Australia (HBPRCA) was delighted to see that the Federal Government had allocated $40.5 million in the 2021-2022 Federal Budget for ambulatory blood pressure monitoring - a new service for diagnosing high blood pressure that is more accurate through blood pressure monitoring over 24 hours. The HBPRCA was extremely pleased that the Medical Services Advisory Committee recommended

Medicare reimbursement for ambulatory blood pressure monitoring and grateful to the Commonwealth Minister for Health, the Hon Greg Hunt MP, who endorsed this application. This new Medicare Benefits Scheme (MBS) item was scheduled to commence on 1 November 2021.

With around 1/3 of the adult population suffering from elevated BP in Australia, the benefits of the reimbursement are profound as it makes the gold standard for diagnosis of high blood pressure affordable, thereby helping to markedly reduce the number of undiagnosed cases of high blood pressure and facilitate adequate management to prevent adverse health consequences such as stroke and heart attacks.

A significant number of Australians are living with undiagnosed, untreated or uncontrolled high blood pressure. High blood pressure is a major risk factor for strokes, heart attacks, heart failure and kidney failure. The gold standard for diagnosing high blood pressure is ambulatory blood pressure monitoring which involves wearing a portable monitor over 24 hours to gauge an accurate measure of a patient's blood pressure during normal daily activity. However, until now this test was not reimbursed under Medicare and as such was out of the reach of many Australians who may have high blood pressure.

In 2018, a select committee of the High Blood Pressure Research Council (HBPRCA) which included Professor Geoffrey Head (Chair), Dr Anastasia Mihailidou, Professor Michael Stowasser (President at the time) and Professor Markus Schlaich (Current President) set in motion an application to the government to have ambulatory blood pressure monitoring included as a Medicare item number for the diagnosis of high blood pressure. This application was also endorsed by the Heart Foundation, Royal Australian College of General Practitioners and Cardiac Society of Australia & New Zealand.

The Medical Services Advisory Committee immediately accepted the clinical effectiveness of ambulatory blood pressure monitoring and after investigation of the cost/benefit aspects concluded that this technique would save lives and reduce hospitalisation costs compared to current practice. The outcome highlights the importance of 'out of office' blood pressure measurement and considerable gaps in effectively diagnosing and treating high blood pressure.

SODIUM REDUCTION NEWS

WHL RTSL ISH Sodium Fact Sheet

The World Health Organization has determined that reducing dietary sodium (salt- sodium chloride) is one of the most important and cost-effective means to enhance population health. Leading national and international nongovernmental health and scientific organizations have a strong role to play in supporting the reduction of dietary sodium at the population level.

The International Society of Hypertension, Resolve to Save Lives and the World Hypertension League have overseen the development of a fact sheet and global call to action based on the best available evidence linking dietary sodium to health concerns and on how to reduce dietary sodium. The fact sheet is intended to be used for advocacy to accelerate the spread and scale of dietary sodium reduction programs, and will be available soon. Currently the fact sheet is supported by over 50 international, national and regional organizations.

Organizations wishing to consider support can contact Dr Norm Campbell (ncampbel@ucalgary.ca) to obtain a draft copy. The final date for indicating support is Jan 15, 2022.

Salt and Sugar: Two Enemies of Healthy Blood Pressure in Children

Submitted by Gianfranco Parati and Simonetta Genovesi, University of Milano-Bicocca and Istituto Auxologico Italiano, IRCCS, Milan, Italy

The prevalence of arterial hypertension in pediatric age is not negligible and is associated with excess weight. Errors in dietary habits, both quantitative and qualitative, are an important factor that may promote the onset of hypertension. At all ages, salt and sugar consumption is frequently higher than suggested

by health agencies, but this is particularly true for younger subjects. The propensity for sweet taste is innate in children, and that for salty taste also develops early. These predispositions favor the development of unhealthy eating habits, especially in an environment with unlimited availability of sweet and salty food. Families are not very sensitive to this problem. Moreover, introduction of fructose-based sweeteners by food industry since the '70s has contributed to worsen this situation.

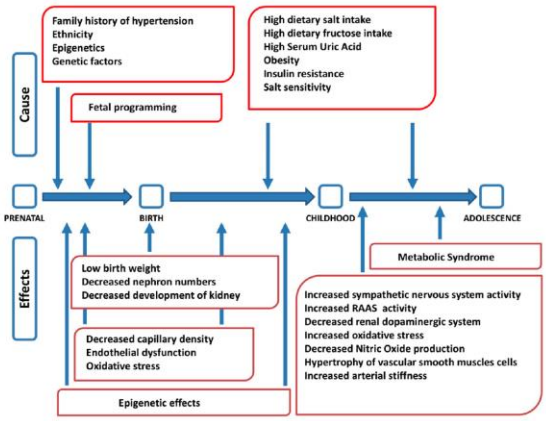


Figure: Factors interacting in the pathogenesis of hypertension at different life stages. From Genovesi et al, Nutrients 2021

Arterial hypertension is a complex condition with multifactorial origin. Numerous studies have shown an association between high salt intake and increase in blood pressure (BP) values, as well as between reduction in sodium intake and BP decrease. However, the exact etiopathogenetic mechanisms that lead to the development of arterial hypertension and its relationship with an excessive intake of salt have not yet been fully clarified. For a long time, it was thought that the main link between sodium and arterial hypertension was the expansion of the extracellular volume due to the osmotic effect of sodium, especially in salt-sensitive subjects. However, this mechanism has been questioned by the discovery that sodium can be stored in the body in a non-osmolar form. In fact, salt can also influence BP values through several other mechanisms involving the autonomic nervous system, the renin-angiotensin system, natriuretic peptides, insulin, leptin, and other endothelial mediators with endocrine activity. Moreover, through early epigenetic influences, the degree of salt consumption by the mother during pregnancy and of the child in the first years of life could program these systems in a favorable or unfavorable way with regard to development of hypertension.

It is important to specify that when we talk about salt we refer to sodium chloride, while when we talk about sugar we refer, as defined by the World Health Organization, to free sugars, not naturally present, but added to food (sucrose and fructose). We should also consider the role of uric acid, the production of which is stimulated, particularly in pediatric age, by an excessive consumption of fructose. In children and adolescents, the major source of free sugars are beverages sweetened with sucrose and/or high fructose sweetening syrups, which provide non-satiating calories with a high glycemic index, resulting in increased weight and risk of hypertension. An excessive introduction of fructose in the diet leads on one hand to an increase in the production of uric acid, on the other hand to that of free fatty acids, triglycerides, lactate, and methylglyoxal, all factors that can contribute to an increase in insulin resistance with a consequent increase in BP values. Uric acid contributes to an increase in BP values through several pathways: an increase in oxidative stress, as well as the production of tumor necrosis factor, interleukin 6, and other chemokines, stimulating inflammatory processes especially at the vascular level. In addition, uric acid increases insulin resistance. However, one of the most important mechanisms through which uric acid favors the development of hypertension is its direct action on arterioles, inhibiting the production of nitric oxide and favoring the onset of endothelial dysfunction. Fructose in addition to insulin resistance also promotes a resistance to leptin with stimulus to caloric intake. Numerous clinical studies have shown an association between uric acid plasma levels and BP in children.

In conclusion, excessive intake of salt and sugar leads to harmful consequences for the cardiovascular system, the most important of which is a BP increase. It is interesting to note that there is also a direct interaction between salt and sugar in this regard. Fructose stimulates the absorption of sodium in the kidney and intestine, conversely an excessive intake of salt creates a situation of hyperosmolarity in the portal vein with consequent activation of fructose

production. Clinical studies have also shown that in children and adolescents a high intake of salt is associated with an increased intake of liquids, especially in the form of soft drinks, with added fructose. Adequate education on the correct intake of salt and sugar in pediatric age is thus essential to ensure a healthy diet for children and adolescents, and to prevent early onset of hypertension[1].

Reference

[1] *Simonetta Genovesi, Marco Giussani, Antonina Orlando, Francesca Orgiu and Gianfranco Parati.*
Salt and Sugar: Two Enemies of Healthy Blood Pressure in Children. Nutrients 2021. 13: 697. https://doi.org/10.3390/nu13020697

National Salt & Sugar Reduction Initiative

NSSRI NATIONAL SALT & SUGAR REDUCTION INITIATIVE

Submitted by Andrea Sharkey, MPH, Project Manager Bureau of Chronic Disease Prevention, New York City Department of Health and Mental Hygiene

The National Salt and Sugar Reduction Initiative (NSSRI) started in 2009 (as the National Salt Reduction Initiative (NSRI)) with the goal of reducing sodium in the food supply to prevent cardiovascular disease. The New York City Health Department launched the initiative and convened a partnership of organizations from across the country to collectively support a healthier food supply. Working with industry, the NSRI set sodium reduction targets for 62 packaged food and 25 restaurant food categories for 2012 and 2014. Twenty-eight companies committed to working toward the targets. During the initiative, sodium density declined by 6.8%.

In 2018, the initiative expanded to address sugar using a similar target setting framework. In February 2021, voluntary sugar reduction targets were released for 15 categories of foods and beverages, to be met by 2023 and 2026. The NYC Health Department will assess progress toward the targets over time.

The NSSRI is excited to share these targets publicly to be used by the public health community, academics, advocates and the food and beverage industry.

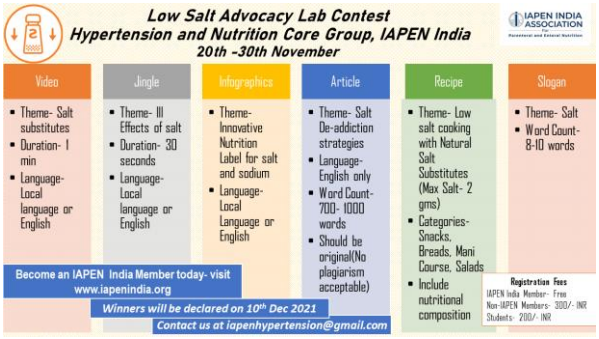
Low Salt Advocacy Lab E-contest

Submitted by Dr. Mansi Patil

That excessive consumption of salt/sodium adversely affects blood pressure is irrefutable. Consuming less than 5 g/ salt (< 2 g of sodium) per adult per day, from all sources, is the WHO recommended intake and the target that countries are to aim for with their dietary salt/sodium reduction initiatives.

Salt/sodium consumption in Asia is well above the recommended level, and we need to come up with innovative strategies to combat this growing epidemic. The reduction of salt/sodium consumption is one of the most cost-effective interventions to prevent hypertension and CVDs. An estimated 2.5 million deaths could be prevented each year if global salt consumption were reduced to the recommended level.

Whilst a range of salt reduction activities currently exists in India, there is no coordinated national government strategy on salt. In fact, there is a paucity of national policy in relation to public health nutrition in general.



To take this thought forward, Hypertension Nutrition Core Group IAPEN India is organising a "Low Salt Advocacy Lab" E-contest, open to all Dieticians, Nutritionists, Medical and Health Care Professionals.

We are inviting videos, jingles, infographics, articles, recipes, and slogans: to register click here. If you wish to become an IAPEN India Member, kindly fill out this Google form.

NEWS FROM OUR PARTNERS

RESOLVE TO SAVE LIVES

#BeatThePressure campaign launches to improve hypertension control around the world

The LINKS community launched the **#BeatThePressure** campaign to promote the adoption of the new WHO hypertension guideline, including strategies such as task sharing and affordable medications: https://linkscommunity.org/activities/beat-the-pressure-campaign

We're in the middle of the campaign and have been sharing resources: social media kit, summary on the hypertension guideline, template letter to write to your Ministry of Health, and a template to draft an Op-Ed that can be used in advocacy work.

NEWS FROM WHO

Submitted by Dr. Prebo Barango, Medical Officer Non-Communicable Diseases, Inter-country Support Team for East and Southern Africa, WHO AFRO

Lancet publication on Hypertension

The WHO collaborated with the Imperial College London to publish a comprehensive global analysis of trends in hypertension prevalence, detection, treatment and control in *The Lancet.* The publication "Worldwide trends in hypertension prevalence and progress in treatment and control from 1990 to 2019: a pooled analysis of 1201 population-representative studies with 104 million participants" highlights that the number of adults aged 30–79 years with hypertension has increased from 650 million to 1.28 billion in the last thirty years. It also indicated that more than half of people (53% of women and 62% of men) with hypertension, or a total 720 million people, were not receiving the treatment that they need. Blood pressure was controlled, which means medicines were effective in bringing blood pressure to normal ranges, in fewer than 1 in 4 women and 1 in 5 men with hypertension. See WHO press release here.

New WHO guideline for hypertension treatment

WHO released in Aug 2021 the WHO Guideline for the pharmacological treatment of hypertension in adults. This guideline provides new recommendations to help countries improve the management of hypertension. In addition, the guideline provides the most current and relevant evidence-based guidance on the initiation of medicines for hypertension in adults. The recommendations in the guideline cover the level of blood pressure to start medication, what type of medicine or combination of medicines to use, the target blood pressure level, and how often to have follow-up checks on blood pressure. In addition, the guideline provides the basis for how physicians and other health workers can contribute to improving hypertension detection and management.

Strategic spotlight WHO hypertension guideline: implementation & next steps

As part of efforts to ensure wide dissemination of the guideline on the pharmacological management of hypertension in adults, WHO organized a spotlight event. The webinar was attended by national NCD Directors and Programme Managers from the Ministries of Health, and other key implementers of NCD programmes at national and regional levels as well as from across the WHO regions. The meeting was opened by Dr Bente Mikkelsen, Director, NCD Department, WHO Geneva. WHO technical staff from HQ departments highlighted the work on hypertension guidelines implementation. During the webinar, WHO regional offices shared experiences and best practices on the management of hypertension, to inform implementation for impact at country level.

ISH SOCIETY NEWS

International Society of Hypertension

President's Blog

Check out the latest ISH President's Blog, written by Professor Maciej Tomaszewski, for up-to-date information straight from the ISH President.

Women in Hypertension Research Newsletter

The International Society of Hypertension Women in Hypertension Committee (ISH WiHRC) is making great strides in bringing together women working in hypertension research globally. We encourage you to read the 2nd issue of the Women in Hypertension Research Network newsletter to find out more.

Monthly E-Bulletin and Hypertension News

We also invite you to read the latest issues of the monthly ISH E-Bulletins and read the latest edition of ISH Hypertension News, the official quarterly newsletter of the ISH. This issue features differences between the sexes in hypertension, regional issues in hypertension and an introduction to Tony Heagerty as the new Editor-in-Chief for the *Journal of Hypertension*.

ISH KYOTO 2022 MEETING (12-16 October 2022)

Please watch our **invitational Kyoto 2022 Meeting video** and help us to promote the meeting. You will find our **promotional toolkit** on the meeting website and you can **register here.**

See you in Kyoto in October 2022!

Hiroshi Itoh, MD PhD

Chair, ISH 2022 Kyoto **#ISH2022 #Kyoto**

Visit **www.ish-world.com** for further information on the work of the Society or follow us on Twitter @ISHBP.

NATIONAL HYPERTENSION CONTROL ROUNDTABLE (NHCR)

Submitted by Sharon Nelson, MPH, Senior Program Manager, National Hypertension Control Roundtable
National Association of Chronic Disease Directors

The National Hypertension Control Roundtable (NHCR) launched its efforts to eliminate disparities in hypertension awareness, prevalence, and control as a part of its inaugural NHCR Annual Summit on September 20 and 21, 2021. The Summit focused on elevating strategies for advancing health equity in hypertension control by hearing from thought leaders, sharing resources and the latest data, as well as highlighting successes and lessons learned. Summit participants represented over 50 organizations that collaborated to advance proven and innovative strategies to eliminate disparities in control rates.

NHCR leaders from CDC's Division for Heart Disease and Stroke Prevention, American Heart Association, and National Forum for Heart Disease and Stroke Prevention kicked off the Summit by emphasizing the continued need to elevate hypertension control as a national priority. They also highlighted the importance of cross-sector collaboration to meet the *Surgeon General's Call to Action to Control Hypertension*, released in October 2020.

The Summit featured presentations on strategies for achieving hypertension control and eliminating disparities as well as policy approaches to hypertension control. Panel discussions centered on methods for scaling community-clinical partnerships and implementing systems changes to optimize hypertension control in healthcare settings. Through thoughtful dialogue within small-group sessions, the participants ended each day refining NHCR's Strategic Framework objectives.

The NHCR's Strategic Framework aims to (1) support people in controlling their blood pressure wherever they live, learn, work, play and pray; and (2) equitably advance patient care in support of hypertension management. It prioritizes team-based care and the critical roles of team members and is exploring how clinical care teams can engage community partners in linking individuals to necessary supports outside of the healthcare setting. For more information, please contact: HTN80@chronicdisease.org or click here to join.

COALITION FOR ACCESS TO NCD MEDICINES & PRODUCTS

Submitted by Molly Guy, Senior Program Officer, Noncommunicable Diseases

Inconsistent access to medicines and products has a devastating impact on people living with NCDs. Given the unique challenges contributing to the low availability of NCD medicines, building the capacity of health and supply chain systems to forecast NCD medicine and product needs is a critical first step in improving the performance of

NCD supply chains in low- and middle-income countries. The Coalition for Access to NCD Medicines and Products, in partnership with the MOHs in Kenya and Uganda, have developed a Forecasting Tool for Essential NCD Medicines and Products (NFT). Over the past several months, with support and facilitation by Coalition members, the MOH teams have utilized the NCD Forecasting Program to develop five year costed forecasts for diabetes and hypertension medicines and health products.

In October, the NCD Department within the Kenya MOH proposed national government funding (i.e., a conditional grant) to fund medicines and products needed for hypertension and diabetes care at the health center level. In Uganda, the budget developed during the forecasting workshop illustrated the gap between what was currently funded and what was needed. Following a recent meeting between the MOH, Department of NCDs, and the parliamentary committee for health, a motion was passed which urged the government to provide free medicines to Ugandans living with diabetes, hypertension and by extension, all NCDs, and increase NCD medicines budgets

The Coalition looks forward to continued impact as we look to scale the Forecasting Initiative in 2022! Learn more about the this important supply chain strengthening initiative: https://medium.com/@coalition4ncds/strengthened-forecasting-for-hypertension-and-diabetes-medicines-and-products-in-kenya-uganda-69ed84124362

NEWS FROM PAHO

HEARTS in the Americas Initiative – at 21 Countries and Counting!

This report was prepared by HEARTS in the Americas Team Andres Rosende, MD; Yenny Rodriguez, MD; Cintia Lombardi, ScD, and Gloria Giraldo, DrPH under the coordination of Pedro Ordunez, Ph.D. MD.

The HEARTS in the Americas Initiative, the Pan American Health Organization (PAHO) flagship program for cardiovascular disease (CVD) risk management and focus on hypertension control, **welcomes El Salvador and Costa Rica**, bringing to 21 countries the network of HEARTS implementing countries, reaching approximately 1000 primary care centers throughout the region of the Americas.

The HEARTS countries are updating the standardized treatment protocols for hypertension and CVD secondary prevention to be fully aligned with the new WHO hypertension treatment guideline. With the support of an expert consultative group, the HEARTS teams in each country worked on their hypertension treatment protocol, applying a standardized methodology and using an assessment tool based on the new WHO guideline and other robust scientific evidence. As a result, HEARTS countries have identified several areas for improvement, delineated an integrated clinical pathway, and are committed to implementing a better and more comprehensive protocol by 2022.

Additionally, building upon the success of the series of HEARTS virtual courses housed in PAHO's Virtual Campus Platform, with more than 70,000 newly enrolled health professionals in 2021, the new virtual course on Hypertension Control Drivers in Primary Health Care Centers has been developed by the HEARTS Innovation Group. The group, composed of practitioners from the 12 original countries, selected highly actionable hypertension control drivers and translated them into process measures: Implementation Maturity Index and Performance Index. The English version of the course can be accessed here.

New educational and training materials to support the implementation of the HEARTS in the Americas Initiative have been developed. Three successful monthly webinars on diverse topics have attracted over 7,000 participants. A webinar titled *Science in Action for Better Cardiovascular Health* was presented by researchers of Cuba, Mexico, and Oxford University. In addition, in celebration of the World Heart Day, the new *2021 WHO Hypertension Guideline*, was launched regionally, and the HEARTS innovation group presented on *Innovating in HEARTS: Hypertension Control Drivers & scorecards*. Furthermore, over 49,000 health professionals in the Americas have downloaded the HEARTS CVD Risk Calculator App. These resources aim to strengthen primary health care personnel's performance in diagnosing and treating hypertension.

Finally, HEARTS in Trinidad and Tobago released an excellent educational video that depicts the HEARTS Initiative implementation in their country with an exemplary portrayal of all stakeholders' perspectives on implementation, from the Ministry of Health to the patient with hypertension.

WORLD STROKE ORGANIZATION

Global Community Unites on World Stroke Day to Share Message 'Minutes Save Lives'

On Oct 29th, World Stroke Day, WSO members, partners, patients and caregivers, industry and communities around the world came together to share the message that when it comes to stroke, every minute counts. With a global audience reach this year of 2.3 billion, the **Minutes Save Lives** message was shared by members, partners and public accessing our toolkit to maximise awareness of the symptoms of stroke. From billboards on the streets of Bulgaria, to the incredible light-up of Christ the Redeemer in Rio, this year saw an incredible response to the campaign and visibility for stroke in communities around the world.

Among the many 'firsts' that WSD 2021 delivered were the first ever World Stroke Week campaign in Ethiopia, a global chain of indigo blue monument light ups from Sao Paulo to Singapore, the first stroke survivor opera performance and the first article on stroke symptoms in Tatler magazine. We also saw the first commitment to a national stroke action plan in Ghana.

A news release highlighting disparities in access to stroke units and essential stroke care was picked up by news media and bloggers around the world. A High Level panel event brought together stroke and NCD leaders while Olympian Michael Johnson shared his story of recovery and the impact that paying attention to the signs of stroke and having access to top quality care makes to stroke outcomes.

Campaign results
2.3 billion potential audience for the campaign
112 events registered on the Global Map of Action
184 million Twitter reach
1.4 million World Stroke Campaign Facebook reach
556K reach on Instagram
200 participants registered for WSD High Level Panel

We thank all of our members and partners who brought the campaign to life and helped drive global awareness of the importance of saving **#Precioustime** for stroke.

WELCOME TO NEW WHL MEMBER: MyWASSH

The WHL is pleased to welcome the **Malaysian Society for World Action on Salt, Sugar and Health (MyWASSH)** as a new associate member.

Mission Statement:
Hypertension is the major contributor to deaths worldwide. Many studies have shown the relationship of salt intake to blood pressure (BP) and that reduction in salt intake is associated with lower BP. Furthermore, a lower salt intake enhances the efficacy of the renin-angiotensin system inhibitors sued widely in the treatment of hypertension.

Studies have also shown that salt intake in Malaysia is higher than most developed countries like the UK. Furthermore, the World

Health Organization has advocated a reduction in salt intake to less than 5 gm per day. Malaysia's salt intake is high at around 8-9 gms per day. Great efforts and strategies are needed to be in place to help reduce salt intake.

The World Action on Salt and Sugar for Health (WASSH) set up in the UK has been very successful in reducing the level of salt intake in their country. Thus, building on this success and their experience, we in Msia have set up a similar organization to help reduce salt intake in Malaysia. We hope to work with UKWASSH on salt and sugar reduction for health.

The primary aims of this non-profit organization are:

- advocate for salt reduction for better health
- educate the public on the benefits of a low salt diet
- inspire other health care professionals to promote a low salt intake
- engage the food industry to lower salt in their food products
- engage restaurants, food stall operators to reduce salt in their food preparation
- make policy recommendations to relevant governmental authorities to reduce salt intake in foods particularly manufactured foods
- be an example to others for reduction in other food contents e.g. sugars in food

MyWASSH was registered with the Malaysian Registrar of Societies in October 2022 and Prof. Dr Chia Yook Chin is its founding president.

PUBLICATIONS SECTION

Emerging Authors Program for Global CVD Research

The Emerging Authors Program for Global Cardiovascular Disease Research (EAP) is an opportunity for early and mid-career public health trainees and practitioners from low- and middle-income countries to receive scientific writing and publication mentorship from global cardiovascular disease experts. The program – a collaboration of the Lancet Commission on Hypertension Group, Resolve to Save Lives, the U.S. Centers for Disease Control and Prevention, and the World Hypertension League – aims to expand the evidence base on reduction strategies for cardiovascular disease and associated risk factors while increasing opportunities for investigators from low- and middle-income countries to contribute to the scientific literature.

The program is currently in its second cycle. The first cycle resulted in the publication of 13 peer reviewed manuscripts in the August 2020 and April 2021 issues of the *Journal of Clinical Hypertension*.

The second cycle enhances the mentorship collaboration and program sustainability by actively engaging in-country mentors. Four EAP authors from Nigeria, Tunisia, and Uganda are currently finalizing manuscripts for submission to the *Journal of Human Hypertension* for peer review. Remaining EAP authors from the current cycle convened earlier this month to discuss timelines, share best practices, and present on the current status of their research and manuscript development. The researchers will continue to develop their manuscripts in collaboration with in-country and global mentors.

To read more about the EAP, check out the CDC story, Mentorship Builds Global Scientific Writing Capacity on Heart Disease | Division of Global Health Protection | Global Health | CDC.

JOURNAL OF HUMAN HYPERTENSION

Transformative Agreements

Submitted by Virginia Mercer, Senior Editor, Medicine and Life Sciences, Springer Nature

Journal of Human Hypertension
SPRINGER NATURE

The *Journal of Human Hypertension* is a transformative journal; meaning Springer Natures Transformative agreements enable participating institutions to combine journal subscription access along with Open Access publication costs (APCs). In addition to managing the cost and administration of OA, Transformative Agreements offer authors an easy way to comply with funders' OA requirements. If your institution has a Transformative Agreement, you may publish

your article OA with your fees covered in Springer Nature journals that are included in the agreement.

This means you could publish OA in the *Journal of Human Hypertension* without having the responsibility to cover the APC yourself, therefore it is worth taking advantage of when you are deciding upon where to submit your next research or review paper. Authors and readers of *JHH* can benefit from the following Transformative Deals: Council of Australian UniversityLibrarians, Hungary, Ireland, Manipal, Projekt DEAL Germany, Qatar, Switzerland, UK, and University of California.

PAST MEETINGS OF NOTE

WORLD HEALTH SUMMIT 2021

WORLD HEALTH SUMMIT

"We need a new multilateralism and a new social contract"

The World Health Summit (Berlin, Oct 24–26, 2021) ended with clear demands for collaboration and calls to action for policy makers. Three days with 377 speakers and 67 different sessions focused on the theme: **Learnings from COVID-19 for the future.**

Globally, around 6,000 participants from 120 nations took part in the international summit, with 1,100 attending on-site in Berlin. In addition, there were 130,000 views on the WHO's Twitter account where the four World Health Summit sessions with WHO Director-General Tedros were streamed live.

The Finnish Prime Minister Sanna Marin spoke on the final day, stressing: "Health budgets are an investment that makes societies and economies stronger, more resilient and more equal. We need to rethink our policies, globally and locally. The question is how to make us collectively and as individual societies better prepared and more resilient for future crises and threats." World Health Summit President Axel R. Pries called for more solidarity: "We need global responses to global challenges."

Learnings from COVID-19, clear statements on pandemic preparedness and response, vaccine equity and new international strategies were also the core themes of the World Health Summit's final declaration, **the M8 Alliance Declaration,** with calls to action on vaccine equity, strengthening the global health architecture, and supporting all countries to invest in primary health care. The M8 Declaration can be accessed here. Click here for more on program and speakers and press and recordings of all World Health Summit sessions.

7th INTERNATIONAL SHMS CONFERENCE

SHMS SAUDI HYPERTENSION MANAGEMENT SOCIETY

Submitted by Dr. Bader Almustafa, MBBS, Ministry of Health Saudi Arabia, WHL Board Member

The Saudi Hypertension Management Society (SHMS) Conference held its 7th international conference from 24th – 27th November 2021. It was held virtually and gathered more than 60 speakers in more than 70 talks and workshops. The conference brought together a network of key players, renowned scientists and professionals representing all the fields that deal with hypertension, including all medical specialties, epidemiology, nursing and research. Multiple speakers from the WHL and ISH contributed in the event, as well.

Major changes continue to occur in cardiovascular care and epidemiology worldwide and in the Middle East region. This region is facing a big challenge in the accelerating morbidity of cardiovascular risk factors, where hypertension is leading. Hence the conference theme was "Hypertension and Cardiometabolic Diseases".

More information about the conference and future meeting dates can be found at this link.

WORLD STROKE CONGRESS 2021

It was a pleasure to welcome over **2,060 participants from 110 different countries to the 13th World Stroke Congress!** We united as one community focused on tackling stroke and spent 2 inspiring days filled with the latest discoveries in science, research, and technology. Together we connected, collaborated, and advanced our practice.

WSC 2021 was host to:
470+ E-posters
50+ oral presentations
5 Important clinical trial results
40+ Scientific Sessions
9 free communication sessions
7 WSC talks
6 Debates & 3 case discussions
5 Joint Sessions with partner organisations
4 RAISE and TTST satellite sessions
4 Teaching courses & 2 workshops

We are thankful to our participants, speakers, supporters and exhibitors for taking the time out of their busy schedule make WSC 2021 a great success.

World Stroke Congress 2022 in Singapore
SAVE THE DATE
26th- 29th October

EDUCATIONAL RESOURCES SECTION & RECENT PUBLICATIONS

Stroke Prevention

The Lancet recently published ***Primary Stroke Prevention Worldwide: Translating Evidence Into Action***, which emphasizes control of hypertension, the premier risk factor for stroke, and provides an overview of the current situation regarding primary prevention services, the cost of stroke and stroke prevention, and deficiencies in existing guidelines and gaps in primary prevention. It offers a set of pragmatic solutions for implementation of primary stroke prevention, with an emphasis on the role of governments and population-wide strategies, including task-shifting and sharing and health system re-engineering (Main author: Prof. Mayowa Ojo Owolabi, MBBS, MSc).

Accurate Automated Blood Pressure Measurement Certification Course

This free automated blood pressure measurement certificate course is available at this link, illustrating step by step how to properly measure blood pressure, as well as factors that can alter the measurement and give misleading records. This course is an initiative of PAHO joined by the WHL, the Lancet Commission on Hypertension Group and Hypertension Canada, and Resolve to Save Lives, and academically developed by a group of highly qualified experts recognized worldwide.

Mission
The objectives of the WHL are to promote the detection, control and prevention of arterial hypertension in populations. The World Hypertension League (WHL) is a federation of leagues, societies and other national bodies devoted to this goal. Individual membership is not possible. The WHL is in official relations with both the International Society of Hypertension (ISH), and the World Health Organization (WHO).

The WHL Newsletter is published quarterly by the World Hypertension League (ISSN 2077-7434).

Calendar of Events

AHA International Stroke Conference
February 9 - 11, 2022
New Orleans Virtual
click here

World Congress of Nephrology
February 24-27, 2022
Kuala Lumpur, Malaysia
click here for registration

National Kidney Foundation's Spring Clinical Meetings
April 6-10, 2022
Boston, Massachusetts, USA
click here

American College of Cardiology
April 2-4, 2022
Washington DC and Virtual
click here

PreHT 2022
April 7-10, 2022
Zagreb, Croatia
click here for information

European Society of Hypertension 2022
June 17-22, 2022
Athens, Greece and Virtual
click here

Hypertension Council Sessions 2021
September 7-10, 2022
San Diego, California
click here for registration

ISH Kyoto 2022
October 12-16,2022
Kyoto, Japan
Click here for information

World Health Summit
October 16-18, 2022
Berlin & Digital
click here for registration

14th World Stroke Conference (WSC)
October 26-29, 2022
Singapore
click here for registration